

UKP: UK Preserved

SpotLog Dataset Book

Contents

BR Diesel 23
BR Diesel Railcars 109
BR Electric 115
BR Multiple Units 137
BR Steam 249
GWR 266
LMS 329
LNER 390
SR 441
WD 484
London Underground 494
Metropolitan Railway 515
Glasgow Underground 520

Generated by https://spotlog.org/locolist on 10/24/2026



SpotLog

SpotLog is an app and website for Trainspotters that runs on Android smartphones, iPhones and iPads. The SpotLog app allows you to record loco and unit numbers, keep a log of trains seen and mark the sightings off in the app's 'book' section. The SpotLog website includes a database of railway vehicles, including locomotives, carriages, multiple units, trams and metros. The data covers the UK and many European railway networks.

SpotLog data is maintained and updated by SpotLog users from many different data sources. SpotLog data is not offical and makes no claims to accuracy. The data in the website and app is offered on face value. The SpotLog team makes every effort to keep the data accurate and uptodate and accepts no liability for inaccuracies. We are always happy to receive corrections and updates through the SpotLog website or by email to updates@spotlog.org

https://spotlog.org

About this document

This PDF document was generated from the SpotLog database on 10/24/2026.

SpotLog data is regularly updated, check the website for latest data and updates.

This PDF can be downloaded from https://spotlog.org/locolist/pdf/fetch?setcode=UKP

Copyright SpotLog.org, 2026

Codes

Status

A	Active
C	Construction/On Order
D	Display
E	Exported / Overseas
H	On Hire
I	Industrial
M	Dismantled
N	Renumbered
O	Overhaul
P	Preserved
R	Restoration in progress
S	Stored
T	Testing/Crew Training
U	Unknown
V	Converted
W	Withdrawn
X	Scrapped
Z	Parts Donor

Livery

???	Unknown
???	Owner Unspecified As At 31/03/94
???	Unknown
~	ARC Southern. Later to Hanson Aggregates Ltd
~	PRE
~	Test
~	Static cafe seating. Was previously electrification works vehicls.
~	Roof section only
~	~
~	
~	Steam Trust
~	Static cafe seating. Was previously electrification works vehicls.
003	Euro Cargo Rail - Light Grey with Euro Cargo Rail in Maroon lettering and EWS logos on cabsides.
028	DRS Anniversary (as DRV but with ''25 Years of Direct Rail Services'' branding

035	Army Green
035	WDG
036	Improved Engine Green
045	Scotrail - Locomotives - Black & Grey with Blue stripe & Scotrail branding.
047	SR Malachite Green
047	BR(S) Malachite Green
047	SR Green
047	Steel on Steel-various colours
054	Garter Blue
054	LNER Blue
055	Olive Green
055	Olive
055	Olive green/black
062	Wantage Tramway Red
063	Furness Railway Brown
064	WD Grey
066	TVR Black
067	Midland Red
068	NER Green
069	NSR Maroon
070	LTSR Green
071	L&Y Black
072	HR Green
073	LSWR Green
074	Black with Orange tanks
104	Royal Mail all over Red
125	intercity
125	IC
125	Inter City livery
125	BR intercity
125	Intercity 125 original - Blue and Grey with Yellow cab roof and lower stripe.
125	125 Group
APT	Advance Passenger Train - Dark Grey/White/Red/Light Grey with yellow front (similar to ICS)
ATT	Arriva Trains Wales - DMU - Light Turquoise ends with Dark Turquoise centre section, Powder Blue doors and White Arriva/Welsh
ATW	Arriva Trains Wales
ATW	Arriva Trains - Turquoise Blue with White swirl at driving ends and Pale Blue doors. Arriva branding. (no swirl on LHCS)
BLG	BR - Blue & Grey lined out in White.
BLG	Battlefield Line DMU Group
BLK	Bk

BLK	Black
BLK	Blaxk
BLK	Black
BLL	BR Revised - Blue with Yellow cabs, Grey roof, large numbers and full bodyside height BR Logos.
BLO	Black with Orange stripes
BLR	Blue/Red
BLU	All over Blue
BLUE	Blue
BLUE	Blue
BPM	Blue Pullman - Nanking Blue with White window surrounds (overall Blue for locos).
BRB	BR Blue
BRB	Pseudo BR Blue
BRB	BR blue
BRD	BR - Departmental - Plain Dark Grey with Black cab doors and window surrounds.
BRT	BR - Trainload Freight - Two Tone Grey with Grey cab roof and Black cab doors.
BXB	BR Express Blue
CAB	Caledonian Railway - Blue
CAR	BR - Carmine & Cream lined out in Black & Straw. (Blood & Custard).
CAR	Carmine and Cream
CAR	~
CAS	Caledonian Rail Leasing
CAS	Caledonian Sleeper - All over Midnight Teal
CFD	CFD France - Orange & White
CHC	BR or GWR - Chocolate & Cream lined out in Gold.
CHC	Faded Chocolate and Cream
CHC	Brown & Cream
CHC	Chocolate & Cream
CHC	Chocolate & Cream livery
CHC	Chocolate and Cream
CIV	BR - Civil Engineers - Falcon Grey lower bodysides
CLA	Crimson Lake
CNX	Connex - White with yellow
COL	Colas Rail (Seco-Rail) France – Lime Green, Orange and Black with Colas Rail branding.
COL	Colas Rail
COL	Owner
COL	Colas Rail
CRB	Chiltern Railways Blue - (MK5A and class 68) - Navy blue with 2 lighter shades of blue, and Chiltern Railways branding
DCR	Devon and Cornwall Railway
DCR	Devon

DLL	MOD - Defence Logistics Organisation - Purple and White.
DRC	Devon Railway Centre
DRC	Direct Rail Services - (revised) - Deep Blue with Large Light Blue bodyside panel and Green DRS Compass logo branding.
DRS	Direct Rail Services - Deep Blue with Light Blue or Dark Grey roof & DRS branding. (LHCS with Light Blue horizontal stripes).
DRS	Direct Rail Services
DRS	Direct Rail Services
DRS	DRSL
EMT	East Midlands Trains - Connect - Dark blue body with Yellow doors and Red and Orange ''swish'' at driving ends.
EMT	East Midlands Trains
EPS	European Passenger Services - Two Tone Grey with Dark Blue roof & EPS Logos.
EPX	Europhoenix - Silver and Blue with Red & White Phoenix logos.
EUS	Eurostar - Class 373 - White with Dark Blue window surrounds and Grey & Yellow lower bodysides, Eurostar Logos & branding.
EUS	Eurostar
EWS	DB Schenker - EWS - Maroon bodyside & roof with Gold Stripe. EWS lettering and large numbers.
FER	Fertis (France) - Grey with narrow Red & Blue sole bar stripes and Fertis logos.
FGB	First Great Western - Dark Blue with FGW branding. (Pink doors on units.)
FLF	Freightliner 2 tone grey with black doors and windows
FLY	Freightliner 1995 - Two Tone Grey with Black cab doors & Freightliner Red Triangle Logos.
FNW	First north-western blue/gold star
FSP	Strathclyde PTE - Carmine body and Cream window surrounds. Cream doors and SPT branding, some with Turquoise stripe.
GBU	GBRF Blue
GBU	GBRf – Blue with Yellow cabs and GBRf branding
GCR	Grand Central Railway
GCR	GCR Green
GER	GER Blue
GER	GER ultramarine
GMP	Great Manchester orange/brown
GMT	Great Midlands Trains Turquoise
GNER	GNER - Navy blue with red horizontal stripe and white GNER writing
GNG	GNR Green
GOL	Golden Ochre

GOL	Golden Ochre
GRE	Green (Plain Green, not BR/SR/GWR)
GRE	Fading Green
GRE	Green
GRE	Green
GRE	Green
GRE	Dark Green
GRN	Brunswick Green
GRN	GWR Green
GRN	Green - Plain or Two Tone (BR/SR/GWR style).
GRY	Gray
GRY	Grey
GWU	First Group - Great Western Railway. Multiple units - Dark Green with Grey diagonals and Silver Grey doors. GWR branding
HNR	Harry Needle Railroad Co. - Orange/Grey lined out in Black with HNRC branding.
HOG	Hogwarts - Bright Red version of BR Green
HST	Original HST Blue & Yellow
HST	Heritage Shunters Trust
ICE	East Coast
ICE	InterCity Executive yellow and light grey lower bodyside a red stripe and dark grey upper bodyside
ICM	BR - InterCity Mainline - Dark Grey/White/Red/Light Grey
ICS	BR - Original InterCity - Dark Grey/White/Red/Light Grey.
ICW	InterCity Swallow
KWB	K
KWB	K&WVR Brown
KWM	K&WVR Maroon
LBK	Lined Black
LBL	Laira Blue
LBS	LBSCR Green
LBS	LBSCR Grn
LMI	London Midland
LMI	London Midland - White with Green unit ends and centre stripe, broad Black window surrounds and Dark Green doors. London Midland
LMRB	Longmoor Military Blue with red solebar and red below solebar and LMR lettering/numbers in yellow
LMRB	LMR Blue
LMS	London Midland Society
LMS	LMS Crimson
LNE	LNER Tourist Style Green & Cream.
LNE	LNER Green
LNER	LNER - Signalbox Grey with Purple stripe, Grey doors and LNER branding

LOR	LORAM UK
LOR	Loram - Red, White and Grey
LUL	London Transport Red (483007 has 1938 London Transport and Underground branding on sides and windows).
LUL	London Underground
LUL	LT red
MAR	~
MAR	~
MAR	Maroon
MAR	Faded Maroon
MAR	Fading Maroon
MAR	Maroon lined out in Straw and Black (BR or LMSR style).
Met	Metropolitan Line
MLF	BR - Mainline Freight - Aircraft Blue with Silver stripe & Mainline Logos & branding.
MLG	BR - Mainline Freight - Two Tone Grey with Mainline Freight Logos and Black door surrounds.
MML	Midland Mainline Teal
MMLB	Midland Mainline Blue with Grey and White stripes
NBB	NBR Blue
NCB	NCB Blue
NOR	Northern Rail - Deep Blue base with Lilac & White panels, White doors and Northern branding.
NOR	Northern Rail
NRL	Network Rail Locomotives/Departmentals - Yellow with Grey/Black roof and NR logos
NRL	Network Rail
NRL	Network Rail
NRL	NR
NSE	BR - Original Network South East - Blue upper body, White and Grey lower body with Red stripe and no branding.
NSG	Nederlandse Spoorwege Yellow and Grey
NSJ	NSE Jaffa Cake
PRB	Prussian Blue
PUL	Pullman Rail
PUL	Pullman Car Company - Umber & Cream with Gold lettering.
PUL	Pullman
PUL	Piullman
RED	Red
RES	Rail Engineering Services
RES	Rail Express Systems - 1/3 Dark Grey & 2/3 Red with Blue markings, Black cab doors and RES Logos.
RFA	BR - Railfreight - Grey with Yellow cab, BR Logo and Railfreight branding (1980''s style)
RFD	BR – Railfreight Distribution – Two Tone Grey
RFE	EWS - Two tone Railfreight Grey with full height EWS logo vinyls.

RFG	BR - Railfreight - Grey Bodyside, Yellow cabs, Red buffer beams/stripe at solebar level and large double arrow.
RFI	BR - Railfreight Distribution International - Two Tone Grey with Red & Yellow logos and Blue cab roof & Euro branding.
RFM	Railfreight Metal
RIV	Riviera Trains - Locomotives - Oxford Blue with Yellow cab fronts and window surrounds.
RIV	Riviera Trains
RIV	Riviera Trains
RMS	RMS Locotech - Blue
RMS	RMS Locotec
ROZ	Royal Train (revised) - Claret with Royal Coat of Arms.
RRG	Regional Railway GMPTE Gary
RRG	Regional Railway GMPTE gray/Red
RRR	Regional Railways - Dark Blue/Grey with Light Blue & White Stripes & RR branding.
RSS	Rail Support Services grey
RSS	Railway Support Services
SBB	BR Standard Blue (with Small Logos on locos).
SCE	East Midlands Trains – Mainline – White with Blue window surrounds and lower body, Red/Orange stripe at cab ends, Red doors, EMR Logos
SE2	SouthEastern – White with Black window surrounds and Pale Blue doors & Blue lower body stripe - (Black lower body stripe on some
SECR	SECR Green
SLF	Silverlink - Blue & Lime Green with a White striple
SWR	South West Trains - Inner Suburban - Revised - Variation on SWM with Yellow doors
SWR	SWT
SWR	South West Railway
SWS	South West Trains - Inner Suburban - Red with Blue doors (Yellow doors surrounds). Blue & Orange cab swirls and SWT branding,
SWZ	Midnight Blue, with Orange Stripe and Swietlsky branding
TFL	Transport For London
TFL	LU
TFL	LUL
TFL	TFL - White with dark blue solebar and doors, with a yellow front
TGG	Transrail - Two Tone Grey with Transrail ''Big T'' Logos.
USA	USATC Grey
UUU	Undercoat
UUU	Overhaul
UUU	UC
UUU	Undercoat - Grey or White.

VAN	Vanguard HydroSHUNTER - Dark Green/White/Red/Light Grey, like ICS but Dark Green instead of Dark Grey
VTR	Virgin Trains – Red with Black doors extending into bodysides. (3 White lower bodyside stripes.
VTR	VTI
WAB	Wabtec Rail Limited - Black with Red & White Wabtec Logos & branding.
WAB	Wabtec Rail Group
WCR	West Coast Railways
WCR	West Coast Railways
WCR	West Coast Railway Company - Maroon with Black mid-height bodyside stripe, Yellow ends and WCRC branding.
WPR	Wemyss Private Railway Brown
WYP	West Yorkshire cream/red
YEL	Yellow
YEL	Yellow

Pool

~	ARC Southern. Later to Hanson Aggregates Ltd		
~	PRE		
~	Test		
~	Static cafe seating. Was previously electrification works vehicls.		
~	Roof section only		
~	~		
~			
~	Steam Trust		
~	Static cafe seating. Was previously electrification works vehicls.		
ACAC	AC LOCOMOTIVE GROUP AC ELECTRIC LOCOMOTIVES	BH LM WB	
ACXX	AC LOCOMOTIVE GROUP	VARIOUS	STORED LOCOMOTIVES
AWCA	WEST COAST RAILWAY OPERATIONAL DIESEL LOCOS	CS	
AWCS	WEST COAST RAILWAY	CS	STEAM LOCOMOTIVES
AWCX	WEST COAST RAILWAY	CS	NON-OPERATIONAL DIESEL LOCOS
CFOL	CLASS 50 OPERATIONS LTD. PRESERVED CLASS 37/50 OPERATIONS	KR	
CFSL	Class 40 Society Locomotives		
COFS	COLAS RAIL (AMEY SECO)	RU	

COLS	COLAS RAIL (AMEY SECO)	AW	RU	STORED LOCOMOTIVES
COTS	COLAS RAIL (AMEY SECO)	ZE		LOCOMOTIVES FOR REFURBISHING
DBLX	DELTIC PRESERVATION SOCIETY		BH	CB YK DPS CLASS 55''s
DEMO TRAIN	TfL Heritage Demonstration Train			
DHLT	FREIGHTLINER	FD	FE	WZ STORED/SURPLUS/NOT IN MAIN LINE USE LOCOMOTIVES
DNLL	DELTIC 9000 LOCO LTD	VARIOUS	FOR HIRE	
E	BR Eastern Region			
EFPC	FIRST GREAT WESTERN	LA	LE	OO FGW Class 43
EFSH	FIRST GREAT WESTERN	LA	LE	PM PZ OC FGW SHUNTERS
EPEX	EUROPHOENIX	AW	BO	LOCOS FOR EXPORT
EPRL	Eueophoenix Rail Leasing			
EPUK	EUROPHOENIX	LM	UK	LOCOMOTIVES
ERSL	Eastern Rail Services Locomotives			
FAMT	PRIVATE OWNER			37379 37264 37407 37424
GBBR	GBRf	SE	CLASS 73/9 - BRUSH	REPOWERED
GPSL	EUROSTAR UK	TI	FF	LY EUROSTAR SETS
GPSN	EUROSTAR UK	OC	OPERATE FROM TI	(DBS MAINTAINED)
HAPC	SCOTRAIL RAILWAYS	PC	Mk3	PUSH/PULL COACHES
HEHQ	MERSEYRAIL			HEADQUARTERS
HISE	RAIL VEHICLE ENGINEERING	DY	EAST	MIDLANDS TRAINS SHUNTERS
HNRL	HARRY NEEDLE RAILROAD CO		BH	HIRE FLEET
HNRS	HARRY NEEDLE RAILROAD CO		BH	STORED LOCOS
HST	Original HST Blue & Yellow			
HST	Heritage Shunters Trust			
HTLX	BARS LOCOMOTIVES			
HVAC	Hanson			
HYHQ	SOUTH WEST TRAINS			HEADQUARTERS
ICHP	125 Group HST Power Cars			

KDSD	BOMBARDIER	ZD ZF	DONCASTER	
LRLO	Loram Locomotives			
LSLO	Locomotive Services Operational Locomotives			
LSLS	Locomotive Services Stored Locomotives			
M	BR London Midland Region			
MBCS	Privately Owned - Coaching Stock			
MBDL	NON TOCVARIOUS	PRIVATE OWNER - DIESEL LOCOS		
MBED	NON TOCPR	PRIVATE OWNER - CLASS 73		
MBEL	NON TOCVARIOUS	PRIVATE OWNER - ELECTRIC LOCOS		
MBSL	NON TOCVARIOUS	PRIVATE OWNER - STEAM LOCOS		
MOLO	RT RAIL LIMITED	BH DY	HIRED FLEET SHUNTER LOCOS	
NRLO	NEMESIS RAIL	BH	LOCOMOTIVES ON HIRE	
NRLS	NEMESIS RAIL	BH	EX. FM RAIL STORED LOCOS	
PRES	VARIOUS PRESERVATION SITES	PR	SOLD TO PRES''N SOCIETIES	
QADD	NETWORK RAIL	DF	DIESEL LOCOS	
QCSS	NETWORK RAIL	AL	SANDITE VEHICLES	
RAJV	SRPS Class 37 Locos			
RFSH	Wabtec Class 08			
RMSX	RMS Locotec Class 08			
RTSO	RIVIERA TRAINS	CP	OPERATIONAL SHUNTERS	
RVLO	RAILWAY VEHICLE ENGINEERING DERBY	DF	OPERATIONAL LOCOMOTIVES	
SAXL	EVERSHOLT RAIL LTD.	HQ	OFF LEASE	
SBXH	Porterbrook Leasing - Coaches Stored			
SBXL	PORTERBROOK STORED LOCOMOTIVES			
Sc	BR Scottish Region			
SCEL	ANGEL TRAINS STORED LOCOMOTIVES			
SCXH	Angel Trains - Coaches Stored			
TTLS	TRADITIONAL TRACTION	VARIOUS AT GOODMAN''S YARD WISHAW/COLNE VALLEY RLY		
TTTC	TYPE THREE TRACTION GROUP	CS	CLASS 37 FOR LEASE	
UKRM	UK Rail Leasing Non Mainline Locomotives			
UKRS	UK RAIL LEASING	LR	STORED	
VSBP	NON TOCSL	PRIVATE OWNER - LHCS		
W	BR Western Region			
WQDA	DB SCHENKER RAIL (UK) LTD.	HQ	STORED LOCOMOTIVES SURPLUS - GROUP 4	

Owner

~	ARC Southern. Later to Hanson Aggregates Ltd
~	PRE
~	Test
~	Static cafe seating. Was previously electrification works vehicls.
~	Roof section only
~	~
~	
~	Steam Trust
~	Static cafe seating. Was previously electrification works vehicls.
101	Ochre & White
101	101692 Group
107	Class 107 Ltd
125	intercity
125	IC
125	Inter City livery
125	BR intercity
125	Intercity 125 original - Blue and Grey with Yellow cab roof and lower stripe.
125	125 Group
125H	125 Heritage
125P	125 Preservation
20	Class 20189
2L	Class 20 Locomotives
37	Scottish 37 Group
40	Class 40 Preservation Society
40	Class 40 Preservation Society
400	400 Series Preservation Group
4SUB	4 SUB Preservation Ltd
50	The Class 50 Alliance
50	Class 50 Alliance
504	Class 504 Preservation Society
5542	5542 Ltd
5542	Owners of loco 5542
5542	Locomotive 5542 Ltd
56	Class 56 Locomotives
58L	Class 58 Locomotive Group
5BEL	5BEL Trust
5BEL	%BEL
70	7029 Clun Castle
71	71A Locomotives

71	71A Group
73130	73 130 Ltd
828	CR 828 Trust
ACLG	AC Locomotive Group
AFRPS	Appleby-Frodingham Railway Preservation Society
AFS	Arlington Fleet Service
AN	Andania Engineering
AN	Allerton (Liverpool)
ANG	Angel Trains
ANG	Anglia Railways Turquoise Blue with a White Stripe
BAR	Bardon Aggregates
BBL	Bluebell Railway
BBL	Bluebell Railway
BEA	Beacon Rail
BEA	Beacon Rail
BEA	Beacon Rail Blue
BEL	Belmond Group
BEL	Belmond UK
BLG	BR - Blue & Grey lined out in White.
BLG	Battlefield Line DMU Group
BMC	Bradford Metropolitan Council
BOD	Boden Engineering
BR	Bristol Bath Road
BR	Bardon Roadstone
BR	British Rail
BRSL	Bannffshire Rolling Stock Ltd
BRW	Birmingham Railcar Workgroup
BSHG	Blue Square Heritage Group
BWR	Bodmin and Wenford Railway Trust
CAM	Caledonian Railway - Maroon and White
CAM	Cambrian Railways
CDPG	Crewe Diesel Preservation Group
CDPG	Crewe Diesel Preservation Group
CDR	Cotswold Diesel Railcar Ltd
COL	Colas Rail (Seco-Rail) France – Lime Green, Orange and Black with Colas Rail branding.
COL	Colas Rail
COL	Owner
COL	Colas Rail
CRT	Cambrian Railways Trust
CRW	Chiltern Railways
CRW	Chiltern Railways - White with Blue window surrounds, thin Red stripe & CR branding. Light Blue doors.
D05	D05 Preservation Group
DCRT	David Clarke Rail Trust
DDG	Dales Diesel Group

DEPG	Diesel and Electric Preservation Group
DFD	Dean Forest DMU Group
DLPG	Durham Locomotive Preservations Group
DLW	Derby Lightweight Preservation Group
DMUWM	DMU Group West Midlands
DPR	DPR Carriage Group
DPS	Deltic Preservation Society
DPU	Diesel Unit Preservation Associates Limited
DPU	Diesel Unit Preservation Associates Ltd
DRS	Direct Rail Services - Deep Blue with Light Blue or Dark Grey roof & DRS branding. (LHCS with Light Blue horizontal stripes).
DRS	Direct Rail Services
DRS	Direct Rail Services
DRS	DRSL
DTG	Diesel Traction Group
DVR	Dart Valley Railway PLC
DVR	Dart Valley Railway Ltd
ED	Glasgow Eastfield
ED	Ed Murray and Sons
EEP	English Electric Preservation
EKR4	East Kent Railway (in care of 400 Series Preservation Group)
EOM	Electromotive Diesel Services
EOR	Epping and Ongar Railway
EP101	East Pennine Class101 Double Power Group
EPB	EPB Preservation Group
EPL	Europhoenix
ERM	Electric Railway Museum Ltd
ERS	Eastern Rail Services
ESH	ESH Rail
ESH	ESH Rail Services - BR Two Tone Grey with Yellow ESH Logo
ETL	Electric Traction Services - Silver body with Red Cabs and ETL branding.
ETL	Electric Traction Ltd
ETP	Electric Train Preservation Limited
EVL	Eversholt Rail
FB	Ferrybridge
FB	Francis Bourgeois
GBRF	GB Railfreight
GBRF	GB Railfreight
GBRF	GBR
GRT	Gloucester Railcar Trust
GWR	GWR lined out Green with cast name and number plates.
GWR	Great Western Railway
GWS	GWSL
GWS	Great Western Society

GWS	Great Western Society
GWS	Great Western Society
GWS	First Great Western (2015) Dark Green with GWR branding.
HAH	Hanson and Hall
HDL	Hastings Diesels
HNRC	Harry Needle Railroad Company
HNRC	HNR
HNRC	HNRS
HRD	Helston Railway Diesel Group
HST	Original HST Blue & Yellow
HST	Heritage Shunters Trust
HTG	Heavy Tractor Group
HTP	Heritage Traction Preservation
KDR	Keith and Dufftown Railway
LDRS	Llanelli and District Railway Society
LHR	Lakeside & Haverthwaite Railway Co Ltd
LMM	Llanelli and Mynydd Mawr Railway
LRC	Llangollen Railcars Ltd
LSL	LSLO
LSL	Locomotive Services Ltd
LSL	Locomotive Services Limited
MCLR	McLaren Rail
MEN	Mendip Traction and Rolling Stock Group
MGN	Midland & Great Northern Joint Railway Society
MGN	M and GN Society
MLS	My Little Sprinter Ltd
MNR	Mid Norfolk Railway Preservation Trust
MOD	Ministry Of Defence
MRTRG	MRT Railcar Group
MRTRGL	MRT Railcar Group & Llangollen Railcars Limited
MS101	Matthew Smith Class 101 Fund
N31	Northamptonshire 31 Group
NARC	Norfolk Antique and Reclamation Centre
NEM	Nemesis Rail
NEM	Nemesis Rail - White with red doors, dark blue Stripe along windows and a wide grey stripe with a narrower red stripe below the windows
NEM	Nemesis Rail
NNR	North Norfolk Railway
NNR	North Norfolk Railway PLC
NRG	Nottingham Railcar Group
NRM	National Railway Museum
NRM	National Railway Museum
NRM	National Railway Museum
Nth	Northern Line
NTH	Northumbria Rail

NTH	Northumbria Rail
NYD	North Yorkshire Moors DMU Group
NYM	North Yorkshire Moors Railway Enterprise
NYM	North Yorkshire Moors Railway
PBR	Powering Britain - Dark and Light Green
PBR	Pontypool & Blaenavon Railway
PLC	Plum & Custard
PLC	Peak Locomotive Company
PO	Polmadie
PO	Other Private Owner
PPL	Peter Pan Locomotives Company
PRE	Preservation Society
PRV	Private
PRV	Private Owner
PRV	Private owners
PRV	Private Members
PRV	PR
PRV	PTE
PRV	Private Owners/Industrial Liveries.
PSH	Pressed Steel Heritage Ltd
PTR	CRI
PTR	CRI
PTR	Porterbrook
PTR	Porterbrook - Blue
PTR	Porterbrook Leasing
PVR	Plym Valley Railway
PWT	Pete Waterman Trust
QRS	Quainton Railway Society
QRS	Quainton Railway Society
RDR	Royal Deeside Railway
REN	Renaissance Railcars
RES	Rail Engineering Services
RES	Rail Express Systems - 1/3 Dark Grey & 2/3 Red with Blue markings, Black cab doors and RES Logos.
RET	Railway Equipment and Traction Co
RIV	Riviera Trains - Locomotives - Oxford Blue with Yellow cab fronts and window surrounds.
RIV	Riviera Trains
RIV	Riviera Trains
RMS	RMS Locotech - Blue
RMS	RMS Locotec
ROMIC	ROMIC Group Limited
RSS	Rail Support Services grey
RSS	Railway Support Services
RTS	RTS grey middle with orange ends
RTS	Red Triangle Society

RUDD	Ruddington DMU Group
SBE	Steve Beniston
SDRT	South Devon Railway Trust
SDRT	South Devon Railway Trust
SERA	Suburban Electric Railway Association
SHW	Shaun Wright
SLL	Southern Locomotives Ltd
SRPS	Scottish Railway Preservation Society
SRPS	SRP
SRS	Sonic Rail Services
SWMLSC	South West Main Line Steam Company
TFL	Transport For London
TFL	LU
TFL	LUL
TFL	TFL - White with dark blue solebar and doors, with a yellow front
TJT	TJT Rail Ltd
UKR	UK Rail - Railfreight Grey with Yellow cabs.
UKR	UK Rail Leasing
VTN	VIN
VTN	Vintage Trains
VTN	Vintage Trains
VTN	Vintage Trains
WAT	Watkinson Trust
WCRC	WCR
WCRC	West Coast Railway Company
WEAR	Weardale Railway Trust
WEN	Wensleydale Railway PLC
WLA	Western Locomotive Association
WSR	West Somerset Railway plc
WSR	West Somerset Railway
WYV	WyvernRail PLC
WYV	WyvernRail PLC

Depot

~	ARC Southern. Later to Hanson Aggregates Ltd
~	PRE
~	Test
~	Static cafe seating. Was previously electrification works vehicls.
~	Roof section only
~	~
~	
~	Steam Trust

~	Static cafe seating. Was previously electrification works vehicls.
BD	Birkenhead North
BH	Barrow Hill Roundhouse
BL	Shackerstone (Battlefield Line)
BO	Bo'ness (West Lothian)
BQ	Bury (East Lancs Railway)
BS	Bescot
BU	Burton Wetmore (Nemesis Rail)
CL	Crewe LNWR
CQ	Crewe Heritage Centre
CS	Carnforth
CW	Colwick
CW	Colwick (Rectory Junction)-Boden Rail
DE	East Dereham (Mid Norfolk Railway)
DI	Didcot Railway Centre
DR	Doncaster Belmont Yard
FX	Felixstowe
GY	Rye Farm - Wishaw - Sutton Coldfield
HA	Haymarket
HO	Holbeck
HQ	Headquarters
IL	Ilford
IN	Industrial Site
KR	Severn Valley Railway (Kidderminster)
KT	Kineton
KY	Knottingley
LB	Loughborough (Brush Works)
LM	Long Marston
LP	Longport (Stoke-On-Trent)
LR	Leicester
NM	Nottingham Eastcroft
NY	Grosmont (North Yorkshire Moors Railway)
NZ	Newton Aycliffe (Hitachi)
PG	Peterborough New England
PR	Private Preservation Sites
PR	Preserved Location
RI	Ruddington (Great Central Railway Nottingham)
RJ	Colwick Rectory Junction (COLAS)
RL	Ropley (Mid Hants Railway)
RS	Ruislip
SE	St. Leonards-On-Sea
SH	Southall Railway Centre
SK	Swanwick (Midland Railway Centre)
SL	Stewarts Lane
SM	National Rly Museum - Shildon

SU	Selhurst
SW	Swanage Railway
TI	Temple Mills International
TM	Tyseley Locomotive Works
TS	Tyseley
WB	Wembley Traincare
WD	East Wimbledon
WF	Wansford (Nene Valley Railway)
WO	Wolsingham (Weardale Railway)
WS	Worksop (HNRC Swietelsky)
XX	Not Yet Allocated
YA	Great Yarmouth
YK	York Leeman Road
YM	National Rly Museum - York
ZA	Rtc Business Park, Derby
ZG	Eastleigh Works
ZN	Wolverton
ZT	T J Thomson Stockton

Name field

**	Name no longer carried

UKP: UK Preserved

UK preserved steam locos.

Preserved locomotives and units of British Railways.



This set contains primarily standard gauge loco's and units from BR or the constituent companies. For other loco's see narrow gauge set (UKNG) or industrial loco's set (UKIN).

Items are grouped by the "Big Four" (GWR/LNER/LMS/SR) or BR for later items.

BR Diesel

01

Class 01 Shunter

The British Rail Class 01 diesel locomotive was a short wheelbase 0-4-0 diesel-mechanical design intended for use in areas with tight curves and limited clearance.

Introduced	1956
Withdrawn	1980
Wheel Arrangement	0-4-0
Builder	Andrew Barclay Sons & Co. of Kilmarnock
Engine	Gardner 6-cylinder in-line, 4-stroke 6L3 engine
Transmission	Mechanical
Max Speed	14.5MPH
Weight	25tons
Length	23ft 8in
Width	8ft 5 1/2in
Height	11ft 10 1/2in
Power	102HP
TE	12,750lbf
Driving Wheel Dia	3ft 2in
Wheelbase	6ft

Number			Base	Livery
D2953	*11503*	A	Peak Rail	GRN
D2956	*11506*	A	East Lancashire Railway	BLK

01/5

Privately Owned Shunters



Class code 01/5 is used for any small privately owned shunter that can run on the national network.

Length	Varies
Width	Varies
Height	Varies
Wheel Arrangement	Various
Builder	Various

Number	Name		Note		Base	Livery
01526		*265, 307V*	S		HNRC Worksop	DLL
01529		*268, 310V*	A		Daventry IRFT	DLL
01530	Dolly	*269, 311V*	A		HNRC Worksop	SWZ
01531	COLONEL TOMLINE	*H432, 7018, 6578*	W		Peak Rail	028
01545	RIVER EDEN**	*253, 271V*	S		HNRC Worksop	DLL
01546		*255, 273V*	S		East Kent Railway	DLL
01547		*256, 308V, 266*	S		HNRC Worksop	DLL
01558		*DH23, 10226*	P	4wDH	Ribble Steam Railway	BLUE
01568	HELEN	*01554, 264V*	P		Chasewater Railway	GRN

BR Diesel

01573		*H006, 6294, 15*	S	0-6-0DH	Eastern Rail Services, Yarmouth	
01582	DL2	*H057, 10177*	S	4wDH	Eastern Rail Services, Yarmouth	
01583	Valiant	*459517, 422*	P	0-6-0DH	Moreton Park Railway - Hereford	GRN
01585	Scaz	*459518, 423*				035

02

Class 02 Shunter



The British Rail Class 02 are a class of twenty 0-4-0 diesel-hydraulic shunting locomotives built by the Yorkshire Engine Company in 1960 (first ten, D2850-D2859) and 1961 (D2860-D2869) for service in areas of restricted loading gauge and curvature such as docks. They had the door to the cab at the rear, with a railed veranda behind the cab; this feature was very unusual on British Rail locomotives although was used on many Yorkshire Engine Co. designs and is quite normal in North American practice.

Builder	Yorkshire Engine Company
Engine	Rolls-Royce C6NFL176 6-cyl. in-line
Transmission	Mechanical
Withdrawn	1975
Wheel Arrangement	0-4-0
Length	21ft 11 1/2in
Width	8ft 6in
Height	11ft 5 1/4in

BR Diesel

Introduced	1960
Power	100HP
Weight	29.06t
TE	15,000lbf
Max Speed	19.5mph
Driving Wheel Dia	3ft 4in
Wheelbase	6ft

Number			Base	Livery
02003	*D2853*	P	Mid Suffolk Railway	GRN
D2854		P	Peak Rail	GRN
D2858		P	Midland Railway - Butterley	GRN
D2860		P	Locomotion - NRM Shildon	GRN
D2866		R	Peak Rail	BRB
D2867		P	Northamptonshire Ironstone	GRN
D2868		R	Barrow Hill	GRN

03

Class 03 Shunter



The British Rail Class 03 locomotive was, together with the similar Class 04, one of British Railways' most successful 0-6-0 diesel-mechanical shunters. 230 were built at Doncaster and Swindon works between 1957 and 1962, and were numbered D2000-D2199 and D2370-D2399 (later 03004 to 03399). D2370 and D2371 were used as departmental locomotives and originally numbered 91 and 92 respectively.

Gauge	1435mm
Builder	BR Swindon, Doncaster

BR Diesel

Max Speed	28.5mph
Introduced	1957-61
Length	7920mm
Width	2590mm
Height	3720mm / 3610mm
Weight	30.7t
Engine	Gardner 8L3
Transmission	Diesel Mechanical
Power	152kW
TE	69.6kN
Driving Wheel Dia	1092mm
Wheelbase	2740mm
Wheel Arrangement	0-6-0
Withdrawn	2008

Number	Name			Note	Base	Livery
03020		*D2020, 11207*	S	Sonic Rail Services	Mangapps Railway Museum	BRB
03022		*2022, D2022, 11209*	S		Swindon and Cricklade Railway	BRB
03027		*D2027*	S		Peak Rail	BRB
03037		*D2037*	P		Royal Deeside Railway	BLK
03063	Paul A. Mobbs	*D2063*	P		Mid Norfolk Railway	BRB
03066		*D2066*	P		Barrow Hill	BRB
03073		*D2073*	P		Crewe Heritage Centre	BRB
03078		*D2078*	P		Stephenson Railway Museum	BLK
03079		*D2079*	P		Derwent Valley Light Railway	BRB
03084		*D2084*	P		Embsay & Bolton Abbey Steam Railway	GRN
03089		*D2089*	P	J Jolly	Mangapps Railway Museum	BRB

03094		*D2094*	P		Royal Deeside Railway	GRN
03099		*D2099*	P		Peak Rail	BRB
03112		*D2112*	P		Rother Valley Railway	GRN
03113		*D2113*	P		Peak Rail	BRB
03118		*D2118*	P		Great Central Railway (Nottingham) Ltd	BRB
03119	LINDA**	*D2119*	P	Reduced Height Loco (at Lydney for a service)	Gwendraeth Valley Railway	BRB
03120		*D2120*	P	Reduced Height Loco	Fawley Hill Railway	GRN
03134		*D2134*	O		Royal Deeside Railway	GRN
03141		*D2141*	P	Reduced Height Loco	Gwendraeth Valley Railway	
03144	Western Waggoner**	*D2144, 2144, MoD2144*	P	On loan from MoD	Wensleydale Railway	BRB
03145		*D2145*	P	D2578LG Reduced Height Loco	Moreton Park Railway - Hereford	BRB
03158	MARGARET - ANN**	*D2158*	P	Amber Valley Loco Group	Mangapps Railway Museum	GRN
03162		*D2162*	P		Llangollen Railway	BRB
03170		*D2170*	P		Epping & Ongar Railway	BRB
03179	CLIVE	*D2179*	P		Isle of Wight Steam Railway	NSE
03180		*D2180*	P		Peak Rail	BRB
03189		*D2189*	R		Ribble Steam Railway	BRB
03196		*D2196, 40*	S		W.D. Smith, Aysgarth Station	GRN
03197		*D2197*	P		Mid Norfolk Railway	BRB
03399		*D2399*	P		Mangapps Railway Museum	BRB

D2018		*11205, 03018*	P		Mangapps Railway Museum	GRN
D2023		*11210*	P		Kent & East Sussex Railway	GRN
D2024		*11211, 4*	S		Kent & East Sussex Railway	GRN
D2041			P		Colne Valley Railway	GRN
D2046			P		Colne Valley Railway	
D2051			S		Telford Steam Railway	GRN
D2059		*03059*	P		Isle of Wight Steam Railway	BLK
D2062		*03062*	P		East Lancashire Railway	GRN
D2069		*03069*	P		Gloucestershire Warwickshire Steam Railway	GRN
D2072		*03072*	P		Lakeside & Haverthwaite Railway	GRN
D2081		*03081*	P	J Jolly	Mangapps Railway Museum	BRB
D2090	Vin	*03090*	P		Gwili Railway	GRN
D2117		*8*	P		Lakeside & Haverthwaite Railway	RED
D2128		*03128, 03901*	P		Peak Rail	BLK
D2133			P		West Somerset Railway	GRN
D2138			P		Midland Railway - Butterley	GRN
D2139		*D2000*	P		Peak Rail	GRN
D2148			R		Ribble Steam Railway	GRN
D2152		*03152*	P		Swindon and Cricklade Railway	GRN

BR Diesel

D2178			P	Caerphilly Rly Society	Gwili Railway	GRN
D2182			P		Gloucestershire Warwickshire Steam Railway	GRN
D2184			P		Colne Valley Railway	BLK
D2192	TITAN		P		Dartmouth Steam Railway	BLK
D2199			P		Peak Rail	GRN
D2371		*03371, 92*	P		Dartmouth Steam Railway	BRB
D2381		*03381*	P		West Coast Railway Co. Carnforth	GRN

04

Class 04 Shunter



The British Rail Class 04 is a 0-6-0 diesel-mechanical shunting locomotive class, built between 1952 and 1962 and was the basis for the later Class 03 built in the British Railways workshops.

Gauge	1435mm
Builder	Drewry
Max Speed	27mph
Introduced	1948-62
Withdrawn	1971

BR Diesel

Length	7940mm
Width	2590mm
Height	3696mm
Weight	30.7-32.5t
Engine	Gardner 8L3
Transmission	Wilson-Drewry 5 speed gearbox
Power	152kW
TE	75kN
Wheelbase	2740mm
Wheel Arrangement	0-6-0

Number	Name			Note	Base	Livery
D2203		*11103*	P	Dales Diesel Group	Mangapps Railway Museum	GRN
D2205		*11106*	R		Peak Rail	
D2207		*11108*	R		North Yorkshire Moors Railway	UUU
D2229		*11135, 5*	S		Peak Rail	BLK
D2245	Derwent Valley Railway No.2	*11215*	P	on loan from the Battlefield Line	Derwent Valley Light Railway	GRN
D2246	Bluebell**	*11216*	P	Devon Diesel Society	South Devon Railway	GRN
D2271	GARDNER		P		South Devon Railway	BRB
D2272	Alfie	*2272*	P		Peak Rail	GRN
D2279		*11249*	P		East Anglian Railway Museum	BLK
D2280		*2*	S		Gloucestershire Warwickshire Steam Railway	BLK
D2284			S		Peak Rail	GRN
D2289	Lonato S.P.A.		P		Peak Rail	RED
D2298	Lord Wenlock**		P		Buckinghamshire Railway Centre	BRB
D2302			P	D2578LG	Moreton Park Railway - Hereford	GRN
D2310		*04110*	P	For Sale	Battlefield Line	BRB

BR Diesel

D2324	Judith**	*2324*	S	For Sale	Nemesis Rail, Burton-on-Trent	
D2325			P	J Jolly	Mangapps Railway Museum	GRN
D2334			P		Mid Norfolk Railway	GRN
D2337	Dorothy**		S		Peak Rail	GRN

05

Class 05 Shunter



The British Rail Class 05 is a class of 0-6-0 diesel-mechanical shunters built by Hunslet Engine Company from 1955 to 1961. They were used on the Eastern and Scottish Regions of British Railways. The first two batches were delivered as 11136-11143 (later renumbered D2550-D2557) and 11161-11176 (later renumbered D2558-D2573). Subsequent locomotives were delivered, new, as D2574-D2618.

Gauge	1435mm
Builder	Hunslet
Max Speed	18mph
Introduced	1955-61
Withdrawn	1985
Length	7720mm
Width	2510mm
Height	3350mm
Weight	31.4t
Engine	Gardner 8L3

BR Diesel

Transmission	Diesel Mechanical
Power	152kW
TE	64kN
Driving Wheel Dia	1016mm
Wheelbase	2740mm
Wheel Arrangement	0-6-0

Number	Name			Note	Base	Livery
D2554	Nuclear Fred	*11140, 05001, 97803*	P		Isle of Wight Steam Railway	GRN
D2578	Cider Queen**		P	D2578 Loco Group	Moreton Park Railway - Hereford	GRN
D2587			S		Peak Rail	GRN
D2595			P		Ribble Steam Railway	BRB

06

Class 06 Shunter



Phil Hayward

The British Rail Class 06 is a class of 0-4-0 diesel-mechanical shunters built by Andrew Barclay Sons and Company from 1958 to 1960 for use on the Scottish Region of British Railways. They were originally numbered D2410–D2444 and later given the TOPS numbers 06001–06010.

BR Diesel

Gauge	1435mm
Builder	Barclay
Max Speed	22.8mph
Introduced	1958-60
Length	7900mm
Width	2570mm
Height	3610mm
Weight	37.9t
Engine	Gardner 8L3
Transmission	Diesel Mechanical
Power	152kW
TE	88.1kN
Driving Wheel Dia	1092mm
Wheelbase	2130mm
Wheel Arrangement	0-4-0
Withdrawn	1981

Number			Note	Base	Livery
06003	*97804, D2420*	P	HST	Peak Rail	GRN

07

Class 07 Shunter



The British Rail Class 07 diesel locomotive is an off-centre cab 0-6-0 diesel-electric shunter type built by Ruston & Hornsby in 1962 for the Southern Region of British Railways. The 14

members of the class were primarily used at Southampton Docks and later also at Eastleigh Works.

Gauge	1435mm
Builder	Ruston and Hornsby
Max Speed	27.5mph
Introduced	1962
Length	8170mm
Width	2590mm
Height	3910mm
Weight	43.6t
Engine	Paxman 6RPHL
Transmission	Diesel Electric
Power	205kW
TE	125.6kN
Driving Wheel Dia	1067mm
Wheelbase	2630mm
Wheel Arrangement	0-6-0
Withdrawn	1977

Number	Name			Note	Base	Livery
07001		*D2985*	P		Peak Rail	BRB
07005	Langbaurgh**	*D2989*	S		Great Central Railway	GRN
07007	Bruce	*D2991*	A	Eastleigh (Works shunter)	Arlington Fleet Services - Eastleigh Works	BRB
07010		*D2994*	P		Peak Rail	BRB
07011		*D2995*	P		St. Leonards Railway Engineering	BRB
07012		*D2996*	P		Severn Valley Railway	BRB
07013		*D2997*	S		East Lancashire Railway	BRB

08

Class 08 Shunter Gronk



The British Rail Class 08 is a class of diesel-electric shunting locomotive built by British Railways (BR). As the standard BR general-purpose diesel shunter, the class became a familiar sight at major stations and freight yards. Since their introduction in 1952, however, the nature of rail traffic in Britain has changed considerably. Freight trains are now mostly fixed rakes of wagons, and passenger trains are mostly multiple units or have Driving Van Trailers, neither requiring the attention of a shunting locomotive. Consequently, a large proportion of the class has been withdrawn from mainline use and stored, scrapped, exported or sold to industrial or heritage railways.

As of 2020, around 100 locomotives remained working on industrial sidings and on the main British network. On heritage railways, they have become common, appearing on many of the preserved standard-gauge lines in Britain, with over 70 preserved, including the first one built

Gauge	1435mm
Builder	BR Crewe, Darlington, Derby, Doncaster, Horwich
Max Speed	15/20mph
Introduced	1952-62
Length	8920mm
Width	2590mm
Height	3880mm / 3600mm (08/9)
Weight	50.4t - 51.8t
Engine	English Electric 6KT
Transmission	Diesel Electric
Power	261kW

BR Diesel

TE	160kN
Driving Wheel Dia	1372mm
Wheelbase	3510mm
Wheel Arrangement	0-6-0

Number	Name		Note	Base	Livery
08016		*D3023, 13023*	P	Peak Rail	BRB
08032	Mendip**	*33, D3044, 13044*	P	Mid Hants Railway	BRB
08046	BRECHIN CITY	*D3059, 13059*	P	Caledonian Railway	BRB
08054		*D3067, 13067*	P	Embsay & Bolton Abbey Steam Railway	BRB
08108	Dover Castle**	*D3174, 13174, 3174*	S	Kent & East Sussex Railway	BLK
08114	Gotham	*D1380, 13180*	P	Epping & Ongar Railway	BRB
08123		*D3190, 13190*	P	Cholsey & Wallingford Railway	GRN
08133		*D3201, 13201*	P	Severn Valley Railway	BLK
08164	PRUDENCE	*D3232, 13232*	A	East Lancashire Railway	BRB
08168		*D3236, 13236*	P	Ecclesbourne Valley Railway	GRN
08202		*D3272, 13272*	P	Llangollen Railway	BRB
08238	Charlie	*D3308, 13308*	P	North Yorkshire Moors Railway	BRB
08266		*D3336, 13336*	P	Keighley & Worth Valley Railway	RFA
08288	Phoenix	*D3358*	P	Mid Hants Railway	BRB
08359		*D3429*	P	Kent & East Sussex Railway	BRB
08401		*D3516*	P	West Somerset Railway	BRB

08405		*D3520*		Temporarily at Heritage Rail Traction, Bolton	East Lancashire Railway	EWS
08411		*D3526*	S	Spares donor.	RSS Wishaw	BRB
08417		*D3532*	S		HNRC Worksop	NRL
08418		*D3533*			West Coast Railway Co. Carnforth	EWS
08423	LOCO 2	*H011, 14, D3538, 2*			Positive Traction, Chesterfield	RMS
08436	Beighton**	*D3551*	P		Swanage Railway	BLK
08443		*D3558*	P		Bo'ness & Kinneil Railway	GRN
08444		*D3559*	O		Bodmin & Wenford Railway	GRN
08472	Injan Ifor**	*D3587*	P		East Lancashire Railway	WAB
08473		*D3588*		To be converted to power unit transporter	Nemesis Rail, Burton-on-Trent	
08483	DUSTY Driver David Miller**, Bungle	*D3598*			Peak Rail	BLK
08485		*D3600*			West Coast Railway Co. Carnforth	BRB
08490		*D3605*	P		Strathspey Railway	GRN
08492		*D3607*	X			
08495	Noel Kirton OBE	*D3610*			Nemesis Rail, Burton-on-Trent	EWS
08502	Lybert Dickinson**	*D3657*	P		Battlefield Line	BLU
08503		*D3658*		Barry Island Railway for hire contract.	Barry Tourist Railway	

08528		*D3690*	P	Derwent Valley Light Railway	GRN
08536		*D3700*		Great Central Railway (Nottingham) Ltd	SBB
08539			P	Telford Steam Railway	
08556		*D3723*	P	North Yorkshire Moors Railway	GRN
08573	Bob	*D3740*		Alstom Ltd, Ilford	RMS
08590	RED LION	*D3757*	P	Midland Railway - Butterley	BRB
08622		*H028, 19, D3789*	A	Hanson Cement, Ketton	BLK
08631	Eagle C.U.R.C.**	*D3798*	P	Locomotive Services, Crewe	BRB
08633	The Sorter**	*D3800*	P	Nemesis Rail, Burton-on-Trent	GRN
08653	'Lydia' Star of the Humber, Vernon**	*D3820*	I	Phillips 66	GRY
08670		*D3837*	P	Telford Steam Railway	RSS
08676	DAVE 2	*D3843, 6*	S	Battlefield Line	EWS
08678	Old Artilla	*D3845*	S	West Coast Railway Co. Carnforth	WCR
08682	Lionheart	*D3849*		Battlefield Line	
08685		*D3852*	S	Battlefield Line	EWS
08694	Annesley TMD	*D3861, Pat Barr*	P	Great Central Railway (Nottingham) Ltd	EWS
08699		*D3866*	X		
08701	Tyne 100	*D3868*	S	Battlefield Line	RES

08704		*D3871*	P		East Somerset Railway	RIV
08706		*D3873*	P		Colne Valley Railway	EWS
08734		*D3902*	X			BRB
08750		*D3918*	X			
08757	EAGLE CURC**	*D3925*	P		Telford Steam Railway	RES
08767		*D3935*	P		North Norfolk Railway	GRN
08772	CANLODUNUM	*D3940*	P		North Norfolk Railway	GRN
08773		*D3941*	P		Embsay & Bolton Abbey Steam Railway	GRN
08784	Cherwell**	*D3952*	P		Great Central Railway (Nottingham) Ltd	EWS
08795		*D3963*	P	On loan from Llanelli & Mynydd Mawr Railway.	Chrysalis Rail, Landore	BLK
08798	LAURA**	*D3966, 798*	P		Battlefield Line	EWS
08804	RICHARD J. WENHAM**	*D3972*	S		Battlefield Line	EWS
08825		*D3993, 97808*	S		Chinnor & Princes Risborough Railway	NSE
08830		*D3998*	S		RSS Wishaw	BRB
08850		*D4018*	P		North Yorkshire Moors Railway	BRB
08868		*D4036*			Locomotive Services, Crewe	
08870	H024	*D4038*			Eastern Rail Services, Yarmouth	ICS
08871		*D4039, H074*	I		PD Ports, Teesport	RMS
08874	Catherine	*D4042*	R		Positive Traction, Chesterfield	SLF

BR Diesel

08885	Mars**	*H042, D4115*			Positive Traction, Chesterfield	GBU
08888	Postman's Pride	*D4118*	P	On loan from Kent & East Sussex Railway	Dean Forest Railway	104
08896		*D4126*	P		Severn Valley Railway	EWS
08905	Danny Daniels**	*D4135*	S		Battlefield Line	EWS
08911	Matey	*D4141*	P		Locomotion - NRM Shildon	
08915		*D4145*	P		Stephenson Railway Museum	BRB
08922		*D4152*	P		Spa Valley Railway	003
08936		*D4166*			Positive Traction, Chesterfield	RMS
08944		*D4174*	P		East Lancashire Railway	BLK
08993	Olive** Ashburnham**	*08592, D3759*	P		Keighley & Worth Valley Railway	EWS
08994	Spirit of Innovation**	*08462, D3577*	P		Gwendraeth Valley Railway	EWS
08995	KIDWELLY**	*08687, D3854*	S	Shillingstone Railway Project	RSS Wishaw	EWS
13029		*D3029, 08021*	P		Tyseley Locomotive Works	BLK
13101		*D3101*	P		Great Central Railway	GRN
13265		*D3265, 08195*	P		Llangollen Railway	BLK
13594		*08479, D3594*	A		East Lancashire Railway	BLK
604	Phantom	*D3771, 08604*	P		Didcot Railway Centre	GRN

BR Diesel

D3000		*13000*	P		HNRC Worksop	BLK
D3002		*13002*	P		Plym Valley Railway	BLK
D3014	SAMSON	*13014*	P		Dartmouth Steam Railway	BRB
D3018	Haversham	*08011, 13018*	P	Under overhaul	RSS Wishaw	GRN
D3019		*13019*	P		Cambrian Railway Trust, Llynclys	
D3022		*08015, 13022*	P		Severn Valley Railway	GRN
D3030	LION	*08022, 13030*	P		Cholsey & Wallingford Railway	BLK
D3074	UNICORN	*08060, 13074*	P		Cholsey & Wallingford Railway	BLK
D3079		*08064, 13079*	P		Locomotion - NRM Shildon	BLK
D3167		*13167, 08102*	P		Lincolnshire Wolds Railway	GRN
D3255		*13255*	P		TWS North Side Works	
D3261		*13261*	P		Swindon and Cricklade Railway	GRN
D3290		*08220, 13290*	P		Cambrian Heritage Railway, Oswestry	BRB
D3401	Eric Riley 1943-2024	*08331*	P		Midland Railway - Butterley	GRN
D3462		*08377*	P		Mid Hants Railway	GRN
D3586		*08471*	P		Severn Valley Railway	GRN
D3591		*08476*	P		Swanage Railway	GRN
D3830	St. Silas**, Hanson and Hall	*08663*	P	On hire from Avon Valley.	Hitachi, Newton Aycliffe	BRB

BR Diesel

D3905		*08737*	P	Carries original no. D3905.	Southall	GRN
D3937	Gladys	*08769*	P		Somerset & Dorset Railway	GRN
D3948	FRED**, Zippy	*08780*			Locomotive Services, Crewe	GRN
D4095		*08881*	P		Dean Forest Railway	GRN
D4137	Molly's Day**	*08907*	P		Great Central Railway	GRN
D4157		*08927*			Hopetown Darlington	GRN
D4167	Bluebell Mel	*08937*	S		Aggregate Industries, Merehead Stone Terminal	GRN
H3802		*D3802, 08635*	T	Converted to hydrogen power	Severn Valley Railway	VAN

09

Class 09 Shunter Gronk



The British Rail Class 09 is a class of 0-6-0 diesel locomotive designed primarily for shunting and short-distance freight trips along branch lines.

The 26 locos are nearly identical to the more numerous Class 08 shunting locomotives but have different gearing, giving a higher top speed of 27.5 mph (44 km/h) at the expense of a lower tractive effort. They were introduced from 1959 to 1962 and latterly operated in the Southern Region of British Railways, although some of the class were originally allocated to depots in the Midlands and North. Further locomotives were converted from Class 08 in 1992 and, following this and privatisation in 1997, the class has been distributed much further afield.

Gauge	1435mm
Builder	BR Darlington, Horwich
Max Speed	27.5mph
Introduced	1959-62 (1992-93)
Length	8920mm
Width	2590mm
Height	3870mm
Weight	49.8t
Engine	English Electric 6KT
Transmission	Diesel Electric
Power	261kW
TE	111.2kN
Driving Wheel Dia	1372mm
Wheelbase	3510mm
Wheel Arrangement	0-6-0

Number	Name			Note	Base	Livery
09001		*D3665*	P		Peak Rail	EWS
09004		*D3668, 97651*	P		Spa Valley Railway	BRB
09006		*D3670*	S		Dean Forest Railway	EWS
09010		*D3721*	P		South Devon Railway	GRN
09012	Pinky**, Dick Hardy	*D4100*	P		Severn Valley Railway	GRN
09014	Old Albion**	*D4102*	P		Churnet Valley Railway	BRD
09015	Rob**, Robbo**, SUSAN**, Tulyar**, County of Hereford**	*D4103*	P	Spare parts donor.	Dean Forest Railway	EWS
09017	Leo**	*D4105, 97806*	P		National Railway Museum	MAR

09024		*D4112*	A		East Lancashire Railway	MLB
09025		*D4113*	A		Lavender Line	CNX
09106		*08759, D3927, 6*	S	Converted 09/06/1993 from class 08.	Dean Forest Railway	HNR
09107		*08845, D4013*	P	Converted 23/07/1993 from class 08.	Severn Valley Railway	BRB
09201		*08421, D3536*	P	Converted 22/09/1992 from class 08.	Battlefield Line	BRD
D4106		*09018*	P		Bluebell Railway	GRN
D4107		*09019*	P		West Somerset Railway	MLB
D4114	Cedric Wares, William Pearson**	*09026*	P		Spa Valley Railway	GRN

10

Class 10 Shunter Gronk



The British Rail Class 10 diesel locomotive was a variant of the standard Class 08 diesel-electric shunter with a Lister Blackstone diesel engine and General Electric Company plc (GEC) traction motors. The locomotives were built at the BR Works in Darlington and Doncaster over the period 1955–1962, and were withdrawn between February 1967 and June 1972.

BR Diesel

Introduced	1955
Withdrawn	1972
Wheel Arrangement	0-6-0
Builder	BR Darlington
Power	261kW
Weight	48.6 t
TE	155.7 kN
Engine	Blackstone ER6T
Transmission	Diesel-Electric
Max Speed	27.5 mph
Length	29ft 3in
Width	8ft 6in
Height	12ft 8.5in
Driving Wheel Dia	4ft 6in
Wheelbase	11ft 6in

Number	Name			Base	Livery
D3452			S	Bodmin & Wenford Railway	BLK
D3489	Colonel Tomline		P	Helston Railway	BLK
D4067	MARGARET ETHEL - THOMAS ALFRED NAYLOR	*10119, 1802/B4, 1802*	P	Great Central Railway	NCB
D4092	CHRISTINE		P	Barrow Hill	GRN

11

Class 11 Shunter Gronk



The British Rail Class 11 was applied to a batch of diesel shunting locomotives built from April 1945 to December 1952, based on a similar earlier batch built by the London, Midland and Scottish Railway (LMS) between 1934 and 1936.

Builder	BR Derby
Weight	45.2tons
Max Speed	20MPH
Length	29ft 1.5in
Width	8ft 5in
Height	12ft 5.5in
Introduced	1945
Withdrawn	1972
Wheel Arrangement	0-6-0
Power	350HP
TE	34900lbf
Engine	English Electric 6KT
Transmission	Diesel Electric
Driving Wheel Dia	4ft 0.5in
Wheelbase	11ft 6in

Number			Note	Base	Livery
12049		X	Scrapped after fire, number 12082 now carries number 12049		
12052	*MP228*	R		Caledonian Railway	

12077		P		Midland Railway - Butterley	GRN
1208	*01564*			Widdrington Opencast Quarry	BLK
12082	*12049, 01553*	P	Carries number 12049 (original 12049 scrapped 2010) When re-registered for national network was allocated 01553	Mid Hants Railway	GRN
12082	*01553*	S	THIS IS A DUPLICATE OF https://www.spotlog.org/LocoList/Class/UKP/11 12082	Mid Hants Railway	???
12083	*01563*		THIS IS A DUPLICATE OF https://www.spotlog.org/LocoList/Class/UKP/11 12083	Battlefield Line	BLK
12083	*01563, M413, 201276*	Z	When re-registered for national network was allocated 01563. Engine being recovered	Great Central Railway	BLK
12088 [(1)]	*01564*	R	When re-registered for national network was allocated 01564	Aln Valley Railway	GRN
12093	*MP229*	A		Caledonian Railway	BLK
12099		P		Severn Valley Railway	GRN
12131		A		North Norfolk Railway	BLK
12139		A	Built for ICI Wilton. Never saw BR service	North Yorkshire Moors Railway	BLK

Notes
1: Name: Shirley

12

Class 12 Shunter Gronk



Chris Harley

The British Rail Class 12 is a diesel locomotive built primarily for shunting duties around London. This was the second batch of Southern Railway shunters based on the English Electric 6KT 350 hp (260 kW) diesel engine. The first experimental batch (BR numbers 15201–15203) were designed by Richard Maunsell of the SR in 1937 and were later classified D3/12. These locomotives were Oliver Bulleid's development of Maunsell's original design, but were significantly lighter. They featured Bulleid's distinctive BFB wheels, and incorporated a number of details from the diesel-electric shunters produced by the London, Midland and Scottish Railway 1936–39.[2] They were built at the BR Ashford Works over the period 1949–1952 and numbered 15211–15236. They later became Class 12, but no locomotives survived long enough to acquire Class 12 TOPS numbers.

Gauge	1435mm
Transmission	Electric
Length	29ft 5.5in
Width	9ft
Height	12ft 8.5in
Introduced	1949
Withdrawn	1971
Wheel Arrangement	0-6-0
Builder	BR Ashford
Power	350HP
Weight	48.8t
TE	24600lbf

BR Diesel

Engine	English Electric 6KT
Max Speed	27.5mph
Driving Wheel Dia	4ft 6in
Wheelbase	11ft 6in

Number		Base	Livery
15224	S	Spa Valley Railway	GRN

14

Class 14 Teddy Bear



Ex BR shunter & light trip working loco. All sold into industrial use, some exported to Europe. All surviving examples now preserved.

Gauge	1435mm
Builder	BR Swindon
Max Speed	40mph
Introduced	1964-65
Length	10541mm
Weight	49.3t
Engine	Paxman Ventura 6YJXL
Transmission	Voith L217U Hydraulic
Power	485kW
TE	137.5kN
Driving Wheel Dia	1219mm
Wheel Arrangement	0-6-0
Width	2629mm
Height	3962mm

BR Diesel

Wheelbase	4724mm

Number	Name			Note	Base	Livery
38		*D9513, D1/9513*	P		Wensleydale Railway	NCB
D9500			P		Port Elphinstone, Inverurie	GRN
D9502	Kerys		R		East Lancashire Railway	GRN
D9504		*506, 01566, 89104*	P	When re-registered for national network was allocated 01566	Kent & East Sussex Railway	GRN
D9516			P		Didcot Railway Centre	GRN
D9518		*7*	P		West Somerset Railway	BRB
D9521		*3, 14021*	P	D9521 Loco Group	Dean Forest Railway	GRN
D9523			P		Wensleydale Railway	MAR
D9524		*14901*	P		Peak Rail	BRB
D9525	Ian's		P		Llangollen Railway	GRN
D9526			P	D&EPG	West Somerset Railway	GRN
D9529		*14029, 01577*	P	When re-registered for national network was allocated 01577	Nene Valley Railway	BRB
D9531	ERNEST		P	East Lancs Diesel Group	East Lancashire Railway	GRN
D9537	Eric		O	East Lancs Diesel Group	Ecclesbourne Valley Railway	
D9539			P		Ribble Steam Railway	GRN

BR Diesel

D9551	*89151*	P	Privately Owned	Severn Valley Railway	GRN
D9553	*54*	S	Privately Owned	Caledonian Railway	GRN
D9555		P		Midland Railway - Butterley	GRN
D957	*45, D9520*	P		Keighley & Worth Valley Railway	GRN

15

Class 15

The British Rail Class 15 diesel locomotives, also known as the BTH Type 1, were designed by British Thomson-Houston, and built by the Yorkshire Engine Company and the Clayton Equipment Company, between 1957 and 1961. They were numbered D8200-D8243.

The Class 15 was ordered by British Railways (BR) shortly after the announcement of the 1955 Modernisation Plan, which led to the procurement of a diverse number of diesel locomotives under the 'pilot scheme'. Shortly following the completion of the first locomotive during 1957, its performance was sufficient to justify multiple follow-on orders, leading to a total fleet of 44 locomotives. In service, the type was relatively unreliable, much of this been traceable to its Paxman 16YHXL power unit. Its fortunes were further impacted by inconsistent policy making.

During the late 1960s, it was decided to withdraw the Class 15 in favour of the more numerous and successful British Rail Class 20 locomotive, both types having been developed to satisfy the same Type 1 specification. Their final use was as departmental vehicles, coming to an end in the late 1980s. One example has survived into preservation.

Builder	British Thomson-Houston
Power	800HP
Weight	69 tons
Engine	Paxman 16YHXL
Max Speed	60MPH
Introduced	1957
Transmission	Electric
Length	42ft
Width	9ft 2in
Height	12ft 6in
Withdrawn	1989
Wheel Arrangement	Bo-Bo

BR Diesel

TE	37500lbf
Driving Wheel Dia	3ft 3.5in
Wheelbase	31ft

Number			Note	Base	Livery
D8233	*ADB968001*	R	Class 15 Preservation Society	East Lancashire Railway	GRN

17

Class 17



Neil Thaler

The British Rail Class 17 (also known as the Clayton Type 1) was a class of 117 Bo-Bo diesel-electric locomotives built 1962–1965 by Clayton Equipment Company and their sub-contractor Beyer, Peacock & Co., on behalf of British Railways (BR).

During the 1950s and 1960s BR procured a wide range of Type 1 diesel locomotives, many of them under the Pilot Scheme. However, several officials felt that the single-cabbed arrangement used by the majority of Type 1s presented drivers with visibility difficulties in the 'less convenient' direction. BR therefore approached several manufacturers to seek a new locomotive that had a centre cab and low bonnets to maximise visibility. Clayton were selected to produce their proposed locomotive as the Class 17. Its low engine covers required the use of a pair of Paxman 6ZHXL six-cylinder horizontal engines, which had been intended for powering railcars; it was a somewhat unorthodox arrangement for the era.

Production of the Class 17 was undertaken between 1962 and 1965, with the locomotives being assigned to the north of Britain and the Scottish Region. Early on it was determined that the locomotive was not suited to heavy freight trains, and they quickly acquired a

reputation for unreliability largely due to the engines, which continued to deliver poor performance even after extensive modifications. The Class 17 proved to be one of the least successful of the Type 1s. Withdrawals took place from the late 1960s to 1971, some locomotives having a working life of less than five years. Several were sold to industrial users; only one example has been preserved.

Engine	Paxman 6ZHXL x 2
Transmission	DC Generator and Traction Motors
Power	450bhp x 2
Weight	69 tons
Builder	Clayton Locomotives of Tutbury
Length	50ft 7in
Width	8ft 9.5in
Height	12ft 8in
Introduced	1962
Withdrawn	1971
Wheel Arrangement	Bo-Bo
TE	40000lbf
Max Speed	60mph
Driving Wheel Dia	3ft 3.5in
Wheelbase	36ft 6in

Number		Note	Base	Livery
D8568	A	DTG	Severn Valley Railway	BRB

20

Class 20 Chopper



The British Rail Class 20, otherwise known as an English Electric Type 1, is a class of diesel-electric locomotive. In total, 228 locomotives in the class were built by English Electric between 1957 and 1968, the large number being in part because of the failure of other early designs in the same power range to provide reliable locomotives.

The locomotives were originally numbered D8000–D8199 and D8300–D8327. They are known by railway enthusiasts as "Choppers"

Gauge	1435mm
Builder	English Electric
Max Speed	75mph
Introduced	1957-68
Length	14262mm
Width	2670mm
Height	3860mm
Weight	73.2t
Engine	English Electric 8SVT Mk2
Transmission	Diesel Electric
Power	746kW
TE	186.8kN
Driving Wheel Dia	1092mm
Wheelbase	9910mm
Wheel Arrangement	Bo-Bo

Number	Name	Note	Base	Livery

20007		*D8007*	P		Midland Railway - Butterley	GRN
20016		*D8016*	P		Caledonian Railway	BRB
20020		*D8020*	P		Bo'ness & Kinneil Railway	SBB
20035		*2001, D8035*	X			
20048		*D8048*	P		Severn Valley Railway	SBB
20057		*D8057*	P		Churnet Valley Railway	GRN
20059		*D8059*	P		Mid Hants Railway	GRN
20063		*D8063, 2002*	S	Former CFD 2002	Battlefield Line	CFD
20066		*D8066, 82*	S		Swanage Railway	BRB
20069		*D8069*	P		East Lancashire Railway	BRB
20081		*D8081*	P		Caledonian Railway	SBB
20087	Hercules**	*D8087, 89287*	P		Kent & East Sussex Railway	SBB
20088		*D8088, 2017, 37*	P		Caledonian Railway	RFG
20110		*89110, D8110*	P		Embsay & Bolton Abbey Steam Railway	GRN
20118	Saltburn-by-the-Sea, RIVER DON**	*D8118*	P		Locomotive Services, Crewe	RFG
20121		*D8121*	X			
20132	Barrow Hill Depot, Atlas**	*D8132*	P		Locomotive Services, Crewe	RFG
20137	Murray B. Hofmeyr**	*D8137*	P		Gloucestershire Warwickshire Steam Railway	GRN
20154		*D8154*	P		Great Central Railway (Nottingham) Ltd	SBB

20166	RIVER FOWEY**	*89166, D8166*	P		Caledonian Railway	HNR
20169		*D8169*	P		Embsay & Bolton Abbey Steam Railway	GRN
20189		*D8189*	P		Midland Railway - Butterley	SBB
20205		*D8305*	P		Midland Railway - Butterley	SBB
20214		*D8314*	P		Lakeside & Haverthwaite Railway	GRN
20227	SIR JOHN BETJEMAN**, SHERLOCK HOLMES	*89127, D8327*	P		Epping & Ongar Railway	LUL
20228		*2004, D8128*	P	Former CFD 2004	Gloucestershire Warwickshire Steam Railway	BRB
20302		*2002, 20084, D8084*	S	Trip Cock fitted. Swietelsky branding	HNRC Worksop	HNR
20305	Gresty Bridge	*2020, 20095, D8095*	S	Trip Cock fitted.	HNRC Worksop	DRC
20309	Sir William Cooke**	*20075, D8075*	A	(for sale)	Hope Cement	DRC
D8000		*89100, 20050*	P		National Railway Museum	GRN
D8001	Marianne**, Vulcan Pioneer**	*20001, 89101, 8001, 2011, 11, ADB968029*	P		Epping & Ongar Railway	GRN
D8031		*20031*	P		Keighley & Worth Valley Railway	GRN
D8098		*20098*	S	Type 1 Loco Company	Great Central Railway	GRN
D8107	Jocelyn Feilding 1940-2020	*20107*	P		Locomotive Services, Crewe	GRN
D8188	RIVER YEO**	*89188, 20188*	P		Mid Hants Railway	GRN

23

Class 23 Baby Deltic



D5910 at the Greatest Gathering

Dan Cardwell

A Type 2 loco, built in the late-1950s by The English Electric Co. Ltd. at Vulcan Foundry, Newton-le-Willows. They were fitted with one 9-cylinder Napier Deltic engine rated at 1100 bhp.

The were called 'Baby' Deltics because of the engine being smaller than the 18-cylinder engines fitted to their Type 5 brethren (later Class 55), not because they bore any resemblance to them.

In September 2010 The Baby Deltic Project announced its intention to create a replica of an EECo Type 2 (Class 23) 'Baby' Deltic, using its Class 37 test-bed loco as the starting point.

In brief, the Project intends to shorten the nose and body length of the 'donor' loco, restyle the body and mount the loco on Class 20 bogies so as to reproduce, so far as reasonably practicable, the appearance of a Class 23. It is not as simple as it seems, the apparantly simple act of shortening the nose ends involves more work than the shortening of the body section for example. To mount Class 20 bogies onto a Class 37 underframe requires the modification of the entire centre casting, pivot members and side-bearers as well as all the bracing and load concentration points.

Components for the rebuild came from 37372, 37159, D6859

Length	16m
Width	2.71m
Height	3.86m
Introduced	1959 (original class)
Withdrawn	1971
Wheel Arrangement	BoBo

BR Diesel

Builder	English Electric
Power	1100HP
Weight	75.2t (original class)
TE	209.1kN
Engine	Napier T9-29 Deltic
Transmission	Diesel Electric
Max Speed	75mph
Driving Wheel Dia	1.092m
Wheelbase	12.34m

Number		Base	Depot
D5910	R	Barrow Hill	BH

24

Class 24 Rat



The British Railways Class 24 mixed traffic diesel locomotives, also known as the Sulzer Type 2, were built from 1958 to 1961. One hundred and fifty-one were built at Derby, Crewe and Darlington, the first twenty of them as part of the British Railways 1955 Modernisation Plan. This class was used as the basis for the development of the Class 25 locomotives.

The final survivor, no. 24081, was withdrawn from Crewe depot in 1980, now all examples preserved

Gauge	1435mm
Builder	BR Derby, Darlington, Crewe
Max Speed	75mph
Introduced	1958-61
Length	15390mm

BR Diesel

Width	2690mm
Height	3860mm
Weight	79t / 73t
Engine	Sulzer 6LDA28
Transmission	Diesel Electric
Power	865kW
TE	186.8kN
Driving Wheel Dia	1143mm
Wheelbase	11130mm
Wheel Arrangement	Bo-Bo
Withdrawn	1987

Number	Name			Base	Livery
5081		*D24081, 24081*	P	Gloucestershire Warwickshire Steam Railway	BRB
D5032	Helen Turner	*24032*	P	North Yorkshire Moors Railway	GRN
D5054	Phil Southern**	*89254, 968008, 24054*	P	East Lancashire Railway	GRN
D5061	Experiment**	*89261, 97201, 968007, 24061*	P	North Yorkshire Moors Railway	GRN

25

Class 25 Rat



The British Rail Class 25, also known as the Sulzer Type 2, is a class of 327 mixed traffic diesel locomotives built between 1961 and 1967 for British Rail. They were numbered in two series, D5151-D5299 and D7500-D7677. All remaining examples in preservation

Gauge	1435mm
Builder	BR Crewe, Darlington, Derby, Beyer Peacock
Max Speed	90mph
Introduced	1961-67
Withdrawn	1987
Length	15392mm
Width	2769mm
Height	3861mm
Weight	72.1t-77t
Engine	Sulzer 6LDA28-B
Transmission	Diesel Electric
Power	932kW
TE	170kN
Driving Wheel Dia	1143mm
Wheelbase	11125mm
Wheel Arrangement	Bo-Bo

Number	Name			Base	Livery
25057		*D5207*	S	HNRC Worksop	BRB
25059		*D5209*	O	Barrow Hill	BRB
25072		*D5222*	P	Caledonian Railway	BRB
25083		*D5233*	P	Caledonian Railway	BRB

BR Diesel

25185	Mercury**	*D7535*	A	South Devon Railway	BRB
25191	The Diana**	*D7541*	P	South Devon Railway	GRN
25235		*D7585*	P	Bo'ness & Kinneil Railway	BRB
25244		*D7594*	P	Kent & East Sussex Railway	GRN
25262		*89262, D7612, 25901*	P	South Devon Railway	BRB
25265	Castell Harlech/Harlech Castle	*D7615*	P	Nemesis Rail, Burton-on-Trent	BRB
25313		*D7663*	P	HNRC Worksop	BRB
25322	Tamworth Castle	*968027, 25912, D7672*	P	Churnet Valley Railway	
D5185 [(1)]	Castel Dinas Bran**	*25035*	P	Great Central Railway	GRN
D5217		*25067*	P	Nemesis Rail, Burton-on-Trent	GRN
D7523	John F Kennedy**	*89223, 25173*	O	Battlefield Line	GRN
D7628	Sybilia	*25278*	P	North Yorkshire Moors Railway	GRN
D7629		*25279*	P	East Lancashire Railway	BRB
D7633		*89233, 25283, 25904*	P	Battlefield Line	GRN
D7659		*89259, 25309, 25909*	P	HNRC Barrow Hill	GRN
D7671		*25321*	P	Midland Railway - Butterley	GRN

Notes
1: WDN: 15/03/1987

26

Class 26 McRat



John J Cordrey

The British Rail Class 26 diesel locomotives, also known as the BRCW Type 2, were built by the Birmingham Railway Carriage and Wagon Company (BRCW) at Smethwick in 1958-59. Forty seven examples were built, and the last were withdrawn from service in 1994. Like their higher-powered sisters, the BRCW Classes 27 and 33, they had all-steel bodies and cab ends with fibreglass cab roofs. They were numbered D5300-D5346. Now all remaining examples preserved or stored

Gauge	1435mm
Builder	BRCW
Max Speed	80mph
Introduced	1958-59
Withdrawn	1994
Length	15470mm
Width	2690mm
Height	3860mm
Weight	78.7t / 75.2t
Engine	Sulzer 6LDA-28
Transmission	Diesel Electric
Power	865kW
TE	187kN
Driving Wheel Dia	1092mm
Wheelbase	11890mm
Wheel Arrangement	Bo-Bo

BR Diesel

Number			Base	Livery
26004	*D5304*	S	Nemesis Rail, Burton-on-Trent	BRT
26007 [1]	*D5300*	A	Barrow Hill	BRT
26011	*D5311*	S	Nemesis Rail, Burton-on-Trent	BRB
26024	*D5324*	P	Bo'ness & Kinneil Railway	BRB
26035	*D5335*	P	Port Elphinstone, Inverurie	BRB
26038 [2]	*D5338*	P	Bo'ness & Kinneil Railway	BRB
26040	*D5340*	P	Private Site (Carlisle)	BRB
5310	*26010, D26010*	P	Gloucestershire Warwickshire Steam Railway	GRN
D5301	*26001*	P	Caledonian Railway	GRN
D5302	*26002*	P	Port Elphinstone, Inverurie	GRN
D5314	*26014*	P	Caledonian Railway	GRN
D5325	*26025*	P	Port Elphinstone, Inverurie	GRN
D5343	*26043*	P	Gloucestershire Warwickshire Steam Railway	BRB

Notes
1: First-built locomotive. One of the final locomotives in traffic
2: Name: Tom Clift 1954-2012

27

Class 27 McRat



British Rail's Class 27 comprised 69 diesel locomotives built by the Birmingham Railway Carriage and Wagon Company (BRCW) during 1961 and 1962. They were a development of the earlier Class 26; both were originally classified as the BRCW Type 2. The Class 27s were numbered D5347-D5415. All surviving examples preserved

Gauge	1435mm

BR Diesel

Builder	BRCW
Max Speed	90mph
Introduced	1961-62
Withdrawn	1987
Length	15470mm
Width	2690mm
Height	3860mm
Weight	81.2t
Engine	Sulzer 6LDA28-B
Transmission	Diesel Electric
Power	932kW
TE	187kN
Driving Wheel Dia	1092mm
Wheelbase	11890mm
Wheel Arrangement	Bo-Bo

Number			Note	Base	Livery
27001	*89247, D5347*	P		Caledonian Railway	BRB
27005	*D5351*	P		Bo'ness & Kinneil Railway	BRB
27056	*27112, D5401, 5401*	P		Great Central Railway	BRB
27059	*89210, 27205, 27123, D5410*	P	Tyesley Museum (at Leicester)	UKRL Leicester	UUU
27066	*27212, 27103, D5386*	P		Barrow Hill	BRB
D5353	*27007*	R		Caledonian Railway	GRN
D5370	*968028, ADB968028, 27024*	P		Caledonian Railway	GRN
D5394	*27106, 27050*	P		Strathspey Railway	GRN

28

Class 28 Metrovick



Phil Hayward

The British Rail Class 28 (Metro-Vick Type 2) diesel-electric locomotives, known variously as 'Metrovicks', 'Crossleys' or 'Co-Bos', were built under the Pilot Scheme for diesel locomotives as part of the British Railways 1955 Modernisation Plan.

These Crossley-engined locomotives were one of two designs built under the Pilot Scheme to use two-stroke diesel engines, the other being the Class 23 'Baby Deltic' locomotives.

The locomotives had a Co-Bo wheel arrangement (a 6-wheel bogie at one end, a 4-wheel bogie at the other) – unique in British Railways practice and uncommon in other countries, although Japan also used some C-B diesel hydraulics. The maximum tractive effort of 50,000 lbf (220 kN) was unusually high for a Type 2 locomotive but, as there were five (not four) driving axles, the risk of wheelslip was minimal.

Introduced	1958
Withdrawn	1969
Wheel Arrangement	Co-Bo
Builder	Metropolitan-Vickers
Power	1200HP
Weight	97 tons
Engine	Crossley HST V8
Max Speed	75
Transmission	Electric
Length	17.26m

BR Diesel

Width	2.59m
Height	3.7m
TE	50000lbf
Driving Wheel Dia	1.003m
Wheelbase	13.03m

Number			Base	Livery
D5705	*TDB968006, S15705*	R	East Lancashire Railway	GRN

31

Class 31



The British Rail Class 31 diesel locomotives, also known as the Brush Type 2 and previously as Class 30, were built by Brush Traction from 1957-62. They were numbered in two series, D5500-D5699 and D5800-D5862. Construction of the first locomotive was completed in the final week of September 1957, and the handing-over took place on 31 October. The first Class 31 entered service in November 1957, after the launch of the Class 20 locomotive and was one of the Pilot Scheme locomotives ordered by British Railways to replace steam traction.

Gauge	1435mm
Builder	Brush Traction
Max Speed	80/90mph
Introduced	1957-62
Length	17300mm
Width	2670mm

BR Diesel

Height	3840mm
Weight	108.4-115t
Engine	English Electric 12SVT
Transmission	Diesel Electric
Power	1100kW
Driving Wheel Dia	1092mm
Wheelbase	13060mm
Wheel Arrangement	A1A-A1A
Withdrawn	2017
TE	35900lbf

Number	Name			Note	Base	Livery
31018		*D5500*	P	Converted from class 30: 15/03/1969.	Locomotion - NRM Shildon	SBB
31106	Spalding Town, The Blackcountryman**	*D5524*	X	Converted from class 30: 06/1967		
31108		*D5526*	P	Converted from class 30: 25/05/1968.	Midland Railway - Butterley	RFA
31119		*D5537*	P	Converted from class 30: 07/1967.	Embsay & Bolton Abbey Steam Railway	BRB
31128	CHARYBDIS**	*D5546*	O	Converted from class 30: 08/1965.	Nemesis Rail, Burton-on-Trent	SBB
31130	Calder Hall Power Station	*D5548*	P	Converted from class 30: 02/1967. Name not currently carried	Avon Valley Railway	RFA
31190	GRYPHON**	*D5613*	P	Converted from class 30: 01/1966.	Nemesis Rail, Burton-on-Trent	GOL
31206		*D5630*	P	Converted from class 30: 01/1966.	Rushden Transport Museum	CIV
31210		*D5634*	P	Converted from class 30: 04/1968.	Nemesis Rail, Burton-on-Trent	RFA
31233		*D5660*	P	Converted from class 30: 02/1967.	Mangapps Railway Museum	NRL

31235		*D5662*	P	Converted from class 30: 30/11/1966.	Nemesis Rail, Burton-on-Trent	BRB
31255		*D5683*	O	Converted from class 30: 12/03/1966.	Nemesis Rail, Burton-on-Trent	EWS
31270	Athena	*D5800*	P	Converted from class 30: 07/1966.	Didcot Railway Centre	RRR
31271	Stratford 1840 - 2001**	*D5801*	P	On loan from Midland Railway. Converted from class 30: 03/1967.	Llangollen Railway	BRT
31285		*D5817*	S	Converted from class 30: 06/1967.	Weardale Railway	NRL
31289	PHEONIX**	*D5821*	P	On long term loan from the Rushden Transport Museum. Converted from class 30: 08/1967.	Northampton & Lamport Railway	BRB
31417		*D5856*	X	Converted from class 30: 01/1966.		
31418	Boadicea**	*D5522*	P	Converted from class 30: 18/11/1967.	Midland Railway - Butterley	BRB
31430	Sister Dora**	*31530, 31265, D5695*	P	Converted from class 30: 23/11/1968.	Spa Valley Railway	BRB
31438		*31538, 31139, D5557*	P	Converted from class 30: 03/1965.	Epping & Ongar Railway	BRB
31452	MINOTAUR**	*31552, 31279, D5809*	P	Converted from class 30: 07/1967.	Eastern Rail Services, Yarmouth	ICM
31454	Immingham**, The Heart of Wessex**	*31554, 31228, D5654*	P	Converted from class 30: 18/11/1967.	Nemesis Rail, Burton-on-Trent	ICS
31459	CERBERUS	*31256, D5684*	P	Converted from class 30: 04/1965.	Weardale Railway	BRB

31465		*31565, 31213, D5637*	S	Converted from class 30: 08/1967.	Weardale Railway	NRL
31466		*31115, D5533*	P	Converted from class 30: 04/1968.	North Yorkshire Moors Railway	EWS
31514		*D5814, 31414*	P	Converted from class 30: 06/1967.	Midland Railway - Butterley	CIV
31601	Bletchley Park 'Station X'**, The Mayor of Casterbridge**, Gauge "0" Guild 1956-2006**, Devon Diesel Society	*31186, D5609*	P	Northamptonshire Class 31 Group. Converted from class 30: 05/1966.	Northampton & Lamport Railway	DCR
5518		*D5518, 31101*	P	Converted from class 30: 08/1967.	Avon Valley Railway	BRB
5580		*D5580, 31162*	P	Converted from class 30: 11/1967.	Midland Railway - Butterley	SBB
97205		*D5581, 31163*	P	Converted from class 30: 01/1966.	Nemesis Rail, Burton-on-Trent	
D5523	Bescot TMD**, Radio Caroline	*31105*	P	Converted from class 30: 02/1967.	Mangapps Railway Museum	BRB
D5600	Newton Heath TMD	*31179, 31435*	P	Dales Diesel Group. Converted from class 30: 03/1967.	Embsay & Bolton Abbey Steam Railway	GRN
D5627	Steve Organ GM	*31203*	P	Converted from class 30: 07/1966.	HNRC Worksop	GRN
D5631		*31207*	O	Converted from class 30: 10/1966.	North Norfolk Railway	GRN
D5830		*31563, 31297, 31463*	P	Converted from class 30: 10/1967.	Great Central Railway (Nottingham) Ltd	GOL
D5862	Phillips-Imperial**	*31327*	P	Converted from class 30: 03/1966.	Strathspey Railway	GRN

33

Class 33 Crompton



The British Rail Class 33, also known as the BRCW Type 3 or Crompton, is a class of Bo-Bo diesel-electric locomotives, ordered in 1957 and built for the Southern Region of British Railways between 1960 and 1962.

They were produced as a more powerful Type 3 (1,550 bhp) development of the 1,160 bhp Type 2 Class 26. This was achieved, quite simply, by removing the steam heating boiler and fitting a larger 8-cylinder version of the previous 6-cylinder engine. This was possible because of the traffic requirements of the Southern Region: locomotive-hauled passenger traffic depended on seasonal tourist traffic and was heavier in the summer, when carriage heating was not needed. In the winter, their expected use was to be for freight. Thus, they became the most powerful BR Bo-Bo diesel locomotive

Gauge	1435mm
Builder	BRCW
Max Speed	85mph
Introduced	1960-62
Length	15470mm
Width	2690mm
Height	3860mm
Weight	74.2t/78.2t
Engine	Sulzer 8LDA28
Transmission	Diesel Electric
Power	1156kW
TE	200kN
Driving Wheel Dia	1092mm
Wheelbase	11890mm

Wheel Arrangement	Bo-Bo

Number	Name			Note	Base	Livery
33002	Sea King	*D6501*	P		South Devon Railway	CIV
33018		*968030, TDB968030, D6530*	P	undergoing restoration	Sonic Rail Services, Burnham-on-Crouch	BRB
33019	Griffon	*D6534*	D		Barrow Hill	CIV
33021	Eastleigh, Captain Charles**	*D6539*	P		Churnet Valley Railway	
33025	Sultan**, Glen Falloch	*D6543*	P		Southall	WCR
33035	Spitfire**	*D6553*	P		Wensleydale Railway	BRB
33046	Merlin	*D6564, DEL158*	X			
33053	Mid Hants Railway	*D6571*	P		Swanage Railway	SBB
33063	R J Mitchell	*D6583*	P		Spa Valley Railway	MLG
33065	Sealion**	*D6585*	P		Spa Valley Railway	BRB
33102	Sophie	*D6513*	P		Churnet Valley Railway	BRB
33103	SWORDFISH	*D6514*	P		Ecclesbourne Valley Railway	BRD
33108	VAMPIRE**	*D6521*	P		Severn Valley Railway	CIV
33109	Captain Bill Smith RNR	*D6525*	P		East Lancashire Railway	BRD
33110		*D6527*	A		Sonic Rail Services, Burnham-on-Crouch	BRD
33111		*D6528*	P		Barrow Hill	BRB
33117		*D6536*	P		East Lancashire Railway	SBB
33201		*D6586*	P		Battlefield Line	SBB
33202	The Burma Star**, Meteor**, Dennis G Robinson	*D6587*	P	On loan	Mid Norfolk Railway	BRB

BR Diesel

D6508	Eastleigh**	*33008*	P		Battlefield Line	GRN
D6515	Lt Jenny Lewis RN	*33012*	R	Back from Arlington	Swanage Railway	GRN
D6535	Hertfordshire Rail Tours	*33116*	P		Great Central Railway	BRB
D6566		*33048*	P		West Somerset Railway	GRN
D6570	Ashford	*33052*	P		Bluebell Railway	GRN
D6575	Seagull**	*33057*	P		West Somerset Railway	GRN
D6593		*33208*	P		HNRC Worksop	GRN

35

Class 35 Hymek



The British Rail Class 35 is a class of mixed-traffic B-B diesel locomotive with hydraulic transmission. Because of their Mekydro-design hydraulic transmission units, the locomotives became known as the Hymeks. They were numbered D7000-D7100.

The class was developed for the Western Region of British Railways, which had opted for lightweight locomotives with hydraulic transmission, when allocated funds under the British Railways Modernisation Plan of 1955. 101 of the class were built between 1961 and 1964, when it became apparent that there was a requirement for a medium-power diesel-hydraulic design for both secondary passenger work and freight duties.

They were allocated to Bristol Bath Road, Cardiff Canton, and Old Oak Common. None of the class was named. Withdrawal from service began in 1971, and was completed by 1975.

Their early withdrawal was caused, primarily, by BR classifying the hydraulic transmission as non-standard. The four surviving locomotives were all preserved.

Gauge	1435mm
Transmission	Diesel Hydraulic
Wheel Arrangement	B-B
Builder	Beyer Peacock Ltd.
Max Speed	90mph
Introduced	1961-64
Withdrawn	1971-75
Length	15761mm
Width	2690mm
Height	3910mm
Weight	76.2t
Engine	Maybach MD870
Power	1270kW
TE	207.3kN
Driving Wheel Dia	1143mm
Wheelbase	10970mm

Number	Name			Note	Base	Livery
D7017	Williton**	*89317, 35017*	P		West Somerset Railway	GRN
D7018			P		West Somerset Railway	GRN
D7029			P	Under Restoration	Severn Valley Railway	BRB
D7076		*89376*	P		East Lancashire Railway	BRB

37

Class 37 Tractor



The British Rail Class 37 is a diesel-electric locomotive. Also known as the English Electric Type 3, the class was ordered as part of the British Rail modernisation plan. They were numbered in two series, D6600–D6608 and D6700–D6999.

The Class 37 became a familiar sight on many parts of the British Rail network, in particular forming the main motive power for InterCity services in East Anglia and within Scotland. They also performed well on secondary and inter-regional services for many years. The Class 37s are known to some railway enthusiasts as "tractors", a nickname given due to the similarities between the sound of the Class 37's engine and that of a tractor.

Builder	English Electric
Max Speed	90mph
Introduced	1960
Engine	English Electric 12CSVT
Transmission	Diesel-Electric
Power	1305kW
TE	247kN
Wheel Arrangement	Co-Co
Length	18.75m
Width	2.71m
Height	3.89m
Weight	107t
Driving Wheel Dia	1.143m
Wheelbase	15.44m

Number	Name			Base	Livery
37003	Dereham Neatherd High School 1912-2012**, Tiger Moth**	*D6703*	P	Mid Norfolk Railway	SBB
37023	Stratford TMD**	*D6723*	P	Pontypool & Blaenavon Railway	BLL
37025	Inverness TMD**	*D6725*	S	Bo'ness & Kinneil Railway	BLL
37042		*D6742*	P	Weardale Railway	EWS
37057	Viking**, Barbara Arbon	*D6757*	A		COL
37075		*D6775*	P	Keighley & Worth Valley Railway	BRT
37097	Old Fettercairn	*D6797*	P	Caledonian Railway	BRB
37109		*D6809*	P	East Lancashire Railway	BRT
37142		*D6842*	P	Bodmin & Wenford Railway	BRB
37146		*D6846*	X		
37188	Jimmy Shand**	*D6888*	X		
37198	Chief Engineer	*D6898*	P	Hopetown Darlington	GRN
37207 [1]	William Cookworthy	*D6907*	T	Great Central Railway	SBB
37215		*D6915*	P	Gloucestershire Warwickshire Steam Railway	BRB
37216	Great Eastern	*D6916*	P	Pontypool & Blaenavon Railway	UUU
37227		*D6927*	P	Dean Forest Railway	BRT
37240		*6940, D6940*	P	Tyseley Locomotive Works	TGG
37250		*D6950*	P	Wensleydale Railway	EWS
37254	Driver Robin Prince M.B.E.	*D6954*	A		COL
37255		*D6955*	P	Nemesis Rail, Burton-on-Trent	CIV
37261	Loch Arkaig**, Caithness**	*D6961*	P	Bo'ness & Kinneil Railway	DRC
37263		*D6963*	P	Telford Steam Railway	BRD
37264		*D6964*	P	North Yorkshire Moors Railway	BRB

37294		*D6994*	P	Embsay & Bolton Abbey Steam Railway	BRB
37308	Isle of Mull**	*37274, D6608*	P	Dean Forest Railway	UUU
37309	Loch Laidon	*D6914, 37214*	P	Bo'ness & Kinneil Railway	BRB
37310	British Steel Ravenscraig	*D6852, 37152*	P	Peak Rail	BLL
37314	Dalzell	*37190, D6890*	P	One:One Collection	BLL
37324	Clydebridge**	*37099, D6799*	A	Boden Engineering, Colwick	COL
37325	Lanarkshire Steel**	*D6808, 37108*	P	Great Central Railway (Nottingham) Ltd	GRN
37340	TYPHOON**	*37009, D6709*	P	Great Central Railway (Nottingham) Ltd	BRB
37372 [(2)]		*37159, D6859*	N		
37401	Mary Queen of Scots	*37268, D6968*	P	Locomotive Services, Crewe	045
37402	Bont Y Bermo**, Stephen Middlemoor 29/12/54 - 8/6/13**, Oor Wullie	*37274, D6974*	A		BLL
37403	Isle of Mull	*37307, D6607*	P	North Yorkshire Moors Railway	BLL
37407	Loch Long**, Blackpool Tower	*37305, D6605*	A		BLL
37409	Loch Awe**, Lord Hinton**	*37270, D6970*	P	HNRC Barrow Hill	045
37413	Loch Eil Outward Bound**, Scottish Railway Preservation Society**	*37276, D6976*	X		
37418	An Comunn Gaidhealach, Gordon Grigg**, Pectinidae**	*37271, D6971*	A		LOR
37503	British Steel Shelton**	*37017, D6717*	P	The Shires Removal Group, Kinsley, Pontefract	EWS
37508		*37606, 37090, D6790*	P	Nemesis Rail, Burton-on-Trent	RFA
37516	Loch Laidon	*37086, D6786*	P		WCR
37518	Fort William/An Gearasdan	*37076, D6776*	P		WCR
37521	English China Clays**	*37117, D6817*	P		BLK
37558	Glendarrock**, Isle of Mull**, Avro Vulvan XH558	*37424, 37279, D6979*	S		BLL

BR Diesel

37667	Wensleydale** Meldon Quarry Centenary **, FLOPSIE	*37151, D6851*	P	HNRC Barrow Hill	LBK
37669		*37129, D6829*	P		WCR
37674	Saint Blaise Church 1445-1995**	*37169, D6869*	P	Strathspey Railway	RFG
37676	Loch Rannoch	*37126, D6826*	P		WCR
37679		*37123, D6823*	P	RSS Wishaw	
37685	Loch Arkaig	*37234, D6934*	P		WCR
37688 [3]	Great Rocks, Kingmoor TMD**	*37205, D6905*	P	Locomotive Services, Crewe	BRT
37703	Vulcan	*L25, L023, 37067, D6767*	P	Dartmouth Steam Railway	BRT
37706	Conidae**	*37016, D6716*	P		WCR
37714	Cardiff Canton	*L26, L031, 37024, D6724, Thornaby TMD*	P	Great Central Railway	BRT
37901	Mirrlees Pioneer	*37150, D6850*	A	UKRL Leicester	RFM
37905	Vulcan Enterprise**	*37136, D6836*	S	UKRL Leicester	GRN
37906	Star of the East**	*37206, D6906*	S	Battlefield Line	RFD
6737	Gartcosh**, Loch Treig	*37037, 37321, D37321*	P	South Devon Railway	BRB
6975	Stainless Pioneer**, Oor Wullie**	*37275, D37275*	P	Dartmouth Steam Railway	BRB
D6700	National Railway Museum	*37350, 37119*	P	Great Central Railway	GRN
D6729		*37029*	P	Pontypool & Blaenavon Railway	GRN
D6732	Mirage**	*37032, 37353*	O	Barrow Hill	GRN
D6948	Loch Arkaig**, Midland Railway Centre**	*37248*	P	Gloucestershire Warwickshire Steam Railway	GRN

Notes

1: Being fitted with Meteor Power Electric Powertrain to be a battery powered loco
2: Rebuilt as Class 23 Baby Deltic D5910
3: On loan to LSL.

40

Class 40 Whistler



The British Rail Class 40 is a type of British railway diesel electric locomotive. A total of 200 were built by English Electric between 1958 and 1962. They were numbered D200-D399. They were, for a time, the pride of British Rail's early diesel fleet. However, despite their initial success, by the time the last examples were entering service they were already being replaced on some top-level duties by more powerful locomotives. As they were slowly relegated from express passenger uses, the type found work on secondary passenger and freight services where they worked for many years. The locomotives were commonly known as "Whistlers" because of the distinctive noise made by their turbochargers. The final locomotives ended regular service in 1985, although several examples are preserved.

Builder	English Electric
Max Speed	90mph
Introduced	1958
Withdrawn	1988
Length	21.18m
Weight	135t
Engine	EE 16SVT
Transmission	Diesel-Electric
Power	1490kW
TE	231kN
Wheel Arrangement	1Co-Co1
Width	2.74m
Height	3.91m
Driving Wheel Dia	1.143m
Wheelbase	18.67m

BR Diesel

Number	Name			Note	Base	Livery
40012	Aureol	*D212, 97407*	P		Midland Railway - Butterley	BRB
40106	Atlantic Conveyor	*D306, 89406*	P		Severn Valley Railway	GRN
40118		*D318, 97408*	P		Battlefield Line	BRB
40135		*D335, 97406*	P		East Lancashire Railway	BRB
D200		*40122*	D		Locomotion - NRM Shildon	GRN
D213	Andania	*40013*	P	LSL for Charter use	HNRC Worksop	GRN
D345		*40145*	P		East Lancashire Railway	GRN

41

Class 41 HST Prototype



The British Rail Class 41 were two powercars, numbered 41001 and 41002, built in 1972 by British Rail Engineering Limited's Crewe Works to operate with the prototype High Speed Train (HST) with Mark 3 carriages. They initially conducted tests on the East Coast Main Line with the set based at Neville Hill TMD.

Having accumulated more than 100,000 miles, including setting a diesel train speed record of 143 mph between Northallerton and Thirsk in June 1973, they moved to the Great Western Main Line in 1974 entering revenue service on Great Western services between London Paddington and Bristol Temple Meads / Weston-super-Mare.

After the Class 252 re-classification they were renumbered into the carriage numbering range as 43000 and 43001. After being replaced by production Class 43 HST powercars in the early 1980s, both were allocated to the Railway Technical Centre and used in various high speed trials associated with the Advanced Passenger Train and InterCity 225 projects. In December 1990, 41002 was scrapped by CF Booth in Rotherham, while 41001 was restored cosmetically and donated to the National Railway Museum.

In 2011, the National Railway Museum agreed a lease with the 125 Group that resulted in 41001 moving from York to Neville Hill TMD in March 2012 to be restored to operational condition. As part of this move, it was re-registered on TOPS as Class 43/9 locomotive 43000.

Introduced	1972
Withdrawn	1982
Builder	BREL Crewe
Power	1678 kW
TE	80 kN
Length	17.17m
Width	2.72m
Height	3.91m
Wheel Arrangement	Bo-Bo
Weight	68.5t
Engine	Paxman Valenta 12RP200L
Transmission	Brush TMH68-46
Max Speed	125mph
Driving Wheel Dia	1.016m
Wheelbase	12.9m

Number			Base
41001	*43000, ADB975812*	P	Locomotion - NRM Shildon

42

Class 42 Warship



The British Rail Class 42 Warship diesel-hydraulic locomotives were introduced in 1958. It was apparent at that time that the largest centre of expertise on diesel-hydraulic locomotives was in West Germany. The Western Region of British Railways negotiated a licence with German manufacturers to scale down the German Federal Railway's "V200" design to suit the smaller loading gauge of the British network, and to allow British manufacturers to construct the new locomotives. The resultant design bears a close resemblance, both cosmetically and in the engineering employed, to the original V200 design.

Warship locomotives were divided into two batches: those built at BR's Swindon works were numbered in the series D800-D832 and D866-D870, had a maximum tractive effort of 52,400 pounds-force (233,000 N) and eventually became British Rail Class 42. 33 others, D833–D865, were constructed by the North British Locomotive Company and became British Rail Class 43. They were allocated to Bristol Bath Road, Plymouth Laira, Newton Abbot and Old Oak Common.

Two Class 42s are preserved, D821 and D832

Gauge	1435mm
Builder	BR Swindon
Max Speed	90mph
Introduced	1958-61
Length	18290mm
Width	2690mm
Height	3670mm
Weight	79.3t
Engine	Maybach MD650
Transmission	Mekydro Hydraulic

BR Diesel

Power	772kW/846kW X2
TE	214kN
Driving Wheel Dia	1003mm
Wheelbase	14710mm
Wheel Arrangement	Bo-Bo
Withdrawn	1972

Number	Name			Base	Livery
D821	Greyhound	*89421*	P	Severn Valley Railway	BRB
D832	Onslaught	*89432*	P	East Lancashire Railway	BRB

43

Class 43 HST



MRG

The British Rail Class 43 (HST) is the TOPS classification used for the InterCity 125 High Speed Train (formerly classes 253 and 254) power cars, built by British Rail Engineering Limited from 1975 to 1982, and in service in the UK since 1976. The class is officially the fastest diesel locomotive in the world, with an absolute maximum speed of 148.5 mph (239.0 km/h), and a regular service speed of 125 mph (201 km/h). The record run was led by 43102 (43302) and trailed by 43159.

Length	17.79m
Width	2.74m
Height	3.91m

BR Diesel

Introduced	1975
Wheel Arrangement	Bo-Bo
Builder	BREL Crewe
Weight	70.25t
TE	17980lbf
Max Speed	125mph
Driving Wheel Dia	1.016m
Power	1678kW
Transmission	Diesel-Electric

Number	Name		Note	Base	Livery
43002	Sir Kenneth Grange	*253001*	D	National Railway Museum	125
43018	The Red Cross		D	Crewe Heritage Centre	125
43023	SQN LDR HAROLD STARR ONE OF THE FEW**, HST 50 - 50 years of the InterCity 125		P	Colne Valley Railway	HST
43024	Great Western Society 1961-2011 Didcot Railway Centre**		S		FGB
43025	IRO The Institution of Railway Operators 2000-2010 TEN YEARS OF PROMOTING OPERATIONAL EXCELLENCE**, Exeter	*253012*	P	East Lancashire Railway	ICW
43044	Borough of Kettering**, Edward Paxman		P	East Lancashire Railway	ICE
43045	The Grammar School Doncaster		P	Peterborough Railworld	SCE
43046	Royal Philharmonic**, Geoff Drury 1930-1999 Steam Preservation and Computerised Track Recording Pioneer		P	Locomotive Services, Crewe	BPM
43047	Rotherham Enterprise**		P	Locomotive Services, Crewe	BPM

43048	T.C.B. Miller MBE	*253024*	P		Nene Valley Railway	MML
43049	Neville Hill		P		Locomotive Services, Crewe	BPM
43050	Loch Morar		P		Locomotive Services, Crewe	BPM
43054			S	Stored (damaged)	Locomotive Services, Crewe	SCE
43055	Sheffield Star 125 Years**		P		Locomotive Services, Crewe	BPM
43056	The Royal British Legion**		D		Gwili Railway	FGB
43058	Midland Pride**, Loch Eil		P		Locomotive Services, Crewe	BPM
43059	Loch Shiel		P		Locomotive Services, Crewe	BPM
43063	Rio Challenger**		D	For Static Display (No engine)	Plym Valley Railway	FGB
43071	Forward Birmingham**		P		Colne Valley Railway	FGB
43073	Neville Hill Depot - 42 Years		P		Colne Valley Railway	SCE
43081	Midland Valenta** (26/07/08 only)		D		Crewe Heritage Centre	SCE
43082	Railway Children - The Voice For Street Children Worldwide**		P		Colne Valley Railway	SCE
43089	Hayabusa**		P		East Lancashire Railway	SCE
43102	Diocese of Newcastle**, World Speed Record - HST**, The Journey Shrinker 148.5 MPH The Worlds Fastest Diesel Train	*43302*	D		Locomotion - NRM Shildon	ICS

BR Diesel

43159	Rio Warrior		P		East Lancashire Railway	MMLB
43165	Prince Michael of Kent**		P		Colne Valley Railway	FGB
43190			Z	Spares donor	East Lancashire Railway	FGB
43200	County of Leicestershire**Heaton 150	*43060, 254003*	P		East Lancashire Railway	GNER

44

Class 44 Peak



John J Cordrey

The British Rail Class 44 or Sulzer Type 4 diesel locomotives were built by British Railways' Derby Works between 1959 and 1960, intended for express passenger services. They were originally numbered D1-D10 and named after British mountains, and, along with the similar Class 45 and 46 locomotives, they became known as Peaks. Both existing examples preserved.

Gauge	1435mm
Builder	BR Derby
Max Speed	75mph
Introduced	1959-60
Withdrawn	1980
Length	20700mm
Width	2710mm

BR Diesel

Height	3910mm
Weight	135t
Engine	Sulzer 12LDA28-A
Transmission	Diesel Electric
Power	1715kW
TE	222kN
Driving Wheel Dia	1143mm
Wheelbase	18190mm
Wheel Arrangement	1Co-Co1

Number	Name			Note	Base	Livery
D4	Great Gable	*44004*	P	WDN:11/1980 | Peak Locomotive Company	Midland Railway - Butterley	SSB
D8	Penyghent	*89408, 44008*	P	WDN:11/1980	Peak Rail	GRN

45

Class 45 Peak



The British Rail Class 45 or Sulzer Type 4 are diesel locomotives built by British Railways' Derby and Crewe Works between 1960 and 1962. Along with the similar Class 44 and 46 locomotives, they became known as Peaks. The Class 45s became the main traction on the Midland Main Line from 1962, and their introduction allowed considerable acceleration of the previous steam-powered service.

The Class 45s remained the main source of power on the Midland Main Line up to 1982, when they were relegated to secondary services following introduction of HSTs on the

route. From 1986 Class 45s virtually disappeared from the line and all were withdrawn by the end of 1989. All remaining survivors now preserved.

Builder	BR Derby & Crewe
Max Speed	90mph
Introduced	1960-62
Withdrawn	1989
Length	20700mm
Width	2710mm
Height	3910mm
Weight	135t
Engine	Sulzer 12LDA28-B
Transmission	Diesel Electric
Power	1864kW
TE	245kN
Driving Wheel Dia	1143mm
Wheelbase	18190mm
Wheel Arrangement	1Co-Co1

Number	Name			Note	Base	Livery
45015		*D14*	S			BRB
45041	ROYAL TANK REGIMENT	*89453, D53*	P	on long term loan from Midland Railway - Butterley	Nene Valley Railway	BRB
45060	Sherwood Forester	*89460, D100*	P		Barrow Hill	BRB
45105		*D86*	P		Barrow Hill	BRB
45108		*89420, D120*	P	on long term loan from Midland Railway - Butterley	East Lancashire Railway	BRB
45112	The Royal Army Ordnance Corps	*D61*	S		Nemesis Rail, Burton-on-Trent	SBB
45118	THE ROYAL ARTILLERYMAN	*D67*	P		Locomotive Services, Crewe	BRB
45132		*D22*	D		Epping & Ongar Railway	BRB

BR Diesel

45133		*89440, D40*	P	Midland Railway - Butterley	BRB
45135	3RD CARABINIER	*D99*	P	East Lancashire Railway	BRB
45149	PHAETON**	*D135*	P	Gloucestershire Warwickshire Steam Railway	BRB
D123	LEICESTERSHIRE AND DERBYSHIRE YEOMANRY	*89423, 45125*	A	Great Central Railway	GRN

46

Class 46 Peak



The British Rail Class 46 is a class of diesel locomotive. They were built from 1961 to 1963 at British Railways' Derby Works and were initially numbered D138–D193. With the arrival of TOPS they were renumbered to Class 46. Along with the similar Class 44 and 45 locomotives, they became known as Peaks.

Fifty-six locomotives were built. The first was withdrawn in 1977 and all were withdrawn by the end of 1984. All surviving examples now preserved.

Gauge	1435mm
Builder	BR Derby
Max Speed	90mph
Introduced	1961-63
Withdrawn	1984
Length	20700mm

BR Diesel

Width	2710mm
Height	3910mm
Weight	140t
Engine	Sulzer 12LDA28-B
Transmission	Diesel Electric
Power	1864kW
TE	245kN
Driving Wheel Dia	1143mm
Wheelbase	18190mm
Wheel Arrangement	1Co-Co1

Number	Name			Note	Base	Livery
46010		*D147, 89410*	P	Western Peak Group	Barrow Hill	BRB
46035	Ixion	*89472, 97403, D172*	P	Waterman Heritage Trust- Stored	Peak Rail	BRB
D182		*97404, 46045*	P		Severn Valley Railway	BRB

47

Class 47 Duff



The British Rail Class 47 or Brush Type 4 is a class of diesel-electric locomotive that was developed in the 1960s by Brush Traction. A total of 512 Class 47s were built at Brush's Falcon Works in Loughborough and at British Railways' Crewe Works between 1962 and 1968, which made them the most numerous class of British mainline diesel locomotive.

They were fitted with the Sulzer 12LDA28C twin-bank twelve-cylinder unit producing 2,750 bhp (2,050 kW) – though this was later derated to 2,580 bhp (1,920 kW) to improve

reliability – and have been used on both passenger and freight trains on Britain's railways for over 55 years.

Despite the introduction of more modern types of traction, a significant number are still in use, both on the mainline and on heritage railways. At least 31 class 47's have been preserved. 33 further locomotives were converted to Class 57s between 1998 and 2004.

Gauge	1435mm
Builder	Brush Traction, BR Crewe
Max Speed	95mph
Introduced	1962-68
Length	19380mm
Width	2690mm
Height	3900mm
Weight	114t-127t
Engine	Sulzer 12LDA28-C
Transmission	Diesel Electric
Power	1920kW
TE	245kN-267kN
Driving Wheel Dia	1143mm
Wheelbase	15700mm
Wheel Arrangement	Co-Co

Number	Name			Note	Base	Livery
1500	Star Of The East**, North Eastern	*D47401, 47401*	P		Midland Railway - Butterley	BRB
1662	ISAMBARD KINGDOM BRUNEL	*D47484, 47484*	S		RSS Wishaw	GRN
1705	SPARROWHAWK	*D47402, 47117, 47402*	P		Great Central Railway	BRB
47077	NORTH STAR	*47613, 47840, D1661*	P	On loan to the North Yorkshire Moors Railway	West Somerset Railway	BRB
47105		*D1693*	P		Gloucestershire Warwickshire Steam Railway	BRB
47205		*47395, D1855*	P		Northampton & Lamport Railway	RFD
47292	Her Majesty's Railway Inspectorate 175	*D1994*	P		Churnet Valley Railway	BLL

47306	The Sapper	*D1787*	P		Bodmin & Wenford Railway	RFI
47367		*D1886*	P			BRB
47376	Freightliner 1995	*D1895*	P		Gloucestershire Warwickshire Steam Railway	FLY
47449	ORION	*D1566*	P		Llangollen Railway	BRB
47524	Res Gestae	*D1107*	X			
47540	The Institution of Civil Engineers**	*47975, D1723*	X			
47555	Ressaldar**	*47631, 47059, D1643, 47765*	P		East Lancashire Railway	045
47580	County of Essex, Restormel**	*47167, D1762, 47732*	P	Union Flag vinyls	Mid Norfolk Railway	BLL
47635	The Lass O'Ballochmyle**, Jimmy Milne	*47029, D1606*	P		Epping & Ongar Railway	BLL
47640	University of Strathclyde	*47244, D1921*	P		Nemesis Rail, Burton-on-Trent	BLL
47643		*47269, D1970*	P		Bo'ness & Kinneil Railway	ICM
47701	Saint Andrew**, Old Oak Common Traction & Rolling Stock Depot**, Waverley	*47493, D1932*	P		Nemesis Rail, Burton-on-Trent	GRN
47712	Lady Diana Spencer, Dick Whittington**, Artemis**, Pride of Carlisle**	*47505, D1948*	P	On loan to LSL	Locomotive Services, Crewe	045
47714	Thames**, Grampian Region**	*47511, D1955*	S		Wensleydale Railway	RES
47715	Haymarket**, Poseidon**, Rail Engineering Solutions Quality Assured	*47502, D1945*	S		Chinnor & Princes Risborough Railway	VTR
47761	Colossus**	*47564, 47038, D1619*	P		Midland Railway - Butterley	RES

47771	The Geordie**, Heaton Traincare Depot**	*47503, D1946*	P		Arlington Fleet Services - Eastleigh Works	RES
47773	The Queen Mother**, Reservist**	*47541, 47161, D1755*	P		Tyseley Locomotive Works	GRN
47785	The Statesman**, Fiona Castle**	*47820, 47665, 47232, D1909*	P		Wensleydale Railway	EWS
47793	James Nightall GC, Saint Augustine**, Christopher Wren**	*47579, 47183, D1778*	P	On loan from Mangapps Railway Museum	Mid Hants Railway	BRB
47798	FIRE FLY**, Prince William	*47834, 47609, 47072, D1656*	P		National Railway Museum	ROZ
47799	Windsor Castle**, Prince Henry**	*47835, 47620, 47070, D1654*	P		Eden Valley Railway	ROZ
47828	Severn Valley Railway**, Joe Strummer**, Titan Star**	*47629, 47266, D1966*	P		Locomotive Services, Crewe	ICS
47830	BEECHING'S LEGACY**	*47649, 47061, D1645*	P		Locomotive Services, Crewe	GRN
47841	The Institution of Mechanical Engineers, Spirit of Chester**	*47622, 47134, D1726*	S		Locomotive Services, Crewe	ICS
D1501	Gateshead	*47402*	P		Chinnor & Princes Risborough Railway	GRN
D1516		*47417*	P		Midland Railway - Butterley	GRN
D1524	Old Oak Common Traction & Rolling Stock Depot	*47004*	P		Embsay & Bolton Abbey Steam Railway	GRN
D1842		*47192*	P		Ecclesbourne Valley Railway	GRN
D1933	Aldeburgh Festival	*47255, 47596*	P		Mid Norfolk Railway	GRN

50

Class 50 Hoover



The British Rail Class 50 is a class of diesel locomotives designed to haul express passenger trains at 100 mph (160 km/h). Built by English Electric at the Vulcan Foundry in Newton-le-Willows between 1967 and 1968, the Class 50s were initially on a 10-year lease from English Electric Leasing, and were employed hauling express passenger trains on the, then non-electrified, section of the West Coast Main Line between Crewe and Scotland.

Initially numbered D400–D449 and known as English Electric Type 4s, the locomotives were purchased outright by British Rail (BR) at the end of the lease and became Class 50 in the TOPS renumbering of 1973. All remaining examples are now preserved

Gauge	1435mm
Builder	English Electric
Max Speed	100mph
Introduced	1967-68
Length	20880mm
Width	2690mm
Height	3890mm
Weight	117t
Engine	English Electric 16CSVT
Transmission	Diesel Electric
Power	2010kW
Driving Wheel Dia	1092mm
Wheelbase	17120mm
Wheel Arrangement	Co-Co
Withdrawn	1994
TE	48500lbf

Number	Name	Note	Base	Livery

BR Diesel

50002	Superb	*89402, D402*	P	Devon Diesel Society	South Devon Railway	BLL
50007	Hercules, SIR EDWARD ELGAR**	*89407, D407*	P	at ZG for repaint	Severn Valley Railway	BLL
50008	Thunderer	*89408, D408*	P		Arlington Fleet Services - Eastleigh Works	LBL
50015	Valiant	*89415, D415*	P	Bury Valiant Group	East Lancashire Railway	BLL
50017	Royal Oak	*50117, 89417, D417*	O		Great Central Railway	NSE
50019	Ramilles	*D419*	P	Class 50 Association	Mid Norfolk Railway	BLL
50021	Rodney	*89422, D421*	P	The Fifty Fund	Arlington Fleet Services - Eastleigh Works	BLL
50026	Indomitable	*89426, D426*	P	The Fifty Fund	Severn Valley Railway	NSE
50027	Lion	*89427, D427*	P	Private	Mid Hants Railway	NSE
50029	Renown	*D429*	P	Renown - Repulse Group	Peak Rail	BLL
50030	Repulse	*D430*	P	Renown - Repulse Group	Peak Rail	BLL
50031	Hood	*89431, D431, 431*	P	The Fifty Fund	Severn Valley Railway	ICS
50033	Glorious**	*89433, D433*	P	The Fifty Fund	Severn Valley Railway	BLL
50035	Ark Royal**	*50135, D435*	P	The Fifty Fund	Severn Valley Railway	BRB
50040	Centurion**, Leviathan**	*D440*	X	WDN:3/8/90 | Scrapped at Sims Metals, Halesowen, June-July 2008		
50042	Triumph	*89443, D442*	P	Bodmin Heritage Diesels	Bodmin & Wenford Railway	BLL
50044	Exeter	*89444, D444*	P	50	Severn Valley Railway	BRB

BR Diesel

50049	Defiance	*89449, 50149, D449*	P	Severn Valley Railway	BLL
50050	Fearless	*D400*	P	Boden Engineering, Colwick	BRB

52

Class 52 Western



The British Rail Class 52 is a class of 74 Type 4 diesel-hydraulic locomotives built for the Western Region of British Railways between 1961 and 1964. All were given two-word names, the first word being "Western" and thus the type became known as Westerns. They were also known as Wizzos and Thousands. All remaining examples now preserved.

Gauge	1435mm
Transmission	Diesel Hydraulic
Wheel Arrangement	C-C
Builder	BR Swindon, Crewe
Max Speed	90mph
Introduced	1961-64
Withdrawn	1977
Length	20730mm
Width	2640mm
Height	3960mm
Weight	110t
Engine	Maybach MD655 X2
Power	1007kW X2

BR Diesel

TE	297kN
Driving Wheel Dia	1092mm
Wheelbase	1666mm

Number	Name			Note	Base	Livery
D1010	Western Campaigner	*D1035, 89437, Western Yeoman*	P	Awaiting Repairs	West Somerset Railway	MAR
D1013	WESTERN RANGER	*89413*	P	Undergoing Overhaul	Severn Valley Railway	BRB
D1015	WESTERN CHAMPION	*89416*	P		Severn Valley Railway	BRB
D1023	WESTERN FUSILIER	*89424*	P		Didcot Railway Centre	BRB
D1040	Western Queen	*89462, WESTERN COURIER, D1062*	P	Running as D1040 Western Queen for the Jubilee	Severn Valley Railway	BRB
D1041	WESTERN PRINCE	*89441*	P	Undergoing Overhaul	East Lancashire Railway	
D1048	WESTERN LADY	*89448*	P		Severn Valley Railway	BRB

55

Class 55 Deltic



John J Cordrey

The British Rail Class 55, also known as a Deltic, or English Electric type 5, is a class of diesel locomotive built in 1961 and 1962 by English Electric for British Railways. They were designed for the high-speed express passenger services on the East Coast Main Line (ECML) between Edinburgh and London King's Cross.

They gained the name "Deltic" from the prototype locomotive, DP1 Deltic (the running number DP1 was never carried), which in turn was named after its Napier Deltic power units. At the time of their introduction into service, the Class 55s were the most powerful single-unit diesel locomotives in the world, with a power output of 3,300 hp. They had an official maximum speed of 100 miles per hour, however this was frequently exceeded, especially in their later years of service, with speeds of up to 117 miles per hour, being recorded on level gradients, and up to 125 miles per hour whilst descending Stoke Bank.

Twenty-two locomotives were built, which were used for express passenger services on the ECML, particularly from London to Leeds and Edinburgh. From 1978 the "InterCity 125" High Speed Trains (HSTs) were introduced, and the Deltics were subsequently relegated to semi-fast services on the Kings Cross to York, Edinburgh and Hull routes and continued on sleeper services along the ECML. All were withdrawn from service between January 1980 and December 1981. All remaining examples now preserved.

Gauge	1435mm
Builder	English Electric
Max Speed	100mph
Introduced	1961-62
Length	21180mm
Width	2680mm

BR Diesel

Height	3910mm
Weight	101t
Engine	Napier Deltic D18-25 x2
Transmission	Diesel Electric
Power	1230kW x2
TE	222kN
Driving Wheel Dia	1143mm
Wheelbase	17830mm
Wheel Arrangement	Co-Co
Withdrawn	1981

Number	Name			Note	Base	Livery
55009	ALYCIDON	*D9009, 89509, 55013, The Black Watch*	P	Temporarily running as 55013 The Black Watch	Barrow Hill	BRB
55019	Royal Highland Fusilier	*D9019, 89519*	P		Barrow Hill	BRB
D9000	ROYAL SCOTS GREY	*55022, 89500*	P		Locomotive Services, Crewe	GRN
D9002	THE KING'S OWN YORKSHIRE LIGHT INFANTRY	*55002, 89520*	D		National Railway Museum	GRN
D9015	Tulyar	*55015, 89515*	O		Barrow Hill	GRN
D9016	GORDON HIGHLANDER	*55016, 89516*	P		One:One Collection	GRN

56

Class 56 Grid



Chris Harley

The British Rail Class 56 is a type of diesel locomotive designed for heavy freight work. It is a Type 5 locomotive, with a Ruston-Paxman power unit developing 3,250 bhp (2,423 kW), and has a Co-Co wheel arrangement. Enthusiasts nicknamed them "Gridirons" (or "Grids" for short), due to the grid-like horn cover on the locomotive's cab ends fitted to nos. 56056 onwards.

The Class 56 fleet was introduced between 1976 and 1984, a total of 135 examples were manufactured. The first 30 locomotives (56001 - 56030) were built by Electroputere in Romania, but these typically suffered from poor construction standards and many were withdrawn from service early for extensive rebuilding before re-entering revenue service. The remaining 105 locomotives were built by British Rail Engineering Limited (BREL) at Doncaster Works (56031 to 56115) and Crewe Works (56116 to 56135).

In April 2019, GBRf announced that several Class 56 locomotives would be rebuilt as Class 69s by Progress Rail at its Longport facility. The rebuild scheme involves the replacement of the original Ruston-Paxman RK3 engine with the EMD 710 powerplant, while newer electronic control systems based on those present on the Class 66 were also installed. While the external appearance and many elements were retained, much of the internal systems were replaced with those sourced from the Class 66.

Length	19.35m
Width	2.79m
Height	3.89m
Introduced	1976
Wheel Arrangement	Co-Co
Power	2400bHP
Weight	125t
TE	61800lbf

BR Diesel

Engine	Ruston-Paxman 16RK3CT
Transmission	Brush TM73-62
Max Speed	80mph

Number	Name			Base	Livery
56006	Ferrybridge 'C' Power Station**		P	East Lancashire Railway	BRB
56303	Brian**	*56125*	P	East Lancashire Railway	DCR

57

Class 57 Bodysnatcher



Dan Cardwell

The British Rail Class 57 is a type of diesel locomotive that was remanufactured from Class 47s by Brush Traction of Loughborough between 1998 and 2004 and was produced in response to an order placed in November 1997 by the recently privatised freight operator Freightliner.

The company sought to have its aging Class 47s, some of which had become increasingly unreliable and uncompetitive in comparison to new-build counterparts. Accordingly, redundant locomotives were handed over to Brush, where they were fitted with re-conditioned Electro-Motive Diesel (EMD) engines and the same model of traction alternator as that fitted to the Class 56 heavy freight locomotive.

As a result of this scheme, improved reliability and performance was recorded; Freightliner placed multiple follow-on orders for more to be rebuilt, as would other operators.

However, Freightliner abandoned its long-term plans to acquire twenty-five Class 57s in favour of new-built Class 66 locomotives instead.

Length	19.38m
Width	2.79m
Height	3.9m
Introduced	1998
Wheel Arrangement	Co-Co
Builder	Brush Traction
Driving Wheel Dia	1.143m
Wheelbase	15.7m
Weight	115t-119t
Engine	EMD 645-E3 / EMD 645-F3B
Transmission	Diesel-Electric
Max Speed	75mph/95mph

Number	Name			Base	Livery
57003	, Freightliner Evolution**, Inter City Railway Society 50th Anniversary 1973-2023	*47317, D1798*	P	Locomotive Services, Crewe	RFD
57007	John Scott 12.5.45 - 22.5.12**, Freightliner Bond**	*47332, D1813*	X	Locomotive Services, Crewe	DRS

58

Class 58 Bone



The British Rail Class 58 is a class of Co-Co diesel locomotive designed for heavy freight. The narrow body with cabs at either end led to them being given the nickname "Bone" by rail enthusiasts.

Their design represented a major departure from British conventions of construction; amongst the innovations was the adoption of the American practice of modularisation. The first locomotive of the class was delivered to British Rail during early 1983 and entered service that same year. Despite expectations of a lengthy service life, during 2002, EWS decided to withdraw all examples of the type after only 19 years in service. Subsequently, 32 were hired abroad – four to the Netherlands, eight to Spain and twenty to France. A few examples have also been scrapped or have entered preservation.

Introduced	1982-87
Wheel Arrangement	Co-Co
Builder	BREL Doncaster
Power	1780kW
Weight	130tonnes
TE	275kN
Engine	Rushton/Paxman 12RK3ACT
Transmission	Electric
Max Speed	80mph
Driving Wheel Dia	1120mm
Length	19.13m
Width	2.72m
Height	3.91m
Withdrawn	2002
Wheelbase	17.75m

Number	Name			Note	Base	Livery
58012			R		Battlefield Line	MLG
58016			R	Awaiting restoration	UKRL Leicester	FER
58022		*10000*	M	Donor Loco for Project Icon. Being rebuilt into LMS 10000	Ecclesbourne Valley Railway	MLG
58023	Peterborough Depot**, Leicester Depot		A		Severn Valley Railway	MLF
58048	Coventry Colliery**		R		Battlefield Line	EWS

60

Class 60 Tug



Phil Hayward

The British Rail Class 60 is a class of Co-Co heavy freight diesel-electric locomotives built by Brush Traction. They are nicknamed Tugs by rail enthusiasts. During the 1980s, it became increasingly apparent that British Rail required a more capable Type 5 locomotive for its heavy freight trains. Dissatisfaction with the British Rail Class 56's reliability led to the stipulation of a 95 percent availability, a stringent requirement at the time. A total of three

bids were received to a competitive tender issued on 10 August 1987; of these, Brush Traction's submission was selected and an order for 100 locomotives was issued during the following year. Despite the first example being completed during June 1989, due to a number of technical issues discovered during testing, the first examples of the Class 60 would not enter revenue service until late 1990.

Operated only during the final years of British Rail, the entire Class 60 fleet became the property of English Welsh & Scottish (EWS) following the privatisation of British Rail during the mid 1990s. While the company was reportedly unimpressed by the type's performance, it was retained for heavy freight duties while much of the fleet was stored and subsequently sold on to other operators. Between 2004 and 2007, typically between 50 and 75% of the fleet would be out of action at a given time. However, during November 2010, EWS's successor, DB Schenker, announced that a portion of the fleet would be overhauled, referring to such units as Super 60s and extending their service life through to around 2025. Not all Class 60s received such overhauls however. During 2020, a Class 60 became the first example of the type to be scrapped, while another became the first to be preserved.

Length	21.34m
Width	2.64m
Height	3.95m
Introduced	1989
Wheel Arrangement	Co-Co
Builder	Brush Traction
Power	2300KW
Weight	129t
TE	474KN
Engine	Mirrlees Blackstone 8MB275T
Transmission	Brush TM2161A
Max Speed	60mph
Wheelbase	15.3m

Number	Name		Note	Base	Livery
60050	Roseberry Topping**	Z	Reported Scrapped		EWS
60081	Isambard Kingdom Brunel**, Bleaklow Hill**	P		One:One Collection	GRN
60086	Schiehallion**	Z	Reported Scrapped		RFE

DP1

Diesel Prototype 1



Deltic DP1 at Locomotion Shildon

Dan Cardwell

English Electric DP1, commonly known as Deltic, was a prototype 3,300 hp (2,500 kW) demonstrator locomotive employing two Napier Deltic engines, built by English Electric in 1955. The high power of the locomotive at an acceptably low axle load resulted in 22 similar locomotives being ordered by British Railways for use on East Coast Main Line express passenger services; the serial production of which became the British Rail Class 55

Length	66'
Width	8' 9.5"
Introduced	1955
Withdrawn	1961
Wheel Arrangement	CoCo
Builder	English Electric
Power	3300HP
Weight	108t
TE	52500 lbf
Engine	Napier Deltic D18-25 (x2)
Transmission	Diesel Electric
Max Speed	106mph
Driving Wheel Dia	3ft 7ins
Wheelbase	14' 4" bogies
Height	12' 10.5"

Number	Name	Note	Base

DP1	Deltic	*89523*	P	CoCo	Locomotion - NRM Shildon

Misc. Shunters

Miscellaneous Shunters



Miscellaneous small shunters not in BR classes.

Length	Varies
Width	Varies
Height	Varies

Number	Name			Note	Base	Livery
11230		*No.2, CEGB 2, 2574, 7860*	P	Industrial loco built to similar design to BR class 04	Gloucestershire Warwickshire Steam Railway	BLK
91	Alf	*D2999, 7856*	P	D2/11 0-4-0DE	Middleton Railway	
97650		*PWM650, 312990*	P	97/6	Peak Rail	BRB
97654		*PWM654, 431761*	P	97/6	Peak Rail	BRB
D0226		*D226, 2345*	A	English Electric Vulcan	Keighley & Worth Valley Railway	GRN

BR Diesel

D1120	David J Cook	*63.000.305*		English Electric 0-6-0DH	Somerset & Dorset Railway	GRN
D2511		*D1202*	A	D2/12	Keighley & Worth Valley Railway	GRN
D2700	North British	*11700, 27426, 405, D27426*	P	D2/1	Whitwell & Reepham Railway Station	
D2767		*28020*	P	D2/10 0-4-0	Bo'ness & Kinneil Railway	
D2774		*28027*		D2/10 0-4-0	Strathspey Railway	
D2960	Silver Spoon	*281269, 11510*	A	Ruston & Hornsby 0-4-0	Severn Valley Railway	GRN
D2961		*418596, 11511*	P	Ruston & Hornsby 0-4-0	Severn Valley Railway	GRN
DL26		*26, 5238*	P	Industrial loco built to similar design to BR class 05	Didcot Railway Centre	BLK
No.3	Drax, Aberthaw**	*8199, 3*	P	Industrial loco built to similar design to BR class 04	Aln Valley Railway	GRN
PWM651		*97651, 431758*	P	97/6	Swindon and Cricklade Railway	NRL

BR Diesel Railcars

AC

AC Cars Railcar

In the late 1950s, British Rail tested a series of small railbuses, produced by a variety of manufacturers, for about £12,500 each. These proved to be very economical but were somewhat unreliable. Most of the lines they worked on were closed following the Beeching Cuts and, being non-standard, they were all withdrawn in the mid-1960s, so they were never classified under the TOPS system.

Builder	A.C. Cars Ltd
Engine	B.U.T. AEC 220AJ 150 h.p. six-cylinder horizontal diesel engine
Withdrawn	1968
Introduced	1958
Power	150HP
Transmission	Mechanical
Diagram	614
Length	36ft
Wheel Arrangement	A-A
Max Speed	55mph

Number		Base	Livery
79976	S	Nemesis Rail, Burton-on-Trent	GRN
79978	R	Swindon and Cricklade Railway	GRN

Drewry

Overhead Line Inspection Vehicle - OLIVe



Chris Harley

This is one of two vehicles built by the Drewry Car Company in 1950 for British Railways for overhead line inspection and maintenance. They were works numbers 2267 & 2268, and were given the numbers DB998900 & DB998901 by British Railways.

The vehicles were offered for disposal on the Eastern Region 'surplus to requirements' list in late 1976. They were duly inspected by Derby Technical Centre staff, who were erecting non-operational overhead line equipment on their test track at Old Dalby in Leicestershire. They decided that one good vehicle could be built from the two and the remains scrapped.

The vehicle is diesel powered and has a maximum speed of 23.1mph! It was originally designed to work at a speed as low as 1.5 mph while inspection of the overhead line is in progress. It was fitted with a hydraulically operated inspection tower for this purpose, though this has been removed in preservation as the vehicle has been converted for passenger carrying use.

In February 2016 OLIVe the railbus was extensively damaged in an arson attack at the Middleton Railway by 3 youths who set fire to her in broad daylight, totally gutting the vehicle. Luckily the alarm was raised in time for the Fire Brigade to put out the fire before it caused irreparable damage - although the interior was completely gutted and significant damage caused to the upper bodywork.

Builder	Baguley Cars division at Burton-on-Trent
Introduced	1950
Power	68HP
Weight	16 tons 10 cwt

Engine	4 cylinder Gardner 4LW
Transmission	Mechanical
Length	29ft
Withdrawn	1990
Max Speed	23.1mph

Number	Name		Note	Base	Livery
998901	Olive	O	Serious Fire Damage EM2 Loco Group	Middleton Railway	GRN

LEV

Leyland Experimental Vehicles



LEV1, Leeming Bar, Sep-22

MRG

British Rail returned to the idea of railbuses from the mid-1970s, and a prototype four wheelvehicle was developed jointly by British Leyland and the British Rail Research Division. Several single-car railbuses were built and tested, in co-operation with Leyland (hence the generic term for these vehicles as LEV (Leyland Experimental Vehicle) railbuses). The first three single-car prototypes were essentially Leyland National bus bodies mounted on a modified HSFV1 four-wheeled rail chassis.

Length	Varies
Introduced	1987
Builder	British Leyland & BREL Derby

BR Diesel Railcars

Number	Name			Base	Livery
LEV1	LEV 1	*RDB975874, 975874*	D	Locomotion - NRM Shildon	YEL
LEV2	LEV 2		X		
LEV3	LEV 3	*RDB977020, 977020, RB003*	R	Gwendraeth Valley Railway	
RB002			P	Riverstown Old Corn Railway	
RB004			O	Shed 47, Fife	CHC

Wickham

Wickham Railbus



loveofrail

Former Derby Research Centre Lab 20 now converted to passenger carrying use.

Builder	Wickham of Ware
Introduced	1958
Withdrawn	1991
Power	105HP
Engine	Meadows
Length	38ft

Number	Name			Base
999507	Laboratory 20	*8025*	R	North Dorset Railway, Shillingstone

WM

Waggon und Maschinenbau Railbus



The five British Railways Waggon und Maschinenbau railbuses were delivered in April 1958. They were based at Cambridge until 1964. They were withdrawn in 1966 and 1967.

The WMD railbuses were 5 of the total of 22 delivered in 1958 from five manufacturers (the rest British). They were planned to have "extensive trials". The underframe, power equipment, transmission and brake gear were similar to the Uerdingen railbus, common on the German Federal Railway. They were shipped via the Harwich-Zeebrugge train ferry.

It was hoped they might be the answer to increasing losses on rural branch-lines. In the first year of the railbuses they saved £66,000 in operating costs, but the branches were still lossmaking and were soon closed.

Four are preserved.

Introduced	1958
Withdrawn	1967
Builder	Waggon und Maschinenbau
Power	150HP
Engine	Buessing
Transmission	Mechanical
Length	12.75m
Height	3.58m
Weight	15t
Max Speed	55mph

Number			Note	Base	Livery
79960		A	North Norfolk Railway On loan to Ribble Steam Railway	Ribble Steam Railway	GRN
79962		A	Vintage Carriage Trust	Llangollen Railway	GRN
79963		R		East Anglian Railway Museum	GRN
M79964	*79964*	A		Keighley & Worth Valley Railway	GRN

BR Electric

373

Eurostar e300



Phil Hayward

The British Rail Class 373 or TGV TMST, sometimes referred to as Eurostar e300, is a French designed and Anglo-French built electric multiple unit train that is used for Eurostar international high-speed rail services from the United Kingdom to France and Belgium through the Channel Tunnel. Part of the TGV family, it was built with a smaller cross-section to fit the smaller loading gauge in Britain, was originally capable of operating on the UK third rail network, and has extensive fireproofing in case of fire in the tunnel.

Known as the TransManche Super Train (TMST) or Cross-channel Super Train before being introduced in 1993, the train is designated Class 373 under the British TOPS classification system and series 373000 TGV in France. It was built by the French company GEC-Alsthom. Since the introduction of the new Class 374 e320 units from Siemens in 2015, refurbished versions of the Class 373 or TGV-TMST sets have been officially referred to as e300 by Eurostar to distinguish them from the new Velaro fleet

Length	387m
Width	2.81m
Introduced	1992
Builder	GEC Alsthom

BR Electric

Engine	GEC Alsthom GTO–VVVF
Transmission	Brush TM2151B asynchronous three-phase AC
Max Speed	186mph

Number			Form	Note	Base	Livery
3304					One:One Collection	
3308	*373308*	P	733080, 733081, 733082, 733083, 733084, 733085, 733086, 733087, 733088, 733089	Power car preserved NRM York	National Railway Museum	EUS

71

Class 71



John J Cordrey

The British Rail Class 71 was an electric locomotive used on the Southern Region of British Railways. Unlike Southern Region electro-diesel locomotives (such as classes 73 and 74) they could not operate away from the electrified (750 V DC) system.

Gauge	1435mm
Builder	BR Doncaster
Max Speed	90mph
System	660-750v DC 3rd rail, Overhead
Introduced	1958-60
Withdrawn	1977

BR Electric

Weight	78.24t
Power	1720kW
TE	195kN
Driving Wheel Dia	1219mm
Wheel Arrangement	Bo-Bo

Number			Base	Livery
71001	*89403, E5001*	P	Locomotion - NRM Shildon	BRB

73

Class 73 Electro-Diesel



The British Rail Class 73 is a British electro-diesel locomotive. The type is unusual in that it can operate from the Southern Region's 650/750 V DC third-rail or an on-board diesel engine to allow it to operate on non-electrified routes. This makes it very versatile, although the diesel engine produces less power than is available from the third-rail supply, so the locomotives are rarely operated outside of the former Southern Region of British Rail.

Following the withdrawal and scrapping of the more powerful Class 74 electro-diesels in 1977, the Class 73 was unique on the British railway network until the introduction of the Class 88 electro-diesels in 2017. Ten locomotives have been scrapped. Several locomotives have been preserved on heritage railways, where they run on their diesel engines: no preserved line has third rail electrification.

System	750DC Third Rail
Length	16.36m
Introduced	1962

BR Electric

Wheel Arrangement	Bo-Bo
Power	1420HP
Weight	78.03t
TE	186KN
Driving Wheel Dia	1.016m
Builder	BR Eastleigh Works / EE Vulcan Foundry
Engine	English Electric 4SRKT Mk II 2 × Cummins QSK19 (73951-2) MTU 8V 4000 R43L (73961-971)
Transmission	73/0: EE 542A 73/1: EE 546/1B
Max Speed	73/0: 80 mph 73/1: 90 mph
Brakes	Vacuum, Air and Electropneumatic
Heating	ETH

Number	Name			Base	Livery
73001		*73901, E6001*	P	Ecclesbourne Valley Railway	BRB
73002		*E6002*	P	Arlington Fleet Services - Eastleigh Works	BLL
73003	Sir Herbert Walker	*E6003*	P	Dean Forest Railway	GRN
73110		*E6016*	P	Arlington Fleet Services - Eastleigh Works	BLU
73114	Stewarts Lane Traction & Maintenance Depot	*E6020*	P	Nemesis Rail, Burton-on-Trent	BLU
73118	Mary Rose**, The Romney, Hythe & Dymchurch Railway	*E6024*	S	Barry Tourist Railway	
73130 [1]	City Of Portsmouth	*E6037*	P	East Kent Railway	EPS
73140		*E6047*	P	Lavender Line	BRB
73210	Selhurst	*73116, E6022*	P	Ecclesbourne Valley Railway	ICS
E6036	City Of Winchester	*73129*	P	Cambrian Heritage Railway, Oswestry	BLU
E6940	Bluebell Railway	*73133*	P	Bluebell Railway	SBB

Notes
1: Scharfenberg Coupler Fitted

76

Class 76 EM1



The British Rail Class 76, also known as Class EM1 (Electric Mixed-Traffic 1), is a class of 1.5 kV DC, Bo-Bo electric locomotive designed for use on the now-closed Woodhead Line in Northern England.

The prototype, LNER No. 6701, was completed at Doncaster Works in 1941 to a design by Sir Nigel Gresley, but electrification of the Woodhead Route, together with construction of 69 similar units, was delayed by the Second World War. It was tested on the few sections of 1500 V DC lines owned by the LNER, but had not worked any great distance by 1947 when it was loaned to Dutch Railways to help with their post-war shortage of locomotives. In September 1945, the LNER assigned it the classification EM1; previously it had been unclassified.

Between 1950 and 1953, a further 57 locomotives were built at Gorton locomotive works, Manchester, to a modified design; these were also classified EM1. Electrical equipment was supplied by Metropolitan-Vickers, who completed the final assembly of the locomotives at Dukinfield Works. They were later reclassified as Class 76, under the TOPS classification scheme introduced on 28 March 1968.

System	1500V DC
Length	15.34m
Introduced	1947
Withdrawn	1981
Wheel Arrangement	Bo-Bo
Builder	BR Gorton Works
Power	969kW
Weight	89.3t

BR Electric

TE	200KN
Max Speed	65mph
Driving Wheel Dia	1.27m

Number			Base	Livery
26020	*E76020, 76020*	P	National Railway Museum	BLK

77

Class 77 EM2



The British Rail Class 77, also known as Class EM2, is a class of 1.5 kV DC, Co-Co electric locomotive. They were built by Metropolitan-Vickers in 1953–1954 for use over the Woodhead Line between Manchester and Sheffield.

Seven locomotives of this type were constructed. They represented the first Co-Co type of overhead electric locomotive built for use in the United Kingdom. The design was based on that of the smaller Class EM1, which dated from 1941. Initially, 27 locomotives of this type had been planned, but by the early 1950s, the benefits of using the 25 kV AC system had been demonstrated, which meant that the Woodhead Line would be an isolated electric system. Consequently, the order was cut to just seven locomotives.

Builder	BR/MET VIC
Withdrawn	1968
Power	2490hp
Wheel Arrangement	Co-Co
System	1500V DC
Length	17.98m

BR Electric

Introduced	1953
Weight	104.1t
TE	200KN
Max Speed	90mph
Driving Wheel Dia	1.092m

Number	Name			Note	Base	Livery
1505	ARIADNE	*E27001, 27001*	D		Manchester Museum Of Science & Industry	
27000	Electra	*E27000, 1502*	D	EM2 Loco Society	Midland Railway - Butterley	BLK
27003	DIANA	*E27003, 1501*	D		Utrecht Maliebaan	NSG

81

Class 81 AL1



Dan Cardwell

The British Rail Class 81 is a class of AC electric locomotives that formerly operated on the West Coast Main Line of the London Midland Region of British Rail.

The first type of AC electric locomotive to be delivered to British Railways were type AL1, designed by British Thomson-Houston (BTH), an order being placed for 25 examples. Of these, 23 were for use on passenger trains with a top speed of 100 mph and were

designated Type A. The other two locomotives were intended for freight train use, and geared for a top speed of 80 mph; these were designated Type B.

Sole surviving example preserved.

System	25kV AC
Length	17.22m
Width	2.65m
Height	3.77m
Introduced	1959
Withdrawn	1991
Wheel Arrangement	Bo-Bo
Builder	AEI at Birmingham Railway Carriage and Wagon Company
Power	690kW
Weight	80.9t
TE	222kN
Max Speed	100mph
Driving Wheel Dia	1.219m

Number			Base	Livery
81002	*E3003*	P	Barrow Hill	BRB

82

Class 82 AL2



Phil Hayward

Not to be confused with Driving Van Trailers, which are also numbered 82xxx in the carriage numbering series.

The British Rail Class 82 (AL2 under the pre-TOPS classification scheme) electric locomotives were designed by the British manufacturing interest Metropolitan-Vickers and produced by Beyer, Peacock and Company on behalf of British Rail (BR).

The locomotive was developed as a part of the programme of works to electrify the West Coast Main Line during the late 1950s and early 1960s. BR deliberately opted to procure multiple small batches of locomotives from a range of manufacturers. Having selected a proposal by the Metropolitan-Vickers division of the British manufacturing interest Associated Electrical Industries (AEI), the Class 82 would be produced. A total of ten locomotives were built by Beyer, Peacock and Company between 1960 and 1962.

The Class 82 proved to be a relatively reliable workhorse of the region, particularly following a refurbishment during the 1970s that saw the replacement of their rectifiers. The fleet served in their original capacity for roughly twenty years, being mostly withdrawn during the early 1980s following the arrival of newer types such as the British Rail Class 87. Following the final retirement of the Class 82 in 1987, a single example was preserved.

System	25kV 50Hz AC
Length	17.07m
Width	2.67m
Height	3.977m

BR Electric

Introduced	1960
Withdrawn	1987
Wheel Arrangement	Bo-Bo
Builder	Metropolitan-Vickers and Beyer, Peacock & Co. Ltd.
Power	2460kW
Weight	81t
TE	222kN
Max Speed	100mph
Driving Wheel Dia	1.219m
Wheelbase	12.42m

Number			Base	Livery
82008	*E3054*	P	Barrow Hill	ICS

83

Class 83 AL3



Phil Hayward

The British Rail Class 83 electric locomotives were built by English Electric at Vulcan Foundry, Newton-le-Willows as part of the West Coast Main Line electrification. Sole surviving example preserved.

Fifteen locomotives of British Rail Class 83 were built between 1960 and 1962 by English Electric at Vulcan Foundry, as part of British Rail's policy to develop a standard electric

locomotive. Five prototype classes (81-85) were built and evaluated, which eventually led to the development of the Class 86 locomotive.

System	25KV AC OHL
Length	16m
Width	2.657m
Height	3.766m
Introduced	1960
Withdrawn	1989
Wheel Arrangement	Bo-Bo
Builder	English Electric at Vulcan Foundry
Power	2200kW
Weight	77.6t
TE	169kN
Max Speed	100mph
Driving Wheel Dia	1.219m
Wheelbase	12.19m

Number			Base	Livery
83012	*89535, E3035*	P	Barrow Hill	BLU

84

Class 84 AL4



Phil Hayward

The British Rail Class 84 was a 25 kV AC electric locomotive that operated on the West Coast Main Line of the London Midland Region. As part of the modernisation of the West Coast Main Line, which included electrification, 100 locomotives of five types were acquired from different manufacturers.

Ten Class AL4 locomotives numbered E3036 - E3045 were built in 1960 by the North British Locomotive Company in Springburn, Glasgow, to a design by GEC. Sole surviving example now in national collection.

Diagram	L91
System	25kV 50Hz AC
Length	16.32m
Width	2.468m
Height	3.766m
Introduced	1960
Withdrawn	1980
Wheel Arrangement	Bo-Bo
Builder	North British Locomotive Company
Power	660kW
Weight	77.83t
TE	220kN
Max Speed	100mph

BR Electric

Driving Wheel Dia	1.219m
Wheelbase	12.04m

Number			Base	Livery
84001	*89502, E3036*	P	National Railway Museum	BRB

85

Class 85 AL5



Phil Hayward

The British Rail Class 85 (also known by the designation AL5) is an electric locomotive that was designed and produced at British Rail's (BR) Doncaster Works during the early 1960s. While largely developed by BR, much of its systems can be attributed to the British manufacturing interest Associated Electrical Industries (AEI).

The locomotive was developed as a part of the programme of works to electrify the West Coast Main Line during the late 1950s and early 1960s. BR deliberately opted to procure multiple batches of locomotives from a range of manufacturers, leading to the procurement of five prototype classes (Classes 81-85) and subsequently placed a larger order for a refined model of one of these, eventually leading to the development of the Class 86 locomotive.

The Class 85 proved to be a relatively reliable workhorse of the London Midland region, particularly following a refurbishment during the 1970s that saw the replacement of their rectifiers. Some members of the type were in service for thirty years, their withdrawal having commenced during the mid 1980s and lasting into the early 1990s, having been

effectively displaced by the arrival of newer types such as the Class 87 and later Class 90. Following the retirement of the Class 85, a single example was preserved.

System	25kV 50Hz AC
Length	17.22m
Introduced	1961
Withdrawn	1992
Wheel Arrangement	Bo-Bo
Builder	British Railways' Doncaster Works
Power	2400kW
Weight	80.8t
TE	222kN
Max Speed	100mph
Driving Wheel Dia	1.219m

Number	Name			Base	Livery
85006	Doncaster Plant 150 1853-2003	*89561, 85101, E3061*	P	Barrow Hill	BRB

86

Class 86 AL6



Class 86 in Freightliner Livery at Stratford (London)

Neil Thaler

The British Rail Class 86 is the standard electric locomotive built during the 1960s. One hundred of these locomotives were built from 1965 to 1966, either by English Electric at Vulcan Foundry, Newton-le-Willows or British Rail (BR) at their Doncaster works. The class was built to haul trains on the then newly electrified West Coast Main Line (WCML) from

London Euston to Birmingham, Crewe, Liverpool, Manchester and later Glasgow and Preston.

Introduction of the class enabled the replacement of many steam locomotives, which were finally withdrawn by British Rail in 1968. Under the earlier BR classification system, the type was given the designation AL6 (meaning the sixth design of AC locomotive) and locomotives were numbered E3101-E3200. In 1968, this was changed to Class 86 when British Rail introduced the TOPS classification system.

The class was built to haul passenger and freight trains alike on the West Coast Main Line, however some members of the class also saw use on the Great Eastern Main Line (GEML) between London Liverpool Street and Norwich, after that line was also electrified in the mid-1980s. The type has had a generally long and successful career, with some members of the class seeing main line service lives in the UK of up to 55 years. Most regular passenger duties of the class came to end on both the WCML and the GEML in the early-to-mid-2000s, after a career of up to 40 years. Some members of the class remained in use for charter work and for freight work with Freightliner until 2021. A number of the class were exported to Bulgaria and Hungary and remain in use. As of 2022 three Class 86s remain preserved in usable condition in the UK, all in private ownership.

System	25kV 50Hz AC
Length	16.66m
Width	2.648m
Height	3.766m
Introduced	1965
Withdrawn	1995
Wheel Arrangement	Bo-Bo
Weight	82t
TE	267kN
Max Speed	110 mph
Driving Wheel Dia	1.143m
Wheelbase	13.26m
Builder	BREL Doncaster / EE Vulcan Foundry
Power	5000 HP
Brakes	Westinghouse dual vacuum & air
Heating	ETH

Number	Name			Livery
86101	Sir William A Stanier F R S**	*86201, E3191*	P	ICS
86401	Mons Meg, Northampton Town**	*86001, E3199*	P	CAS
E3137	Les Ross, Peter Pan	*86045, 86259*	P	BLU

87

Class 87



Phil Hayward

The British Rail Class 87 is a type of electric locomotive designed and built by British Rail Engineering Limited (BREL) between 1973 and 1975. A total of thirty-six locomotives were constructed, to work passenger and freight services over the West Coast Main Line (WCML).

The type was developed in response to the need to add extra capacity to the electric traction fleet operated by British Rail (BR), in addition to the desire to introduce a higher performance electric locomotive than the existing Class 86, numerous aspects of which being incorporated into its design. The Class 87 fleet was operated as the flagships of British Rail's electric locomotive fleet until the late 1980s, at which point the Class 90, an improved derivative of the Class 87, started to come on stream.

As a consequence of the privatisation of British Rail during the mid 1990s, all but one of the Class 87s were transferred to Virgin Trains. Under this operator, the type continued their passenger duties until the advent of the new Class 390 Pendolinos, after which they were gradually transferred to other operators or withdrawn between 2002 and 2007. For a time, the type was a staple of electrified freight operations, before it was displaced by the Class 90 in this capacity as well. By the end of the 2010s, there was only one Class 87 that remained in an operational condition in Britain, 87002, which had been initially preserved by the AC Locomotive Group and is presently owned by Locomotive Services Limited. It was previously in use with Serco Caledonian Sleeper and is intended for use on charter services. A large proportion of the fleet has been exported to Bulgaria, where they have entered regular use once again.

BR Electric

System	25kV AC
Introduced	1973-75
Wheel Arrangement	Bo-Bo
Builder	BREL Crewe
Power	3730kW
Weight	83.5tonnes
TE	258kN
Max Speed	110mph
Driving Wheel Dia	1.15m
Length	17.83m
Width	2.648m
Height	3.766m
Withdrawn	2007
Wheelbase	13.262m
Brakes	Air
Heating	ETH

Number	Name		Base	Livery
87001	STEPHENSON / Royal Scot	P	National Railway Museum	BRB
87035	Robert Burns	P	Crewe Heritage Centre	VTR

89

Class 89



Phil Hayward

The British Rail Class 89 is a prototype electric locomotive. Only one was built, in 1986, by British Rail Engineering Limited's Crewe Works. It was used on test-trains on both the West Coast and East Coast Main Lines. The locomotive was fitted with advanced power control systems and developed more than 6,000 bhp (4,500 kW). After being withdrawn in 1992, it was returned to service in 1996, before being again withdrawn in 2000.

The Class 89 locomotive was designed by Brush Traction, Loughborough to meet a specification issued by British Rail. BR subsequently changed the requirements of this specification, but not before Brush had committed to building the prototype locomotive.

The locomotive had six DC traction motors. The main armature current for all the motors was fed from a common thyristor drive, with each motor having an independent field current controller. The field current controllers comprised a two quadrant chopper inside a thyristor bridge. The bipolar transistor based choppers provided a fast fine control of motor torque for electric braking and slip control, while the thyristor bridge was used to invert the field current polarity.

System	25kV Ac
Introduced	1986
Wheel Arrangement	Co-Co
Builder	BREL Crewe
Power	4286 kW
Weight	103t

BR Electric

TE	205kN
Max Speed	125mph
Driving Wheel Dia	1.15m
Length	19.79m
Width	2.731m
Height	3.81m
Withdrawn	2000
Wheelbase	15.1m

Number	Name			Note	Base	Livery
89001	Avocet**	*89501*	P	for restoration by HNRL	Locomotive Services, Crewe	ICS

90

Class 90



90001 at Crewe

Dan Cardwell

The British Rail Class 90 electric locomotives were built for mixed-traffic duties, operating from 25 kV AC overhead lines and produce 5,000 bhp (3,700 kW). They weigh 84.5 tonnes and can typically achieve a top speed of 110 mph (177 km/h).

The Class 90 is a modernised derivative of the preceding Class 87 locomotive, having been originally designated as the Class 87/2. During the 1980s, British Rail Engineering Limited (BREL) had submitted an offer to build 25 examples to replace various aging electric locomotives, including the Class 81, Class 82, Class 83, Class 84 and Class 85. It was selected

over numerous rival proposals, including the InterCity 225 and the Class 89; the type was manufactured by BREL at Crewe Works between 1987 and 1990.

The Class 90 was introduced to service during the closing years of British Rail, being used for both passenger services and freight trains alike. Following the privatisation of British Rail, the type has served with various operators, including Greater Anglia, Virgin Trains and Great North Eastern Railway (GNER); it was, however, displaced largely from regular passenger services during the 2000s and 2010s. Presently, Class 90 locomotives are usually employed on heavy freight trains and occasional charter services.

System	25kV AC
Length	18.8m
Width	2.74m
Introduced	1987-90
Builder	BREL Crewe
Power	5860kW
Weight	84.5 tonnes
TE	258kN
Max Speed	110 mph
Driving Wheel Dia	1.15m
Height	3.969m
Wheel Arrangement	Bo-Bo
Wheelbase	13.26m

Number	Name			Note	Base	Livery
90001	Crown Point**, Royal Scot				Locomotive Services, Crewe	ICS
90002	Eastern Daily Press 1870-2010 SERVING NORFOLK FOR 140 YEARS**, Wolf of Badenoch				Locomotive Services, Crewe	ICS
90026	Crewe International Electric Maintenance Depot**	*90126*			Locomotive Services, Crewe	BLK
90150		*90050*	D	Cosmetic restoration	Crewe Heritage Centre	FLF

91

Class 91 Electra



Dan Cardwell

The British Rail Class 91 is a high-speed electric locomotive, which produces power of 4,830 kW (6,480 hp); it was ordered as a component of the East Coast Main Line modernisation and electrification programme of the late 1980s.

The Class 91s were given the auxiliary name of InterCity 225 to indicate their envisaged top speed of 225 km/h, they were also referred to as Electras by British Rail during their development and throughout the electrification of the East Coast Main Line.

The other end of the InterCity 225 train set is formed of a Mark 4 Driving Van Trailer, built with a similar body shell to the Class 91 locomotives but with only one driving cab. The locomotive body shells are of all-steel construction. Unusually, the motors are body mounted and drive bogie-mounted gearboxes via cardan shafts; this reduces the unsprung mass and hence track wear at high speeds. The locomotive also features an underslung transformer; therefore, the body is relatively empty compared to contemporary electric locomotives. Much of the engineering specification for the locomotive was derived from the research and operational experience of the APT-P.

31 were built in total. Some locos are still in use; however, several have already been scrapped, many more have been placed in store. Upon retirement, 91110, 91111, and 91131 will be preserved as part of the National Collection, having all been nominated by the Railway Heritage Committee. In June 2021, the '225 Group' was launched; a preservation initiative with the intention of preserving a further Class 91 and an Intercity 225 set. In September 2022, Crewe Heritage Centre received 91120 on long-term loan from Europheonix.

System	25 kV 50 Hz AC Overhead

BR Electric

Length	19.4m
Width	2.74m
Height	3.757m
Introduced	1988
Wheel Arrangement	Bo-Bo
Builder	BREL Crewe
Power	4830kW
Weight	81.5t
TE	190kN
Max Speed	140mph

Number	Name			Base	Livery
91117	Project Electra, WEST RIDING LIMITED**	*91017*	S	Barrow Hill	EPX
91120	Royal Armouries**	*91020*	D	Crewe Heritage Centre	ICS
91131	County of Northumberland**	*91031*	P	Bo'ness & Kinneil Railway	LNER

BR Multiple Units

100

Class 100 Gloucester DMU



56301 at County School Station

Dan Cardwell

The British Rail Class 100 diesel multiple units were built by Gloucester Railway Carriage and Wagon Company Limited from 1956 to 1958, designed and built in collaboration with the Transport Sales Dept. of T.I. (Group Services) Ltd.

The class were designed to be lightweight to allow for good acceleration. None were selected for refurbishment and withdrawals started in 1969. The last passenger car was withdrawn from service in 1988.

Each unit consisted of 1 DMBS and 1 DTCL. Under initial classification 1973, the DTCLs became class 143 but were later reclassified as class 100.

Builder	Gloucester RCW
Max Speed	70mph
Introduced	1957
Length	17.53m
Width	2.82m
Height	3.87m
Withdrawn	1988
Engine	Two 150bhp BUT 6-cylinder diesel engines

Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
50341		X	DMBS		
51118	*53118*	R	DMBS	Midland Railway - Butterley	GRN
56097		R	DTCL	Midland Railway - Butterley	GRN
56099		X	DTCL		
56317		X	DTCL		
E56301	*56301*	D	DTCL	Mid Norfolk Railway	GRN

101

Class 101 Metro-Cammell DMU



The British Rail Classes 101 and 102 diesel mechanical multiple units were built by Metro-Cammell at Washwood Heath in Birmingham, England from 1956 to 1959, following construction of a series of prototype units. These classes proved to be some of the most successful and longest-lived of BR's First Generation DMUs.

The 101s came in two, three or four car units, with two driving carriages one or two of which were powered by 11.3 litre BUT six cylinder diesel engines with epicyclic gearboxes. Being a first generation DMU, they were a prime example of a slam door train. They had a top speed of 70 mph.

The 101 DMU fleet was vast with 527 101s and 106 of the related Class 102s being built. In all, 760 individual vehicles were built in total. When TOPS was originally introduced only the Driving Motor Brake Second (DMBS) and the Driving Motor Composite (with Lavatory)

(DMCL) were classified as Class 101 (AEC engines) or Class 102 (Leyland engines). The Driving Trailer Composite (with Lavatory) (DTCL) were either Class 144 or Class 147. The Trailer Seconds (with Lavatory) (TSL) were Class 162, the Trailer Brake Second (with Lavatory) (TBSL) were Class 168 and the Trailer Composite (with Lavatory) (TCL) were Class 171. Later all the cars were reclassified, becoming Class 101.

The Class 111 was a variant of the 101, having more powerful Rolls-Royce engines.

Builder	Metro-Cammell
Max Speed	70mph
Introduced	1956
Engine	AEC / Leyland
Length	17.37m
Width	2.82m
Height	3.77m
Withdrawn	2003
Transmission	Mechanical: 4-speed epicyclic gearbox

Number	Name		Form	Note	Livery
50160 [1]	Daisy	*53160, 101685*	P	DMC(L), DMCL	GRN
50164 [2]	Daisy	*53164, 101685*	P	DMBS	GRN
50170 [3]		*53170, 101692*	P	DMC(L), DMCL	GRN
50193 [4]		*53193, 960992, 977898, R002*	S	DMC(L), DMCL (sheeted at Rothley)	BLG
50204 [5]		*53204, 101680*	S	DMBS	GRN
50211 [6]		*53211*	R	DMBS	GRN
50253 [7]		*53253, 101692*	A	DMBS	GRN
50256 [8]		*53256*	S	DMBS	BRB
50268		*53268*	X	DMC(L), DMCL	
50746 [9]		*53746, 101678*	R	DMC(L), DMCL	BLG
51187 [10]			S	DMBS	GRN
51189 [11]			A	DMBS	BLU
51192 [12]		*M51192*	R	DMBS	GRN
51205 [13]			A	DMBS	GRN
51210 [14]		*101678*	R	DMBS	BRB
51213 [15]			A	DMBS	BLG
51226 [16]		*101695*	A	DMBS	GRN
51247			X	DMBS	

51434 [17]	MATTHEW SMITH 1947-2002	*L836*	O	DMBS	BLG
51499 [18]		*101695*	A	DMC(L), DMCL	GRN
51503 [19]		*L836*	A	DMC(L), DMCL	BLG
51505 [20]		*101682*	A	DMC(L), DMCL	BRB
51511 [21]		*101680*	P	DMC(L), DMCL	GRN
51512 [22]			O	DMC(L), DMCL	
51803 [23]			A	DMC(L), DMCL	BLU
54408 [24]		*56408*	A	DTC(L), DTCL in use as loco hauled stock, Originally class 144	GRN
56055 [25]		*54055*	A	DTC(L), DTCL, Originally class 144	GRN
56342 [26]		*54342, 42222*	O	DTC(L), DTCL, Originally class 144 (DMU Bar car)	BLG
56343 [27]		*54343, E56343*	S	DTC(L), DTCL, Originally class 144	BRB
56347 [28]		*54347*	O	DTC(L), DTCL, Originally class 144	GRN
56352 [29]		*54352*	A	DTC(L), DTCL, Originally class 144	GRN
56356 [30]	HEBRIDEAN	*54356, 6300*	R	DTC(L), DTCL, Originally class 144	
56358 [31]		*54358*	A	DTC(L), DTCL, Originally class 144	BRB
56365		*54365*	X	DTC(L), DTCL, Originally class 144	

59117 [32]		*L836*	A		TC(L), TCL, Originally class 171	BLG
59303 [33]		*101692*	A		TS(L), TSL, Originally class 162	GRN
59539 [34]		*101685*	A		TC(L), TCL, Originally class 171	GRN
977693 [35]	Iris II	*53222, 50222*	P	901002	DMBS	GRN
977694 [36]	Iris II	*53338, 50338*	P	901002	DMC(L), DMCL	GRN
E50266 [37]		*53266, 50266*	A		DMC(L), DMCL (Blue DMU Set)	BRB
E51228 [38]		*51228*	R		DMBS	GRN
E51427 [39]		*51427, 977899*	A		DMBS (Green DMU Set)	GRN
M50203 [40]		*53203, 960992, 977897, 50203*	A		DMBS (Blue DMU Set)	BRB
M50321 [41]		*53321, 977900, 50321*	A		DMC(L), DMCL (Green DMU Set)	GRN
M51188 [42]		*51188*	A		DMBS	BRB

Notes
1: North Yorkshire Moors Railway
2: Barrow Hill
3: Severn Valley Railway
4: Great Central Railway
5: Battlefield Line
6: Denbigh & Mold Junction Railway
7: Severn Valley Railway
8: Wensleydale Railway
9: Wensleydale Railway
10: Cambrian Railway Trust, Llynclys
11: Keighley & Worth Valley Railway
12: North Norfolk Railway
13: Cambrian Heritage Railway, Oswestry
14: Wensleydale Railway
15: East Anglian Railway Museum
16: Mid Norfolk Railway
17: Mid Norfolk Railway
18: Mid Norfolk Railway
19: Mid Norfolk Railway

20: North Norfolk Railway
21: Battlefield Line
22: Cambrian Heritage Railway, Oswestry
23: Keighley & Worth Valley Railway
24: Lavender Line
25: Cambrian Railway Trust, Llynclys
26: Great Central Railway
27: Wensleydale Railway
28: Mid Norfolk Railway
29: North Norfolk Railway
30: Locomotive Services, Crewe
31: East Anglian Railway Museum
32: Mid Norfolk Railway
33: Severn Valley Railway
34: North Yorkshire Moors Railway
35: Plym Valley Railway
36: Plym Valley Railway
37: Great Central Railway
38: North Norfolk Railway
39: Great Central Railway
40: Great Central Railway
41: Great Central Railway
42: North Norfolk Railway

Metro-Cammell Lightweight

Metro Cammell Lightweight DMU's



Former 56062 at NNR in 2021

Dan Cardwell

In 1955, Metropolitan Cammell produced its first lightweight diesel multiple units, the prototypes of what were to become British Rail's most successful and longest-lived First Generation DMU type, the Class 101.

None survived, however in 2024 class 101 DTCL number 56062 was cosmetically converted to represent one of the lost "yellow diamond" Met-Camm lightweight sets. This involved fitting of a lower bufferbeam steel valance, false waist height jumper cable sockets below the cab windows and modified battery box covers. At this point, the vehicle's identity was changed to 79263.

It is planned for class 101 DMBS 51228 to undergo a similar cosmetic conversion whilst out of traffic for bodywork overhaul. This will produce a matching 2-car set.

Length	17.37m
Width	2.82m
Height	3.77m
Introduced	1955 (original) 2024 (conversions)
Withdrawn	1969
Builder	Metro-Cammell
Engine	AEC 150hp
Transmission	Mechanical
Max Speed	70mph

Number			Note	Base	Livery
79263	*56062, E56062, 54062, E56062*	A	DTC(L), DTCL, Originally class 144 Rebuilt as Metro-Cammel Lightweight in 2024	North Norfolk Railway	GRN

103

Class 103 Park Royal DMU

The British Rail Class 103 diesel multiple units were built by Park Royal Vehicles with diesel engines by British United Traction (BUT). Ordered in the first half of 1955, 20 of these sets were built by Park Royal at the Crossley Motors works in Stockport of the ACV Group. They consisted of a power car and a driving trailer. Standard BUT equipment was fitted, with 'A' type engines.

A two-car set with 16 first class and 100 second class seats weighed just under 60 long tons, representing 1,150 lb (520 kg) a seat and had 5 hp per ton of empty weight or 4.35 hp per ton when full.

Builder	Park Royal
Max Speed	70mph
Introduced	1957
Engine	BUT (AEC)

Length	17.53m
Width	2.82m
Withdrawn	1983
Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
50397	*56397*	X	DMBS, Scrapped at Swansea, Sep 2009		
50413	*56413*	D	DMBS Static buffet	Helston Railway	GRN
56160	*DB975228, 975228*	R	DTCL	Denbigh & Mold Junction Railway	
56169		D	DTCL	Helston Railway	GRN

104

Class 104 Birmingham RCW DMU



The British Rail Class 104 diesel multiple units were built by Birmingham Railway Carriage and Wagon Company from 1957 to 1959. A product of British Rail's Modernisation Plan of 1954, the 104s were designed for general branch line and commuter routes.

The first units ordered were for the London Midland Region, with the majority of the class for use in North West of England. The Class 110 was a re-engineered version of the 104 with more powerful engines, but did not last as long in service. The 104s had asbestos insulation removed during the 1970s.

Builder	Birmingham RCW
Max Speed	70mph
Introduced	1957

Engine	BUT (Leyland)
Length	17.53m
Width	2.82m
Withdrawn	1995
Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
50437	*53437*	S	DMBS	East Lancashire Railway	NSE
50455	*53455*	A	DMBS	East Lancashire Railway	BRB
50479	*53479*	A	DMBS	North Norfolk Railway	GRN
50494	*53494*	S	DMCL	East Lancashire Railway	BRB
50517	*53517*	A	DMCL	East Lancashire Railway	BRB
50528	*53528*	O	DMCL	Great Central Railway	BRB
50531	*53531*	S	DMCL	East Lancashire Railway	GRN
50556	*53556*	X	DMCL		
59137		S	TCL	East Lancashire Railway	GRN
59228		S	TBSL	East Lancashire Railway	BRB
M50454	*53454, 50454*	O	DMBS	Great Central Railway	BRB
M53447	*53447, 50447*	X	DMBS		GRN
M56182	*56182, 54182, 977554*	R	DTCL	North Norfolk Railway	BRB

105

Class 105 Cravens DMU

The British Rail Classes 105 and 106 diesel multiple units were built by Cravens Ltd. of Sheffield from 1956 to 1959. The class were built with a side profile identical to British Railways Mark 1 carriage stock, using the same doors and windows. None were selected for refurbishment. The last passenger car was withdrawn from service in 1988.

The Class 105 DMUs were used chiefly on Eastern Region services around Hull, Lincolnshire, East Anglia and local services to/from London King's Cross. Units initially designated to work on the former Midland and Great Northern Joint Railway lines were moved to services

from London King's Cross upon the closure of the M&GN joint lines in 1959. Units were also used on the London Midland Region and in Scotland, particularly in Aberdeenshire. The closure of many of these lines in the 1960s resulted in their dispersal throughout Great Britain, notably to Tyseley depot near Birmingham.

Norwich was the last depot to operate the Cravens units, with set 30 being returned to green livery, and gaining some celebrity status towards the end of its service life. The unit was, however, contaminated with asbestos and consequently scrapped.

Due to the use of asbestos in their construction, and extended usage by BR, the class has fared very badly in preservation. 51485 and 56121 were preserved by the West Somerset Railway but moved to the East Lancashire Railway in 1997 where they have been restored after asbestos stripping. 56456 is based on the Llangollen Railway, working initially with a Class 127. The National Railway Museum had intended to preserve 53812 - which had been stripped of asbestos but a lack of space prevented this car and the Class 100 coupled to it from being moved to York and they were vandalised beyond repair at Crewe.

Builder	Cravens
Max Speed	70mph
Introduced	1956
Engine	BUT (AEC/Leyland)
Length	17.53m
Width	2.82m
Height	3.84m
Withdrawn	1988
Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
51485		P	DMBS	East Lancashire Railway	GRN
56121		P	DTCL	East Lancashire Railway	GRN
56456	*54456*	R	DTCL	Llangollen Railway	GRN

107

Class 107 Derby Heavyweight DMU



Sc52031 + Sc52005 at Ruddington Fields 22/2/2025

Dan Cardwell

The British Rail Class 107 diesel multiple units were built by the Derby Works of British Railways and were introduced in 1960. The class looked similar to the later Class 108 units but were heavier - having been built out of steel.

The Class 107s were initially built for suburban workings on the south side of Glasgow and the Class remained in BR's Scottish Region for its service life. When new, a number were used for Dundee/Arbroath services. In later years, they were used almost exclusively on services radiating from Glasgow Central to such destinations as Barrhead, East Kilbride, and Kilmacolm, and - prior to electrification - on Glasgow/Ayrshire services (especially Largs). Most were withdrawn from service by 1991.

Many of the units went into departmental use after being withdrawn from passenger use. The class suffered from a structural problem, however, which could result in the bodies separating from the chassis under heavy braking.

Builder	BR Derby
Max Speed	70mph
Introduced	1960
Engine	BUT(AEC)
Length	17.70m
Width	2.82m
Height	3.76m
Withdrawn	1991
Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
51990	*977830, 107730*	S	DMBS	Strathspey Railway	FSP
51993	*977834*	R	DMBS	Nemesis Rail, Burton-on-Trent	GRN
52005	*977832, 107744*	A	DMBS	Great Central Railway (Nottingham) Ltd	GRN
52008	*107747*	R	DMBS	Keith & Dufftown Railway	GRN
52012	*977835*	R	DMC(L), DMCL	Nemesis Rail, Burton-on-Trent	UUU
52025	*977833, SC52025*	A	DMC(L), DMCL	Somerset & Dorset Railway	GRN
52029	*SC52029*	S	DMC(L), DMCL	Fife Heritage Railway	FSP
52030	*977831, 960932*	R	DMC(L), DMBS	Keith & Dufftown Railway	GRN
52031		A	DMC(L), DMCL	Great Central Railway (Nottingham) Ltd	GRN
59791	*SC59791*	S	TS(L), TSL	Nemesis Rail, Burton-on-Trent	GRN
SC52006	*52006, 107745*	A	DMBS	Somerset & Dorset Railway	GRN

108

Class 108 Derby Lightweight DMU



The British Rail Class 108 diesel multiple units were built by BR Derby from 1958 to 1961, with a final production quantity of 333 vehicles.

The 108 was formed as a 2, 3, or 4 car unit. Its aluminium body led the type to be classed a lightweight unit. These units stayed in regular service until 1990, when they began to be withdrawn from traffic. They were replaced on regional services by the new Sprinter derivative units, or by Turbo units on services around London. The final units lasted in traffic until October 1993, although many saw further use in departmental service, as sandite or route-learner units. Good condition on withdrawal and lack of asbestos has ensured that many of this class are now used on preserved railway lines.

Builder	BR Derby
Max Speed	70mph
Introduced	1958
Engine	BUT (Leyland)
Length	17.70m
Width	2.82m
Height	3.76m
Withdrawn	1993
Transmission	Mechanical: 4-speed epicyclic gearbox

Number			Note	Base	Livery
50599	*53599, E53599*	A	DMBS	Ecclesbourne Valley Railway	BLG

50627	*53627, 977853*	X	DMBS		
50628	*53628*	A	DMBS	Keith & Dufftown Railway	GRN
50632	*53632*	X	DMC(L)		
50645	*53645*	R	DMC(L), DMCL	Great Central Railway (Nottingham) Ltd	BLG
50926	*53926, 977814*	R	DMBS	Great Central Railway (Nottingham) Ltd	BLG
50928	*53928*	S	DMBS	Keighley & Worth Valley Railway	GRN
50971	*53971*	A	DMBS	Kent & East Sussex Railway	GRN
50980	*53980*	A	DMBS	Weardale Railway	GRN
51562	*M51562*	R	DMC(L), DMCL	Barrow Hill	BRB
51565		O	DMC(L), DMCL	Keighley & Worth Valley Railway	GRN
51567	*977854*	S	DMC(L), DMCL	Ecclesbourne Valley Railway	BLG
51568		A	DMC(L), DMCL	Keith & Dufftown Railway	GRN
51571		A	DMC(L), DMCL	Kent & East Sussex Railway	GRN
51572		S	DMC(L), DMCL	Weardale Railway	GRN
51907		A	DMBS	Midland Railway - Butterley	BLG
51909		A	DMBS	East Somerset Railway	GRN
51914	*M51914*	A	DMBS	Dean Forest Railway	GRN
51919		A	DMBS	Garw Valley Railway	BRB
51922		R	DMBS	Barrow Hill	GRN
51933		A	DMBS	Llangollen Railway	GRN
51935		X	DMBS		
51937	*977806*	R	DMBS	Poulton & Wyre Railway	
51941		A	DMBS	Severn Valley Railway	GRN
51942		S	DMBS	Mid Norfolk Railway	NSE
51947		S	DMBS Spares donor - Grounded body	East Somerset Railway	BLG
52044		X	DMC(L), DMCL		
52048		A	DMC(L), DMCL	Garw Valley Railway	BRB

52053	*977807*	A	DMC(L), DMCL	Keith & Dufftown Railway	GRN
52054	*M52054*	O	DMC(L), DMCL	Weardale Railway	GRN
52064		A	DMC(L), DMCL	Severn Valley Railway	GRN
53933	*50933*	A	DMBS	Severn Valley Railway	GRN
56207	*54207*	A	DTC(L), DTCL	Appleby-Frodingham RPS	CAR
56208	*54208*	A	DTC(L), DTCL	Severn Valley Railway	BLG
56224 [1]	*54224*	A	DTC(L), DTCL	Keith & Dufftown Railway	GRN
56270	*54270*	R	DTC(L), DTCL	West Somerset Railway	BLG
56271	*54271*	A	DTC(L), DTCL	East Somerset Railway	GRN
56274	*54274*	R	DTC(L), DTCL	Wensleydale Railway	CAR
56279	*54279*	A	DTC(L), DTCL hauled stock		GRN
56484	*54484*	P	DTC(L), DTCL	Poulton & Wyre Railway	BLG
56490	*54490*	A	DTC(L), DTCL	Midland Railway - Butterley	BLG
56491	*54491*	A	DTC(L), DTCL	Keith & Dufftown Railway	GRN
56492	*54492, M56492*	A	DTC(L), DTCL	Dean Forest Railway	GRN
56495	*54495*	D	DTC(L), DTCL	Kirklees Light Railway	
59245		A	TBS(L), TBSL	Appleby-Frodingham RPS	CAR
59250		A	TBS(L), TBSL	Severn Valley Railway	GRN
59387	*E59387*	A	TS(L), TSL	Dean Forest Railway	GRN
E50619	*53619, 50619*	A	DMBS	Dean Forest Railway	GRN
M51566	*51566*	A	DMC(L), DMCL	Dean Forest Railway	GRN
M51950	*51950*	A	DMBS	Peak Rail	CHC
M52062	*52062*	A	DMC(L), DMCL	Peak Rail	CHC
M54504	*54504, 56504*	A	DTC(L), DTCL	Llangollen Railway	GRN
M56223	*54223, 56223*	A	DTC(L), DTCL	Llangollen Railway	GRN

Notes

1: Name: Spirit of Speyside

109

Class 109 Wickham DMU

The British Rail Class 109 is a class of 2-car diesel multiple units built in 1957 by D Wickham & Co. Five two-car units were built featuring an unusual body design. The design, first used in 1936 for South American railways, aimed to minimise weight. It had no underframe, but the whole body was formed into a welded stress-bearing box girder made of 1⁄8 inch (3.2 mm) solid drawn steel tube. Aluminium was used for panels, luggage racks, window frames, vacuum pipes and fuel and vacuum tanks. The corrugated steel floor was filled with sprayed asbestos and covered with asbestos-filled flame-proofed hardboard and rubber sheet.

The units soon became non-standard and two were sold back to the manufacturer who exported them to Trinidad and Tobago. Another unit was converted into departmental service and survived in BR ownership until the early 1980s. This unit has been preserved.

Length	17.37m
Width	2.51m
Height	3.77m
Introduced	1957
Withdrawn	1971
Wheel Arrangement	1A'A1'+2'2'
Builder	D Wickham
Power	110kW
Engine	2 x British United Traction Leyland
Transmission	fluid coupling and air operated 4-speed epicyclic gear box
Max Speed	70mph

Number			Note	Base	Livery
E50416	*DB975005, 50416*	A	DMBS	Llangollen Railway	GRN
E56171	*DB975006, 56171*	A	DTCL	Llangollen Railway	GRN

110

Class 110 BRCW Calder Valley DMU

The Class 110 diesel multiple units were built by the Birmingham Railway Carriage and Wagon Company in conjunction with the Drewry Car Co. to operate services on the former Lancashire and Yorkshire main line. They originally entered service uniquely in this region, which earned them the name of the 'Calder Valley' sets. They were an updated version of

the Class 104, with more powerful engines, a revised cab design and raised bodyside window frames.

The fact that they were primarily intended for services on the arduous Calder Valley route meant that Class 110 needed more power than other first generation DMUs, so they were fitted with 180 hp (130 kW) Rolls-Royce C6NFLH engines, and when delivered they had the highest hp/ton of any of the first generation DMUs, including the lightweights. With a set weighing 87½ tons (tare), this gave a power-to-weight ratio of 8.3 hp / ton, which was appreciably higher than any other DMU in use at the time using normally aspirated engines.

Five vehicles have been preserved.

Builder	Birmingham RCW
Max Speed	70mph
Introduced	1961
Engine	Rolls-Royce
Length	17.53m
Width	2.82m
Height	3.89m
Withdrawn	1991
Transmission	4-speed epicyclic gearbox

Number		Note	Base	Livery
51813	A	DMBC	Llangollen Railway	GRN
51842	A	DMCL	Llangollen Railway	GRN
52071	A	DMBC	Lakeside & Haverthwaite Railway	GRN
52077	A	DMCL	Lakeside & Haverthwaite Railway	GRN
59701	A	TSL	Llangollen Railway	GRN

111

Class 111 Metro-Cammell DMU



Dan Cardwell

The Class 111 DMUs were based on Class 101/2s, but with different engines. The only external body difference was on the final batch of cars where a four-character headcode box was fitted above the front cab windows, with the destination indicator on top of a reduced height centre window.

The first cars built, part of an order for 339 Metro-Camm cars, were 4 power/trailer sets for the LMR Manchester area built in early 1957. One of these was equipped with supercharged Rolls-Royce C6SFLH 230 hp 6-cylinder engines. This was followed by ten 3-car sets comprising DMBS/TSL/DMCL for the NER at Bradford, then a further twenty 3-car sets. The type lasted in service until 1989 when the class was withdrawn.

One car survives, buffet 59575 currently operational at the Great Central Railway. It operates as the centre car between two Class 101 power cars.

Length	17.37m
Width	2.82m
Height	3.76m
Introduced	1957
Withdrawn	1989
Builder	Metropolitan-Cammell
Max Speed	70mph

Number	Note	Base	Livery

E59575	*59575*	A	TSBL, TSB(L), TRSBL, originally class 165 (Green DMU Set)	Great Central Railway	GRN

114

Class 114 Derby Heavyweight Twin DMU



Dan Cardwell

The British Rail Class 114 diesel multiple units were built by BR Derby from September 1956 to July 1957. Forty-nine 2-car units were built, numbered E50001-49 for driving motors (later renumbered 53001-49) and E56001-49 for driving trailers (later renumbered 54001-49).

The vehicles were the first type to be built at Derby with the longer 63 1/2ft underframe, and the first Derby vehicles to be built from steel. This design would be re-used in the 116 and 117. The type was classed a heavyweight unit; with their original 150 hp BUT engines, they were found to be underpowered for the local scheduled services, and lost time especially when towing a van (which was a regular occurrence in that area). The most problematic stretch was the 1 in 122 for just under a mile near Ancaster which reduced these units to 45 mph even on full power. As a result of this, several 3-car formations were put together using two power cars and one trailer. The type was re-engined with Leyland Albion 230bhp motors.

Builder	BR Derby
Introduced	1956
Engine	Leyland Albion
Length	19.66m
Width	2.82m

Height	3.77m
Withdrawn	2002
Max Speed	70mph

Number			Note	Base	Livery
56015	*54015, 54904, 977776*	A	DTCL	Midland Railway - Butterley	BRB
56047	*54047*	S	DTCL	Swindon and Cricklade Railway	GRN
E50015	*53015, 55929, 977775, 50015*	A	DMBS	Midland Railway - Butterley	BRB
E50019	*53019, 50019*	R	DMBS	Midland Railway - Butterley	GRN
E56006	*54006, 56006*	R	DTCL	Midland Railway - Butterley	GRN

115

Class 115 Derby Suburban DMU



The British Rail Class 115 diesel multiple units were 41 high-density sets which operated the outer-suburban services from Marylebone usually to destinations such as High Wycombe, Aylesbury and Banbury which are on the Chiltern Main Line and Great Central Main Line (now the London to Aylesbury Line). Sometimes, these sets used to operate 8- or 12-car-long expresses to Nottingham Victoria in the final years of the GCML. Coincidentally, Class 115 units operated services under Table 115 in the British Rail timetable.

Based on the basic Derby high density design, the sets are similar to Class 127 but were internally superior as the class had larger windows, better furnishings, lighting and wall surfaces.

15 vehicles are preserved. DMBS 51677 was scrapped in early 2017.

Builder	BR Derby
Introduced	1960
Engine	Leyland Albion
Length	19.35
Width	2.82m
Withdrawn	1998
Weight	137t
Max Speed	70mph

Number			Note	Base	Livery
51655		S	DMBS May be scrapped	Roysth Docks	GRN
51669		S	DMBS	Midland Railway - Butterley	GRN
51677		X	DMBS		
51849		S	DMBS spares donor	Midland Railway - Butterley	GRN
51852		X	DMBS		
51859		A	DMBS	West Somerset Railway	GRN
51880		A	DMBS	West Somerset Railway	GRN
51886		S	DMBS	Rushden Transport Museum	GRN
51887		R	DMBS	West Somerset Railway	
51899 [1]		S	DMBS	Llangollen Railway	GRN
59659	*M59659*	R	TS	Midland Railway - Butterley	GRN
59664		R	TCL	Old Station, Talybont on Usk, Powys	GRN
59678		A	TCL	West Somerset Railway	GRN
59719		S	TCL, no number carried as of 7/21	Dartmouth Steam Railway	GRN
59761		S	TCL	Buckinghamshire Railway Centre	GRN
W59740	*59740*	D	TS static buffet	South Devon Railway	

Notes

1: Name: Aylesbury College SILVER JUBILEE 1987

116

Class 116 Derby Suburban 3-car DMU



51131 at Battlefield Line

Dan Cardwell

The British Rail Class 116 diesel multiple units were built by BR Derby from 1957 to 1961. BR ordered the type in large numbers but Derby Works could not keep up with demand, with 108 three-car sets being built in all. Variants of the type, British Rail Class 117 and British Rail Class 118 were built by Pressed Steel and the BRC&W respectively under licence.

These units were originally ordered for use on suburban and local services in the Birmingham area, but many found their way to other areas such as South Wales. The type was powered by twin BUT 11.3-litre six-cylinder diesel engines, each producing 150 bhp with mechanical transmission. The type came in two or three car formations; in a three-car set, the trailer (centre carriage) was unpowered. Built of an all steel construction, the 116 and its variants were classed as heavyweight DMUs but were capable of speeds of 70 mph (110 km/h).

Like other BR Derby output, the type underwent testing on the Ecclesbourne Valley Railway which had been closed to passenger trains by the mid 1950s.

The class were similar in design to the Class 114, sharing the same heavyweight steel chassis but were fitted out as high-density sets, built for short-distance, high-capacity services, and so were built without gangways or toilets, although gangways were later fitted on some units.

Builder	BR Derby
Introduced	1957
Engine	Leyland
Length	19.51m
Width	2.82m

Height	3.77m
Withdrawn	1995
Power	112kW
Max Speed	70mph

Number	Name			Note	Base	Livery
51134			X	DMBS		
51135			X	DMBS		
51138		*977921*	O	DMBS	Great Central Railway (Nottingham) Ltd	GRN
51147			X	DMS, DMBS		
51148			X	DMS, DMBS		
51151			S	DMS	Great Central Railway (Nottingham) Ltd	GRN
59003	Lily, Zoe**		A	TC, TS in use as hauled stock	Bodmin & Wenford Railway	CHC
59004	Emma		A	TC, TS in use as hauled stock	Dartmouth Steam Railway	CHC
59444			A	TC	Chasewater Railway	MAR
59445			X	TC		
M51131		*51131*	A	DMBS	Battlefield Line	BLG

117

Class 117 Pressed Steel Suburban 3-Car DMU



The British Rail Class 117 diesel multiple units (DMUs) were built by Pressed Steel from 1959 to 1961. It was a licence-built variant of the British Rail Class 116.

A total of 123 Class 117's were built by Pressed Steel between 1959 and 1961. The Class 116 was ordered in large numbers which Derby Works could not fulfil, so the work was sub contracted. When first introduced in 1960, these three-car units were all based with the similar Class 121 single carriage (railcar) units on British Railways Western Region for suburban work out of London Paddington. The units were largely based at Reading and Southall depots. The units remained here for many years working these services.

Builder	Pressed Steel
Introduced	1960
Engine	Leyland
Length	19.51m
Width	2.82m
Height	3.87m
Withdrawn	2015
Max Speed	70mph

Number			Note	Base	Livery
51339	*W51339*	A	DMBS	Colne Valley Railway	GRN
51341		X	DMBS		
51342		R	DMBS	Epping & Ongar Railway	
51346		X	DMBS		
51347		A	DMBS	Gwili Railway	GRN

51351		R	DMBS	Pontypool & Blaenavon Railway	UUU
51352		A	DMBS	South Devon Railway	YEL
51353	*117301*	D	DMBS - in static use by community group	Wensleydale Railway	GRY
51354		P	DMBS	West Somerset Railway	GRN
51356		R	DMBS	Swanage Railway	GRN
51359		X	DMBS		
51360	*W51360*	A	DMBS	Gloucestershire Warwickshire Steam Railway	BRB
51363	*W51363*	A	DMBS	Bo'ness & Kinneil Railway	GRN
51365		R	DMBS	Plym Valley Railway	GRN
51367		A	DMBS	Strathspey Railway	GRN
51370	*W51370*	P	DMBS	Mid Norfolk Railway	GRN
51371	*W51371, 977987, 960301*	R	DMBS	Arlington Fleet Services - Eastleigh Works	UUU
51372	*W51372*	S	DMBS for spares	Bo'ness & Kinneil Railway	BRB
51375	*977992, 960301*	S	DMS	Chinnor & Princes Risborough Railway	GRN
51376		S	DMS	South Devon Railway	GRN
51381		A	DMS	Mangapps Railway Museum	GRN
51382	*W51382*	A	DMS	Colne Valley Railway	GRN
51384		A	DMS	Epping & Ongar Railway	GRN
51388		P	DMS	Swanage Railway	GRN
51392	*117701*	S	DMS - spares donor	Swanage Railway	NSE
51395		X	DMS		
51396	*L720*	P	DMS (NSE DMU)	Great Central Railway	NSE
51397		S	DMS	Pontypool & Blaenavon Railway	GRN
51398		X	DMS		
51400		X	DMS		BRB
51401		A	DMS	Gwili Railway	GRN
51402		A	DMS	Strathspey Railway	GRN
51405	*W51405*	A	DMS	Bo'ness & Kinneil Railway	GRN
51407		S	DMS	Plym Valley Railway	GRN
51412		R	DMS	Mid Norfolk Railway	GRN

51413	*977988, W51413, 960301*	S	DMS	Arlington Fleet Services - Eastleigh Works	GRN
59486		P	TCL	Swanage Railway	GRN
59488		D	TCL In use as visitor centre	Dartmouth Steam Railway	
59490		X	TCL		
59492		S	TCL	Arlington Fleet Services - Eastleigh Works	RRR
59493	*W59493*	S	TCL	South Devon Railway	GRN
59494		A	TS Ex TCL	Dartmouth Steam Railway	CHC
59496		X	TCL		
59500		S	TCL	Nemesis Rail, Burton-on-Trent	GRN
59501		S	TCL	Great Central Railway (Nottingham) Ltd	GRN
59503 [1]		A	TS ex TCL	Dartmouth Steam Railway	CHC
59505		R	TCL	Gloucestershire Warwickshire Steam Railway	CHC
59507 [2]		A	TSL ex TCL	Plym Valley Railway	CHC
59508		A	TCL	Gwili Railway	GRN
59509		A	TCL	Wensleydale Railway	BLG
59510	*W59510*	A	TCL	Bo'ness & Kinneil Railway	GRN
59511		R	TCL	Strathspey Railway	
59514		R	TCL	Swindon and Cricklade Railway	GRN
59515		A	TCL	South Devon Railway	
59516		X			
59517		A	TSL ex TCL	Dartmouth Steam Railway	CHC
59520		A	TCL	Mid Norfolk Railway	GRN
59521		R	TCL	Helston Railway	
59522		X	TCL		
W59313 [3]	*59513*	A	TSL ex TCL	Dartmouth Steam Railway	CHC
W59506	*59506*	P	TCL (Blue DMU Set)	Great Central Railway	BRB

Notes
1: Name: Nina
2: Name: Anna
3: Name: Heidi

118

Class 118 BRCW Suburban 3-Car DMU

The British Rail Class 118 diesel multiple units were built by the Birmingham Railway Carriage & Wagon Company (BRCW) and introduced from 1960. It was a licence-built version of the British Rail Class 116.

BR Derby was inundated with orders for the Class 116, so the work was put out to tender. All Class 118s were built in Birmingham by the Birmingham Railway Carriage and Wagon Company. Originally allocated to the Western Region, the 118 was extensively used in Devon and Cornwall. They were stabled at Laira depot. The 118s survived in service in the region until 1994 when they were replaced by Class 156s.

1 car has been preserved,

Builder	BRCW
Introduced	1960
Engine	Leyland
Length	19.66m
Width	2.82m
Withdrawn	1994
Max Speed	70mph

Number			Note	Base	Livery
51321	*977753, W51231*	A	DMS	Battlefield Line	BLG

119

Class 119 Gloucester RCW DMU



Dan Cardwell

The British Rail Class 119 DMUs were used throughout the Western Region and on services in the Midlands sourced by Tyseley Depot. Built by the Gloucester Railway Carriage & Wagon Co. Ltd, the body design was based on the Swindon Cross-Country sets, but with a Derby cab. Sets were normally formed of three cars.

Shortly after their introduction, some sets were transferred from Cardiff to serve the intermediate stations on outer suburban services from London Paddington to Oxford. These were as 7-car sets, with the addition of Hawksworth composites adapted to run as DMU trailers.

Sets worked over most of the Western Region, notable early use being the last passenger train over the Plympton branch. Minehead, Calne and Bridport branches that have since closed were also served by the sets, which also covered main line services in company with the Swindon Cross Country sets.

As with most asbestos-contaminated stock, there were heavy withdrawals, but a number were rebuilt internally after asbestos removal. 3 cars have been preserved.

Builder	Gloucester RCW
Introduced	1959
Engine	Leyland
Length	19.66m
Width	2.82m
Height	3.87m
Withdrawn	1992

Transmission	Mechanical
Max Speed	70mph

Number			Note	Base	Livery
51073		O	DMBC	Swindon and Cricklade Railway	BLG
51074		A	DMBC	Swindon and Cricklade Railway	GRN
51104	*53104*	O	DMSL	Swindon and Cricklade Railway	GRN

120

Class 120 Swindon DMU



The British Rail Class 120 was a cross-country DMU in three-car formation, built at the British Rail Swindon Works.

British Railways placed the order with British United Traction in summer 1956 for the equipment required for the 98 power cars and 47 trailers of the first batch. The first batch was ordered for the WR's West Country dieselisation scheme, which it hoped to complete by the end of 1959. The sets were expected to work between Bristol & South Devon. Their general reliability and good braking characteristics made them popular with drivers.

In February 1959, the BTC placed an order with BUT for the equipment for the seven ScR sets, along with equipment for Class 108s and 127s being built at Derby. These 120s were to work mainly on the Aberdeen to Inverness line although appearances at Oban were not unknown. Otherwise the cars worked mainly in the Western and Midland Regions.

Some cars had a trial refurbishment but this was found to be too expensive, meaning an early withdrawal for most of the class. Some of the London Midland Region's units were

transferred to Scotland in the mid-1980s, mainly finding use on local services from Edinburgh (notably to North Berwick). The final vehicles survived until 1989.

One trailer car has been preserved.

Builder	BR Swindon
Introduced	1958
Length	19.7m
Width	2.82m
Height	3.90m
Withdrawn	1989
Max Speed	70mph

Number		Note	Base	Livery
59276	S	TSLRB	Great Central Railway	GRN

121

Class 121 Pressed Steel Bubble Car



Dan Cardwell

The British Rail Class 121 is a single-car double-ended diesel multiple unit. 16 driving motor vehicles were built from 1960, numbered 55020–55035. These were supplemented by ten single-ended trailer vehicles, numbered 56280–56289 (later renumbered 54280–54289). They have a top speed of 70 mph, with slam-doors, and vacuum brakes. The driving motor vehicles were nicknamed "Bubble Cars" by some enthusiasts (a nickname endorsed and made official by final passenger service operator Chiltern Railways).

The Class 121 is Britain's longest serving DMU, operating in passenger service for 57 years until 2017.

14 vehicles have been preserved

Builder	Pressed Steel
Introduced	1960
Engine	Leyland
Length	19.66m
Width	2.82m
Height	3.77m
Withdrawn	2017
Transmission	Mechanical
Max Speed	70mph
Wheelbase	14.17m

Number	Name			Form	Note	Livery
121020 [1]		*977722, 55020, 960002, L120*	P	55020	DMBS	CRB
121022 [2]	Flora	*977873, 55022, 960014, L122*	P	55022	DMBS	CAR
121023 [3]		*L123, 55023*	P	55023	DMBS	GRN
121024 [4]		*977858, 55024, 960010, L124*	P	55024	DMBS	MAR
121025 [5]	Pandora	*977859, 960011, L125, 55025*	P	55025	DMBS	UUU
121026		*B126, P126, 977824, 55026*	X	55026	DMBS	
121029 [6]		*977968, 55029*	R	55029	DMBS	NRL
121031 [7]		*977976, 960303, 55031*	S	55031	DMBS Ex Severn Tunnel Rescue Train	NRL
121032 [8]	Cardiff Queen Street/Cardiff Bay**	*C132, T132, 55032, 977842*	A	55032	DMBS	GRN
121033 [9]		*977826, 55033*	A	55033	DMBS	GRN

121034 [10]		*977828, 55034, W55034*	P	55034	DMBS	GRN
56285		*54285, 977486, L285, 960006*	X		DTS	
56287 [11]		*54287, L287, L211*	A		DTS	GRN
960302 [12]		*977975, 121027, L127, 55027*	R	55027	DMBS Ex Severn Tunnel Rescue Train	UUU
W55028 [13]	John Cameron**	*977860, 960012, 121028, 55028*	A	55028	DMBS	GRN
W56289 [14]		*54289, L289*	O		DTS	BRB

Notes

1: Bodmin & Wenford Railway
2: Locomotive Services, Crewe
3: Chinnor & Princes Risborough Railway
4: Chinnor & Princes Risborough Railway
5: Vale of Berkeley Railway
6: Rushden Transport Museum
7: Ecclesbourne Valley Railway
8: Wensleydale Railway
9: Colne Valley Railway
10: Cholsey & Wallingford Railway
11: Epping & Ongar Railway
12: Ecclesbourne Valley Railway
13: Swanage Railway
14: East Lancashire Railway

122

Class 122 Gloucester RCW Bubble Car



The British Rail Class 122 diesel mechanical multiple units were built by Gloucester RC&W in 1958. Twenty single-car, double-ended driving motor vehicles, nicknamed "Bubble Cars", were built, numbered 55000–55019. These were supplemented by nine single-ended trailer vehicles, numbered 56291–56299

The Class 122s were built mainly for use on the London Midland Region of British Railways, although some were also used in Scotland. They were used on a variety of lightly used lines, many of which were closed during the Beeching Axe in the 1960s including the ex-LSWR lines in West Devon and North Cornwall. Routes served included the Stourbridge Town and St Albans Abbey branch lines, as well as local services between Dundee and Arbroath. (The similar Pressed Steel Company built Class 121 single units were also used on the Western Region).

During the 1990s, refurbished Class 122 units were used on the Cornish branches between Liskeard and Looe and St Erth and St Ives.

8 cars have been preserved.

Builder	Gloucester
Introduced	1958
Length	19.52m
Width	2.82m
Height	3.86m
Withdrawn	1995
Power	110kW
Weight	36.58t
Transmission	Mechanical

Max Speed	70mph

Number		Form		Note	Base	Livery
122019	*975042, 960015, T007, 55019*	S		DMBS	Llanelli & Mynydd Mawr Railway	NRL
55000	*122100, P100*	A		DMBS	South Devon Railway	GRN
55003	*W55003*	A		DMBS	Gloucestershire Warwickshire Steam Railway	GRN
55006		A		DMBS	Ecclesbourne Valley Railway	GRN
55009		A		DMBS	Great Central Railway	GRN
55012	*977941*		55012	Route learning unit		
977941	*55012*	P		DMBS, Former route learning unit	Weardale Railway	GRN
M55005	*55005*	A		DMBS	Battlefield Line	BLG
W55001	*DB975023, L101*	A		DMBS	East Lancashire Railway	BRB

126

Class 126 Swindon Intercity DMU



MRG

The British Rail Class 126 diesel multiple unit was built by BR Swindon Works in 1959/60 to work services from Glasgow to Ayrshire and comprised 22 3-car sets and were a development of the earlier Swindon-built trainsets that had been introduced in 1955 to work the Edinburgh Waverley - Glasgow Queen St services. These vehicles formed the first Inter City service to be operated by diesel units in Great Britain.

The introduction of these early diesel multiple units originated in a British Transport Commission report of 1952 that suggested the trial use of diesel railcars. BR's Swindon Works were chosen to design and build express units for the ex-North British Railway Edinburgh Waverley to Glasgow Queen Street route.

4 vehicles survive

Builder	BR Swindon
Introduced	1956
Engine	two 150 h.p. AEC horizontal diesel engines
Transmission	Mechanical
Max Speed	70mph
Length	19.66m
Width	2.82m
Height	3.90m
Withdrawn	1983
Weight	39t

Number			Note	Base	Livery
51017	*Sc51017*	A	DMSL	Bo'ness & Kinneil Railway	GRN
51043	*Sc51043*	A	DMBSL	Bo'ness & Kinneil Railway	GRN
59404	*Sc59404*	A	TCL	Bo'ness & Kinneil Railway	GRN
79443		R	TRBF, TFKRB	Bo'ness & Kinneil Railway	GRN

127

Class 127 Derby Suburban 4-Car DMU



Dan Cardwell

The British Rail Class 127 diesel multiple units were built by BR Derby in 1959. Thirty 4-car units were built, formed of two outer driving motor vehicles, sandwiching two intermediate trailers which were classified class 186. The technical description of such as 4-car unit was DMBS TSL TS DMBS.

Builder	BR Derby
Introduced	1959
Engine	Rolls-Royce
Length	19.51m
Width	2.82m
Height	3.77m
Withdrawn	1993

Transmission	Hydraulic
Max Speed	70mph

Number			Note	Base	Livery
51592		X	DMBS		
51604		X	DMBS		
51610	*55967*	S	DMBS	Midland Railway - Butterley	GRN
51616		P	DMBS	Helston Railway	GRN
51618		A	DMBS	Llangollen Railway	GRN
51622		P	DMBS	Vincent Engineering, Henstridge, Somerset	GRN
59603		A	TSL, TCL	Chasewater Railway	
M51591	*55966, 51591*	A	DMBS	Midland Railway - Butterley	GRN
M55967	*55976, 51625*	A	DMBS	Midland Railway - Butterley	GRN
M59609	*59609*	A	TSL, TCL	Midland Railway - Butterley	GRN

140

Class 140 Pacer Prototype



Chris Harley

The British Rail Class 140 was the prototype of the Pacer diesel multiple unit.

It was constructed between 1979 and 1981 in response to a desire within British Rail to develop a capable railbus for its smaller branch line services. Much of the bodywork was constructed using Leyland National bus components, with the exception of the cabs. Based on the single car railbus prototypes, the Class 140 was built to BR's then stringent regulations regarding crashworthiness and resistance to end loading; as such, much of its intention lightweight 'bus on a wagon' look was lost, becoming a more substantial vehicle. Throughout the 1980s, the sole member of the class functioned as a trials and demonstration unit, acting as a herald to the closely-related Class 141.

Since its withdrawal, the unit has been preserved at the Keith and Dufftown Railway.

Introduced	1981
Withdrawn	1990
Power	205HP
Engine	Leyland TL11
Transmission	Mechanical
Length	16m
Width	2.5m
Builder	BR Derby Works
Weight	23t
Max Speed	75mph

Number		Form	Note	Base	Livery
140001	R	55000, 55001	DMSL + DSL	Keith & Dufftown Railway	BLG

141

Class 141 Pacer



Dan Cardwell

The British Rail Class 141 was the first production model of the Pacer diesel multiple unit (DMU) railbus.

During the 1980s, British Rail (BR) was interested in replacing its first generation diesel multiple units, particularly in the use of railbuses to service its lightly used branch lines. It was decided to develop such a vehicle with a high level of commonality with the widely used Leyland National bus, leading to its modular design serving as the basis for the design.

Several single and two-car prototypes were constructed and evaluated, before an order was placed with British Leyland for twenty two-car Class 141 units during 1984. During their operating lives, the units were tasked with various passenger services across the UK for 13 years. Following withdrawal, a large portion of the units were exported to Iran where they operated for a further eight years, giving the Class 141 a total lifespan of 21 years.

Following the end of their career with British Rail, 12 Class 141s were sold to Islamic Republic of Iran Railways and were exported during 2001/2002. All units have since been withdrawn and replaced by new DMUs. Two units (106 & 112) were exported to the Netherlands, but these were both scrapped during 2005. Only a handful of units have remained in the United Kingdom, of which two units are in preservation: 141108 at the Colne Valley Railway, and 141113 at the Midland Railway – Butterley. Two units (141103 and 141110) were formerly preserved at the Weardale Railway, of which 141103 and the one remaining car from 141110 were scrapped in March 2018.

Length	15.45m
Introduced	1983-84

Builder	BREL/Leyland Bus
Power	152kW 141108 165Kw 141113
Weight	26+26.5tonnes
Engine	Leyland TL11 141108 Cummins L10 141113
Transmission	Mechanical
Max Speed	75mph
Width	2.5m
Height	3.906m
Withdrawn	1997
Wheelbase	9m

Number			Form	Note	Base	Livery
141103	*141002*	X	55503, 55523	scrapped 2018 Weardale Railway		
141108	*141007*	P	55508, 55528		Arlington Fleet Services - Eastleigh Works	BLG
141110	*141009*	X	55510, 55530			
141113	*141012*	P	55513, 55533		Midland Railway - Butterley	WYP

142

Class 142 Pacer



Dan Cardwell

The British Rail Class 142 diesel multiple unit passenger railbuses were built for British Rail from 1985 to 1987. The class were built with a high level of commonality with the widely used Leyland National bus. They are part of the Pacer family of railbuses. The last set was withdrawn from service in 2020.

The Class 142 shared a high degree of similarity to the design of the Class 141. However, one major area of change is that both the Class 142 and Class 143 featured a noticeably wider body, instead of adhering to the width of the standard bus as per the Class 141; specifically, the width was expanded to the maximum amount permissible to remain within the loading gauge. This resulted in an increased internal area to accommodate passengers within, enabling a three-by-two seating arrangement to be installed for a total maximum capacity of 121 seats per set. The increased seating was particularly useful as, in addition to their use on rural feeder services, the Class 142's use on short range urban services had been foreseen by BR planners.

Several operational class 142 units have made it into preservation and additional sets are set to be saved/earmarked for preservation, most of which so far being ex-Northern operated units with one being an ex-Arriva Trains Wales unit. The pioneer Class 142 Unit, 142001, is part of the National Collection and preserved at the National Railway Museum Shildon. Other select units have also been purchased but will only be used to provide spare parts to the units which are planned to operate on heritage railways or museums.

Wheel Arrangement	1-A+A-1
Builder	BREL Derby/Leyland
Power	165kW

Engine	Cummins LT10-R
Max Speed	75mph
Length	15.55m
Width	2.8m
Height	3.86m
Introduced	1985
Withdrawn	2020
Weight	24.5t
Transmission	Voith T211r two-stage hydraulic
Wheelbase	9m

Number			Form	Note	Base	Livery
142001		P	55542, 55592		Locomotion - NRM Shildon	NOR
142003		P	55544, 55594			GMP
142004		P	55545, 55595		Cambrian Heritage Railway, Oswestry	NOR
142006 [1]		P	55547, 55597		Llanelli & Mynydd Mawr Railway	ATW
142007		P	55548, 55598			RRG
142011		P	55552, 55602	for spares	Midland Railway - Butterley	NOR
142013		P	55554, 55604		Midland Railway - Butterley	NOR
142014		P	55555, 55605			NOR
142017		P	55558, 55608		East Kent Railway	NOR
142018	*142518*	P	55559, 55609		Wensleydale Railway	NOR
142019	*142519*	P	55560, 55610		Waverley Route Heritage Centre	NOR
142020	*142520*	P	55561, 55611		Waverley Route Heritage Centre	NOR
142023		P	55564, 55614		Plym Valley Railway	NOR

142027	P	55568, 55618	for spares	Chasewater Railway	NOR
142028	P	55569, 55619		Wensleydale Railway	NOR
142029	P	55570, 55620		Chasewater Railway	NOR
142030	P	55571, 55621		Chasewater Railway	FNW
142033	S	55574, 55624	for emergency services training	South Wales Police Development Centre, Bridgend	NOR
142036	P	55577, 55627		East Kent Railway	NOR
142038	P	55579, 55629		Mid Norfolk Railway	NOR
142041	P	55582, 55632		Wensleydale Railway	NOR
142045	D	55586, 55636		Kirk Merrington Primary School, Co Durham	NOR
142047	S	55588, 55638	55638 only	Stow Bardolph Old Station	NOR
142055	P	55705, 55751		Cambrian Railway Trust, Llynclys	NOR
142058	X	55708, 55754		Telford Steam Railway	NOR
142060	P	55710, 55756		Wensleydale Railway	NOR
142061	P	55711, 55757		Mid Norfolk Railway	NOR
142078	P	55728, 55774		Weardale Railway	NOR
142084	P	55734, 55780		Rushden Transport Museum	NOR
142087	P	55737, 55783		Wensleydale Railway	BLK
142090	P	55740, 55786		Wensleydale Railway	BLO

142091	P	55741, 55787	Rushden Transport Museum	NOR
142094	P	55744, 55790	Weardale Railway	NOR

Notes
1: Name: Tom Clift

143

Class 143 Pacer



Dan Cardwell

The British Rail Class 143 is a diesel multiple unit railbus, part of the Pacer family of passenger trains introduced between 1985 and 1986.

During the 1980s, British Rail (BR) was interested in replacing its first-generation diesel multiple units, particularly in the use of railbuses to service its lightly used branch lines. It was decided to develop such a vehicle with a high level of commonality with the widely used Leyland National bus, leading to its modular design serving as the basis for the design. Several single and two-car prototypes were constructed and evaluated, leading to an initial production batch by British Leyland, designated as the Class 141 units. BR, seeking to procure improved derivatives of the Class 141, placed an order with the manufacturers Hunslet-Barclay and Walter Alexander to construct its own variant, the Class 143.

Entering operational service during the mid-1980s, the Class 143 embodied several advances over the original model in terms of ride quality and reliability. During its operating lives, the type was tasked with various passenger services across the United

Kingdom; being initially operated in the North-East of England, all units were subsequently transferred to other regions, including Wales and South-West England.

Length	15.45m
Width	2.70m
Wheel Arrangement	1-A+A-1
Builder	Alexander/Barclay
Power	165kW
Engine	Leyland TL11 / Cummings LTA10-R
Max Speed	75mph
Height	3.52m
Introduced	1985
Withdrawn	2021
Weight	24t
Transmission	Hydraulic, Voith T211r
Wheelbase	9m

Number	Name			Form	Note	Livery
143601 [1]		*143001*	P	55642, 55667	`	ATT
143602 [2]		*143002*	P	55651, 55668		ATT
143603 [3]		*143003*	P	55658, 55669		GWU
143606 [4]		*143006*	P	55647, 55672		ATT
143607 [5]		*143007*	P	55648, 55673		ATT
143612 [6]		*143012*	P	55653, 55678		GWU
143616 [7]		*143016*	P	55657, 55682		ATT
143617 [8]	FOUNDER MEMBER & CHAIRMAN ROD GARDNER, BEWICK'S SWAN**	*143017*	P	55644, 55683		GWU
143618 [9]		*143018*	P	55659, 55684		GWU
143619 [10]		*143019*	P	55660, 55685		GWU
143622 [11]		*143322, 143022*	P	55663, 55688		ATT
143623 [12]		*143323, 143023*	P	55664, 55689		RRR
143625 [13]	Valleys Kids**	*143325, 143025*	P	55666, 55691	THE START OF A NEW JOURNEY	ATT

Notes
1: Tanat Valley Railway
2: Nene Valley Railway
3: Vale of Berkeley Railway
4: Llanelli & Mynydd Mawr Railway
5: Llanelli & Mynydd Mawr Railway
6: Llanelli & Mynydd Mawr Railway
7: Tanat Valley Railway
8: Tarka Valley Railway
9: Plym Valley Railway
10: Cambrian Heritage Railway, Oswestry
11: Llanelli Goods Shed Trust
12: Wensleydale Railway
13: Keighley & Worth Valley Railway

144

Class 144 Pacer



Dan Cardwell

The British Rail Class 144 Pacer was a diesel multiple unit (DMU) passenger train built at Derby between 1986 and 1987. BR, seeking to procure improved derivatives of the earlier Class 141, placed an order with the manufacturers British Rail Engineering Limited (BREL) and Walter Alexander to construct their own variant, the Class 144. A total of 23 units were constructed.

All units have now retired from mainline service, though a significant proportion have been acquired for preservation on heritage railways and in other uses. 19 out of the 23 units have been purchased following withdrawal for this purpose, of which 15 units are in operational condition.

Wheel Arrangement	1-A+A-1
Power	165kW
Engine	Leyland TL11 / Cummings LTA10-R
Max Speed	75mph
Builder	Alexander/BREL Derby
Weight	24-28tons
Length	15.093m
Width	2.695m
Height	3.725m
Introduced	1986
Withdrawn	2021
Wheelbase	9m

Number		Form	Note	Base	Livery
144002	P	55802, 55825		Blyth Dales School, Northumberland	NOR
144003	P	55803, 55826		Great Central Railway (Nottingham) Ltd	NOR
144004	P	55804, 55827		Aln Valley Railway	NOR
144006	P	55806, 55829		Cambrian Heritage Railway, Oswestry	NOR
144007	P	55807, 55830		Cambrian Heritage Railway, Oswestry	NOR
144009	P	55809, 55832	Originally for Greater Manchester Fire & Rescue Service but 144010 given instead	East Lancashire Railway	GMT
144010	X	55810, 55833			NOR
144011	P	55811, 55834		Keighley & Worth Valley Railway	WYP
144013	P	55813, 55836		Telford Steam Railway	NOR
144015	X	55815, 55851, 55838	Unit 55815 for disposal Sims metals Newport docks		

144016	P	55816, 55852, 55839		Aln Valley Railway	NOR
144017	P	55817, 55853, 55840		Appleby-Frodingham RPS	NOR
144018	P	55818, 55854, 55841		Mid Norfolk Railway	NOR
144020	P	55820, 55856, 55843		Wensleydale Railway	
144022	P	55822, 55858, 55845		Keith & Dufftown Railway	NOR
144023	P	55823, 55859, 55846		Tyseley Locomotive Works	NOR
55801 [(1)]	P		Ex 144001	Platform 1 Huddersfield Station	NOR
55808	P		Ex 144008	Fagley Primary School Bradford	NOR
55824 [(2)]	P		Ex 144001	Airedale Hospital, Keighley	NOR
55831	P		Ex 144008	Corby Model Railway Society	NOR

Notes
1: Name: THE PENISTONE LINE PARTNERSHIP
2: Name: THE PENISTONE LINE PARTNERSHIP

150

Class 150 Sprinter



150231 at the Greatest Gathering

Dan Cardwell

Class 150 "Sprinter" units developed in the 1980's to replace first generation DMUs.

Formation	DMSL+DMS / DMSL+MS+DMS
Introduced	1984
Builder	BREL
Engine	Cummins NT855-R5
Transmission	Voith hydrokinetic
Max Speed	75 mph

Number	Name		Form	Base	Livery
150231	King Edmund**	P	52231, 57231	Mid Hants Railway	RRR

153

Class 153 Super Sprinter



The British Rail Class 153 Super Sprinters are single-coach railcars converted from two-coach Class 155 diesel multiple units in the early 1990s. The class was intended for service on rural branch lines, either where passenger numbers do not justify longer trains or to boost the capacity on services with high passenger volume.

The conversion involved retrofitting a driver's cab at into the spaces previously used for luggage racks at the "inside" end (B-end) of each vehicle, where each vehicle had previously been coupled back-to-back with its matching opposite in a Class 155 formation.

Unit 153374 has been preserved, for static use as a community cafe, at Cynheidre on the Llanelli and Mynydd Mawr Railway. Units 153308 & 153371, whilst not strictly preserved, are used on the Great Central Railway for testing contracts but may see occasional passenger usage.

Diagram	DX203
Length	23.208m
Width	2.700m
Height	3.746m
Introduced	1991
Builder	Hunslet-Barclay conversion from Leyland Bus
Power	213kW
Weight	41.2t
Engine	Cummins NT855R5
Transmission	Voith T211r hydrokinetic
Max Speed	75mph
Wheelbase	16m

Number		Form	Note	Base	Livery
153308	T	52308	For use on testing contracts - not classed as preserved	Great Central Railway	EMT
153334	S	52334	Future movement to the Ashville Aggregates site at West Drayton and interior conversion as a reception space planned	Quinton Rail Technology Centre, Long Marston	LMI
153371	T	57371	For use on testing contracts - not classed as preserved	Great Central Railway	LMI
153374	D	57374	Body shell in use as cafe at Llanelli Railway	Llanelli & Mynydd Mawr Railway	EMT

201

Class 201 Hastings Thumper 6S DEMU



Neil Thaler

The British Rail Class 201 (or 6S) six-car diesel-electric multiple units (DEMUs) were built in 1957–1958 at Eastleigh and underframes were built at Ashford. They were usually in the formation: DMBSO-TSOL-TSOL-TFK-TSOL-DMBSO.

The Southern Region Class 201-207 DEMUs are nicknamed 'Thumpers' due to the noise they made while in motion, owing to the four-cylinder engines.

These units were built for the London-Hastings line, with a narrow body profile to accommodate the restricted tunnel loading gauge on that line.

Gauge	1,435 mm (4 ft 8 1⁄2 in)
Builder	Eastleigh and Ashford Works
Max Speed	75 mph (121 km/h)
Introduced	1957
Withdrawn	1986
Weight	55 long tons (56 t; 62 short tons)
Length	17.67m
Width	2.74m
Height	3.82m
Power	750kW

Number	Name		Note	Livery
60000	Hastings	*1001, 201001*	DMBSO	BLG
60001		*1001, 201001*	DBSO	GRN
60500		*1001, 201001*	TSOL	GRN
60501		*1001, 201001*	TSOL	BLG
60502		*1001, 201001*	TSOL	BLG
60700		*1001, 201001*	TCK	GRN

202

Class 202 Hastings Thumper 6L DEMU



60118 at Hastings on 17 August 2024

Rsrrlcsd

The British Rail Class 202 (or 6L) diesel-electric multiple units were built from 1957-58 at Eastleigh and Ashford Works. These units were built to work the London Charing Cross to Hastings services. Several tunnels along the route had restricted clearance, meaning that these units were built with a narrow body profile. Similar to the Class 201 (or 6S) they were built to the longer (63ft 5in) BR Mk1 standard and therefore had 288 seats (240 second class plus 48 first class) compared to the 242 (200 42) of the 6S units.

The last six-car units were withdrawn in 1986, when the Hastings line was electrified. The line through the tunnels was reduced to single track, allowing standard loading gauge Class 411 electrical multiple units to replace the diesel units on passenger services. One unit was subsequently reinstated to provide emergency cover, and was renumbered as 202001 to conform with the TOPS numbering system.

After the mass withdrawals of 1986, several units were reformed as four-car units, and subsequently renumbered into the Class 203 series. In addition, several vehicles saw further use as departmental vehicles. One complete unit, and 2 individual vehicles have been preserved.

Length	19.66m
Width	2.74m
Height	3.73m
Introduced	1957
Withdrawn	1987

Builder	Eastleigh and Ashfield Works
Weight	55.9t
Engine	English Electric 4SRKT Mark II
Transmission	Diesel Electric
Max Speed	75mph

Number	Name		Note	Base
60116	Mountfield	*60016, 1001, 201001*	DMBSO	
60118	Tunbridge Wells	*60018, 1001, 201001, 1013*	DMBSO	St. Leonards Railway Engineering
60119		*60019, 1013, 202001*	DMBSO	St. Leonards Railway Engineering
60527		*1013, 202001*	TSOL	St. Leonards Railway Engineering
60528		*1013, 202001*	TSOL	St. Leonards Railway Engineering
60529		*1001, 202001*	TSOL	
60709		*1013, 202001*	TCK	St. Leonards Railway Engineering

203

Class 203 Hastings Thumper 6B DEMU

The British Rail Class 203, initially classified 6B, was a type of diesel-electric train. Seven units, numbered 1031-1037, were constructed in 1958 for use on the Southern Region. They were similar to the earlier Class 202 units, differing only in the substitution of a trailer buffet car for one of the three trailer second opens.

Two vehicles survive: DB975025 Caroline and S60750. S60750, the buffet removed car from unit 1031 in 1963, had been used for tilt tests in the 1980s for the Advanced Passenger Train. This vehicle was fitted with a centre executive section, a urinal, and a classroom at one end which also had windows fitted for use when the vehicle was propelled at the Old Dalby test track, and was later used for airflow tests before being rescued first by Hastings Diesels Ltd at St. Leonards Depot and subsequently by the Hastings 60750 Group. In 2011 the vehicle came under the care of the APT-E Conservation and Support Group

Introduced	1958

Withdrawn	1990
Builder	Eastleigh and Ashfield Works
Weight	56t
Max Speed	75mph

Number			Form	Note	Base
60750	*975386*	P	1032	TSRB	Battlefield Line

205

Class 205 Hampshire Thumper 3H/2H DEMU



The first batch of units, numbered 1101–1118, was built in 1957 as two-car units and classified as 2H. They were built for services in Hampshire on the non-electrified routes between Portsmouth Harbour, Salisbury and Andover and between Alton, Winchester and Southampton Terminus. The first units entered service in September 1957. However, owing to increasing passenger numbers, all eighteen units were strengthened to three cars in 1958 and 1969, with the addition of a centre trailer, and therefore were reclassified as 3H units, Formation DMBSO-TSO-DTCsoL. Upon the introduction of TOPS they were reclassified as Class 205. Some of these were later converted back to 2 car sets, but they retained their Class 205 designation.

The second batch of 2H units, numbered 1119–1122, was built as 2-car units in 1958. These units were built for services on the Marshlink Line from Hastings to Ashford, and associated branch lines. These units remained as two-car sets until 1979, and were reclassified as Class 204 upon the introduction of TOPS. In May 1979, following the disbandment of the four Class 206 units, they were strengthened to three cars and redesignated as Class 205s.

The third batch of units was built as three-car sets in 1959, and numbered 1123–1126. These units were built to supplement the first batch on services in Hampshire. Collectively, the first and third batches are often called Hampshire sets.

The final batch of units, numbered 1127–1133, was built in 1962 as three car sets. These units have some detail differences from the earlier batches, such as a different internal layout, and smaller route indicators (compare the two photos). They were built for services from Reading to Salisbury, and other services in Berkshire. The final batch of units is sometimes referred to as Berkshire sets.

Due to a generous disposal policy by Porterbrook Leasing, nearly all of the final units in service were preserved. The only unit not preserved was no. 205012, which had poor bodywork and donated its engine to the only surviving unrefurbished Class 207 unit.

Builder	BR Eastleigh
Max Speed	75mph
Introduced	1958
Engine	English Electric 4SRKT
Power	370kW
Length	19.51m
Width	2.8m
Withdrawn	2004

Number			Form	Note	Base	Livery
1125	*205025*	P	60124, 60824		Mid Hants Railway	GRN
1125	*205025*	P	60824		Caledonian Railway	GRN
205008	*1121, 1108*	P	60120, 60657, 60820	60820 preserved	Lavender Line	GRN
205009	*1109*	P	60108, 60658, 60808		Eden Valley Railway	CX
205028	*1128*	S	60146, 60673, 60827	Awaiting Restoration	Caledonian Railway	UUU
205032	*1132*	P	60150, 60677, 60831	60677 Stored OOU (vandalised)	Caledonian Railway	GRN
205033	*1133*	P	60151, 60678, 60832	60151 and 60832 preserved	Lavender Line	GRN
205205	*1111, 205101*	N	60110, 60810	unit currently separated	Epping & Ongar Railway	NSE
60110	*1111, 205205*	P			Nemesis Rail, Burton-on-Trent	NSE

60117	*1118, 205018*	P			Kent & East Sussex Railway	BRB
60122	*1123, 205023*	S	60122		Lavender Line	GRN
60145	*1127, 205027, 977939, 930301*	S			St. Leonards Railway Engineering	BRB
60149	*1131, 205031, 977940, 930301*	S			St. Leonards Railway Engineering	
60154	*60100, 1101, 205001*	P		DMBSO	East Kent Railway	BRB
60669	*1124, 205024*	S			Swindon and Cricklade Railway	NSE
60678	*1133, 205033*	X		Presumed scrapped		
60800	*1101, 205001*	P		DTC	East Kent Railway	BRB
60810	*1111, 205101*	P			Epping & Ongar Railway	NSE
60822	*1123, 205023*	R			Swindon and Cricklade Railway	NSE
60828	*1129, 205029, 205018*	P			Kent & East Sussex Railway	BRB

207

Class 207 Oxted Thumper 3D DEMU



The British Rail Class 207 (3D) diesel-electric multiple units were built by BR at Eastleigh in 1962. The fleet had a lifespan of 42 years. The Southern Region class 201 to 207 DEMUs are nicknamed 'Thumpers' due to the noise their engine units make.

When new the class were used on the Oxted Line, and were mostly concentrated on services between London Victoria and Uckfield and Eridge to Tonbridge via Tunbridge Wells. Other routes that the units operated included occasional workings on the Marshlink Line, the Three Bridges to Tunbridge Wells Central Line and the Cuckoo Line. Following the closure of the last two of these routes the unit gained workings on the Redhill to Tonbridge Line, and were known to deputise for 3R units on the North Downs Line to Reading. Most units were withdrawn in 1987 following the electrification of the Oxted Line's East Grinstead branch. Four of the seven surviving units were used on the Reading to Basingstoke Line between 1988 and 1993; once this had finished three were withdrawn and the fourth sent to join the other three survivors on the Marshlink Line; between 1995 and 1998 this included through services from Ashford International to Brighton. After this the class operated on the Marshlink Line between Ashford and Hastings and the Oxted Line between London Victoria and Uckfield for privatised companies Connex South Central and Southern. The final three units were withdrawn in August 2004

Builder	BR Eastleigh
Max Speed	75mph
Introduced	1962
Engine	English Electric 4SRKT
Power	370kW
Withdrawn	2004

Weight	56.9t
Transmission	two English Electric type EE507 traction motors rated at 250 hp (190 kW) each

Number	Name		Form	Note	Livery
1305 [1]	Brighton Royal Pavillion	*207202*	60130, 70549, 60904		
207017 [2]		*1317*	60142, 60616, 60916		BLG
207203 [3]		*1302*	60127, 70547	Vehicle 60901 scrapped after fire	GRN

Notes
1: Bluebell Railway
2: Spa Valley Railway
3: Spa Valley Railway

302

Class 302 AM2 EMU

The British Rail Class 302 (pre-TOPS AM2) was a type of electric multiple unit (EMU) introduced between 1958 and 1960 for outer suburban passenger services on the London, Tilbury and Southend line. This class of multiple unit was constructed using the Mark 1 bodyshell and was slam-door.

Like all the Eastern Region AC EMUs of the period, they were equipped to operate on both 25 kV AC and the reduced 6.25 kV voltage in the inner London areas where headroom for the overhead wires was reduced. On the LT&S the changeover point was just east of Barking station on both Upminster and Tilbury routes with the link to Forest Gate being at 6.25kV ac.

Two driving trailers, 75033 and 75250, which belonged to units 302 201 and 302 227, are preserved at Mangapps Railway Museum near Burnham-on-Crouch, Essex. These units have been repainted into BR overall blue with yellow ends and are still in very good condition, with the destination scrolls still in working order, the seats still in British Rail colours and the Network South East maps still in very good condition. The rest of the fleet has been scrapped since withdrawal in late 1999.

System	6.25 / 25kV AC Overhead
Length	20.27m
Width	2.82m
Height	3.84m
Introduced	1958

Withdrawn	1998
Wheel Arrangement	2'2'+Bo'Bo'+2'2'+2'2'
Builder	York and Doncaster Works
Power	143kW
Max Speed	75mph

Number			Form	Note	Base	Livery
302201	*201*	P	75033	DTSO only preserved	Mangapps Railway Museum	BRB
302277	*277, 302227*	P	75250	DTSO only preserved	Mangapps Railway Museum	BRB

303

Class 303 AM3 'Blue Train' EMU



MRG

The British Rail Class 303 electric multiple units, also known as "Blue Train" units, were introduced in 1960 for the electrification of the North Clyde and the Cathcart Circle lines in Strathclyde. They were initially classified as AM3 units before the introduction of the TOPS classification system, and were the dominant EMU on the Glasgow suburban railway network for over 25 years before being progressively phased out by newer rolling stock. The final units were withdrawn from service in 2002. The fleet's lifespan was 42 years.

The units were later used on the Inverclyde and Argyle lines of the Glasgow suburban railway network as various electrification schemes came to fruition.

One complete unit has been saved for preservation. It is a hybrid unit consisting of the driving vehicles from set 303032 and the motor coach from 303023, which replaced 303032's own damaged motor coach. Unit 303023 was one of only four to carry the later SPT carmine/cream livery. The set has been modified to operate in multiple with a blue-star compatible diesel locomotive (typically a Class 27) so that it can be driven on an unelectrified heritage line.

System	25KV OHLE
Builder	Pressed Steel, Linwood
Length	19.49m
Width	2.82m
Height	3.86m
Introduced	1960
Withdrawn	2002
Wheel Arrangement	2'2'+Bo'Bo'+2'2'
Power	618kW
Max Speed	75mph
Wheelbase	14.47m

Number			Form	Note	Base	Livery
303023	*023*	A	61503	MBS (only) preserved	Bo'ness & Kinneil Railway	FSP
303032	*032*	A	75597, 75632	DTSO & BDTSO (only) preserved	Bo'ness & Kinneil Railway	

306

Class 306 AM6 EMU



017 at Locomotion Shildon

Dan Cardwell

Class 306 trains were built to a pre-World War II design by Birmingham Railway Carriage and Wagon Company (Driving Trailer) and Metro Cammell (Driving Motor Brake and Trailer) and were equipped with Metrovick traction equipment Crompton Parkinson traction motors. Each carriage featured two sets of twin pneumatic sliding passenger doors, which could be opened by either the guard or the passengers, who could use buttons fitted inside and outside the doors. The order was placed by the LNER in 1938 but official delivery did not commence until February 1949.

When built the trains were energised at 1,500 V direct current (DC) which was collected from overhead wires by a diamond pantograph located above the cab on the Motor Brake Second Open (MBSO) vehicle.

From 1959 to 1961 the overhead wires were re-energised at 25 kV alternating current (ac) (and 6.25 kV ac in the inner London areas where headroom for the overhead wires was reduced) and the trains were rebuilt to use this different electrical system. A transformer and rectifier unit was fitted to the underframe between the bogies of the intermediate Trailer Brake Second (TBS) and the pantograph, now a more modern Stone Faiveley AMBR design, was moved to the roof of this carriage. Because this reduced the headroom inside the train, the guard's compartment was relocated to be directly below the pantograph. The trains were then numbered 001-092 with the last two digits of each carriage number (LNER coaching series numbers used) the same as the unit number.

System	25KV OHLE
Width	2.82m
Height	3.99m

Introduced	1949
Withdrawn	1981
Wheel Arrangement	Bo'Bo'+2'2'+2'2'
Builder	Metro Cammell and BRCW
Max Speed	75mph

Number			Form	Note	Base	Livery
306017	*017*	D	65217, 65417, 65617	DMSO+TBCO+DTSO	Locomotion - NRM Shildon	GRN

307

Class 307 AM7 EMU

The British Rail Class 307 electric multiple units were built by BR at Eastleigh Works from 1954 to 1956. They were initially classified as AM7 before the introduction of TOPS.

Thirty-two of these 4-car units were built for services on the Great Eastern Main Line. All units were formed of four cars. When originally built, units were numbered in the range 01s-32s and were composed of two outer driving trailers, an intermediate trailer composite (i.e. with some first-class seating) and an intermediate motor brake. The units were constructed to operate off the 1,500 V direct current (DC) overhead power system used on Eastern Region suburban lines from Liverpool Street to Shenfield and Southend Victoria. However, in the late 1950s / early 1960s, these lines were converted to the 6.25 kV/25 kV alternating current (AC) overhead system, which was adopted as standard and coincided with the introduction of new Class 302 (AM2) units. Therefore, from 1960 to 1962, the entire AM7 fleet was extensively rebuilt at Eastleigh Works to allow units to operate from the new voltage system. The work including moving the guard's compartment from the motor coach to one of the driving trailers. At the same time, units were renumbered into the range 101–132.

In the early 1990s, the British Rail parcels sector Rail Express Systems identified the need for driving trailers to operate in push-pull mode with a locomotive. This would remove the time-consuming process of changing the locomotive to other end of the train to allow it to leave a terminus. These new vehicles were called Propelling Control Vehicles (PCVs), since it was envisaged that they would only be used to propel a train into or out of a terminus, and not used at high speed or over long distances. It was decided to convert the vehicles from the many redundant Class 307 vehicles that were stored at various locations around the country.

One driving Brake trailer from unit 307123 has been saved for preservation. Two PCV conversion has also been saved for preservation.

Length	19.4m

Width	2.82m
Height	3.98m
Introduced	1956
Withdrawn	1993
Builder	Eastleigh and Ashford Works
Max Speed	75mph

Number			Form	Note	Base	Livery
307123	*123*	P	75023	DBTBSO Only	Colne Valley Railway	BRB

308

Class 308 AM8 EMU

The British Rail Class 308 alternating current (AC) electric multiple units (EMU) were built by British Railways' Holgate Road carriage works in three batches between 1959 and 1961. They were initially classified as AM8 units before the introduction of TOPS.

The first batch of 33 units were built in 1959, classified as AM8 and numbered 133–165. This was later changed to Class 308/1 under the TOPS system, and units were renumbered 308133–165. Each unit was formed of four carriages: two outer driving trailers, an intermediate trailer, and a motor coach.

A second batch of nine units, numbered 313–321, were built in 1959–60. These units were later reclassified as Class 308/2 under TOPS. Each unit was formed of four carriages: two outer driving trailers, an intermediate trailer, and a motor luggage van

Finally, a third batch of 3-car units were built in 1961 for suburban services from London Liverpool Street to Chingford and Enfield Town. They were numbered 453–455, following on from the Class 305/1 units, which also operated these services. These units were later reclassified as Class 308/3, and renumbered 308453–455 under TOPS. Each unit was formed of three carriages: two outer driving trailers, and an intermediate motor coach.

One driving trailer from unit 308136 has been saved for preservation.

The carriage has been stripped of asbestos, and the full internal rebuild was abandoned in favour of housing the salvaged parts of the London Underground Victoria Line Cobourg Street signalling centre, and much of the former Brixton interlocking machine room equipment. The Cobourg Street equipment is now partially working, with work ongoing to allow simulated train movements to be displayed.

System	25KV AC OHL
Builder	BREL York
Power	770hp

Max Speed	75mph
Width	2.82m
Height	3.84m
Introduced	1929
Withdrawn	2001

Number			Form	Note	Base	Livery
308136	*136*	P	75881	BDTCO only	Colne Valley Railway	WYP

309

Class 309 Clacton Express AM9 EMU



Dan Cardwell

The British Rail Class 309 "Clacton Express" electric multiple units (EMUs) were built by British Rail (BR) York Carriage Works from 1962–1963. They were initially classified as Class AM9 before the introduction of TOPS. These units were the first express 25 kV alternating current (AC) units to be built by British Rail and were their first EMUs capable of 100 mph.

Twenty-four units were built in three different configurations: 601–608 – Two-car units (309/1) 611–618 – Four-car units containing a griddle car (309/2) 621–627 – Four-car units (309/3)

Each unit had identical electrical equipment. The original concept called for increasing the power-to-weight ratio when strengthening trains from eight to ten cars in peak periods using the 2-car units, in order to make the peak timetable more resilient.

Following withdrawal from normal service, three units were transferred to Eastleigh works: numbers 616, 617 and 624. In 2001, two of these units were converted to Class 960 departmental units for cab-signalling tests at the Old Dalby test track. They were reduced in length to 3 cars and painted in a blue and white livery. They were withdrawn in 2004, following completion of the tests, and stored at MoD Pig's Bay, near Shoeburyness, Essex, until early 2009 when they entered preservation. The third unit, 617, was used as a spares donor and sat derelict at Eastleigh until it was scrapped in August 2004. Finally, one vehicle from 309623 survives, TSO purchased by West Coast Railways in 2003 for eventual spares use, however has been sat to this day unrestored at Carnforth MPD Still in its North West Regional Railways colours.

System	25KV OHLE
Builder	BR York
Length	19.66m
Width	2.819m
Height	3.899m
Introduced	1962
Withdrawn	2000
Power	841kW
Max Speed	100mph

Number			Form	Note	Base	Livery
309616	*960101, 616*	R	977962, 977963, 977964	BDTC+MBSO+DTSO	Severn Valley Railway	NSJ
309623	*623*		71758	BTSO 71758 only preserved	West Coast Railway Co. Carnforth	
309624	*960102, 624*	R	977965, 977966	BDTC+MBSO	East Anglian Railway Museum	BLG
75972	*960102, 309624, 624*	R	977967	DTSO from 309624	Rushden Transport Museum	BLG

311

Class 311 AM11 EMU

The British Rail Class 311 alternating current (AC) electric multiple units (EMU) were built by Cravens at Sheffield in 1967. They were intended for use on the line from Glasgow Central to Gourock and Wemyss Bay, which was electrified in 1967.

Outwardly, the units were virtually identical to the earlier Class 303 units built in 1960. The interiors were also very similar, including the panoramic full forward passenger view

through the glass-walled driving cabs, although the Class 311 had fluorescent lighting instead of the tungsten filament bulbs used on the Class 303. The Class 303 units had been built by Pressed Steel at their factory in Linwood, Paisley, but by the time the Class 311 was required, Pressed Steel no longer built railway carriages, so Cravens of Sheffield worked to the same original drawings, updated at a few points, to build the new trains.

After being withdrawn from normal traffic, two units, 311103/104 were transferred to departmental duties as Class 936 Sandite units, numbered 936103/104. These lasted in service until 1999, when they were withdrawn. In 2002, Railtrack donated one of the units to the Summerlee Heritage Park Museum in Coatbridge, and the other was scrapped in 2003. One of the driving coaches on the unit donated to Summerlee was scrapped in 2006.

System	25KV AC OHL
Builder	Cravens Of Sheffield
Power	890hp
Max Speed	75mph
Width	2.82m
Height	3.86m
Introduced	1967
Withdrawn	1990

Number			Form	Note	Base
311103	*936103, 103*	R	76414, 62174, 76433	BDTCOL+MBSO+DTSO (76414 has now been scrapped)	Summerlee Heritage Park

312

Class 312 EMU

The British Rail Class 312 alternating current (AC) electric multiple units (EMUs) were built between 1975 and 1978 for use on outer-suburban passenger services. It was the last class of multiple unit to be constructed with the British Rail Mark 2 bodyshell, as well as the last class of multiple unit to be built with slam doors in Britain. These features contributed to their relatively early withdrawal at 25–28 years old, compared with a typical EMU life expectancy of 30–40 years.

These units were based on the Class 310 used on the suburban services out of London Euston but were rated for a top speed of 90 mph (140 km/h), and they had flat windscreens from the outset. The only significant difference between sub-classes was that the 312/1 units were also equipped to work on the 6.25 kV AC overhead electrification system used on parts of the Great Eastern Main Line and London, Tilbury and Southend line networks.

Vehicles 78037 and 71205 from unit 312792 have been preserved

System	25KV AC OHL
Builder	BREL York
Max Speed	90mph
Width	2.82m
Height	3.772m
Introduced	1975
Withdrawn	2004

Number		Form	Note	Base	Livery
312792	P	78037, 71205	DT+TS only	Colne Valley Railway	NSE

313

Class 313 EMU



313021 at the Greatest Gathering

Dan Cardwell

The British Rail Class 313 is a dual-voltage EMU train built by British Rail Engineering Limited's Holgate Road carriage works between February 1976 and April 1977.

They were the first production units that were derived from British Rail's 1971 prototype suburban EMU design which, as the BREL 1972 family, eventually encompassed 755 vehicles over five production classes (313, 314, 315, 507 and 508). They were the first second-generation EMUs to be constructed for British Rail and the first British Rail units with both a pantograph for 25 kV 50 Hz AC overhead lines and contact shoe equipment for 750 V DC third rail supply. They were, additionally, the first units in Britain to employ multi-function automatic Tightlock couplers, which include electrical and pneumatic connections allowing

the coupling and uncoupling of units to be performed unassisted by the driver whilst in the cab.

The Class 313 units were the oldest EMUs operating on the National Rail network in Great Britain prior to their withdrawal in 2023, having entered service in 1976. However, the even older 1972 Stock and 1973 Stock are still in service on London Underground.

Network Rail leased Beacon Rail-owned unit 313121 as a test vehicle for the ERTMS installation on the Hertford Loop. The unit was repainted into Network Rail's yellow house colours and internally refurbished at Alstom's Wembley Intercity Depot, to include a new driving desk, technician's workstation, kitchen and toilet facilities, and the necessary ERTMS equipment.

It was expected to be used again when ERTMS was ready for testing on the Great Western Main Line, but Network Rail instead listed the unit for sale by tender in January 2023. The Railway Heritage Designation Advisory Board had originally designated unit 313201 for potential preservation after retirement, on the grounds that it was the first Class 313 unit built, and by extension the first production PEP-derived unit. However, in early 2023, the board decided instead to designate Network Rail's unit 313121, as unlike 313201 it retains its original seating and dual-voltage running equipment.

Formation	DMSO-PTSO-BDMSO
System	25 kV 50 Hz AC Overhead & 750 V Third Rail
Length	19.80m
Width	2.82m
Height	3.582m
Introduced	1976
Withdrawn	2023
Builder	BREL Holgate
Power	656 kW
Weight	104.7t
Transmission	8 × GEC G310AZ
Max Speed	75 mph
Driving Wheel Dia	840mm
Wheelbase	14.17m
Brakes	Electro Pneumatic Discs & Rheostatic

Number	Name			Form	Note	Livery
313121 [1]	Pan Up Pete, Torrevieja	*313021*	P	62549, 71233, 62613	Converted to ERTMS Test Train	NRL
313201 [2]	Silvertown**	*313101, 313001*	P	62529, 71213, 62593		BLG

Notes
1: Fife Heritage Railway
2: Llanelli & Mynydd Mawr Railway

315

Class 315 EMU

The British Rail Class 315 was a fleet of alternating current (AC) electric multiple unit trains, built by British Rail Engineering Limited at Holgate Road Carriage Works in York between 1980 and 1981; they replaced the Class 306 units. It was the fifth and final variant of unit derived from British Rail's 1971 prototype suburban EMU design which, as the BREL 1972 family, eventually encompassed 755 vehicles across Classes 313, 314, 315, 507 and 508. Revenue services with Class 315 units commenced in 1980 and continued until December 2022.

Formation	DMSO-PTSO-TSO-DMSO
System	25 kV 50 Hz AC Overhead
Length	19.8m
Width	2.82m
Height	3.582m
Introduced	1980
Withdrawn	2022
Builder	BREL Holgate
Power	660kW
Weight	35t
Transmission	Brush TM61-53 or GEC G310AZ, interchangeably
Max Speed	75 mph

Number		Form	Note	Base	Livery
315856	P	64571, 71336, 71444, 64572	64571, 71444 at Llanelli, 64572 at Dean Forest, rest of unit unknown. Whole unit destined for Llanelli & Mynydd Mawr	Llanelli & Mynydd Mawr Railway	TFL

316

Class 457 EMU, Class 316 EMU & Class 210 DEMU

Class 316 and Class 457 were TOPS classifications assigned to a single electric multiple unit (EMU) at different stages of its use as a prototype for the Networker series.

In the late 1980s, the Network SouthEast division of British Rail, which operated the railway network in South East England, started to develop a new standard train, known as the Networker. To test out the technical arrangements for the Networker, a test train was used, converted from former Class 210 carriages, which were built in 1982 by Derby Litchurch Lane Works as prototype 'Second Generation' Diesel Electric Multiple Unit (DEMU), but were withdrawn after a few years.

Initially the test unit was formed for trials on the 750 V direct current (DC) third rail system of the Southern Region, and was numbered 457001. As with all Southern Region electric multiple units only the last four digits of the unit number were actually carried.

Later, the unit was altered to undertake trials on the 25 kV alternating current (AC) overhead wire system used on electrified lines north of the River Thames. The unit was renumbered as a Class 316 unit, number 316999. To enable it to work on the AC electrification, a pantograph trailer from a Class 313 unit 313034 was inserted into the set, replacing one of the intermediate trailers. This spare vehicle (no. 67400) has since been incorporated into a Class 455/9 DC suburban unit, replacing a damaged Trailer Second Open (TSO) vehicle.

After the AC trials were complete, the set was returned to the Southern Region for storage, minus the Class 313 trailer, which returned to its previous formation. The two driving cars were preserved at the Electric Railway Museum, Warwickshire, one being resold to the Eversholt Rail Group and inserted into set 455913 in 2013 after being rebuilt at Wolverton railway works to replace a carriage destroyed in an accident. The vehicle (67301) was converted to a 455 MSO. The remaining intermediate trailer was scrapped.

System	750V DC Third Rail & 25kV 50Hz AC Overhead
Introduced	1989
Withdrawn	1990

Number			Note	Base	Livery
67300	*316999, 457001, 60300, 7001*	R	DMSO	East Kent Railway	NSE

317

Class 317 EMU

The British Rail Class 317 is an electric multiple unit (EMU) passenger train constructed by British Rail Engineering Limited in two batches, 48 sets being produced in 1981–82 and 24 sets in 1985–87. They were the first of several classes of British Rail EMU to be based on the all-steel Mark 3 bodyshell, departing from the "PEP"-aluminium design which had spawned the earlier Class 313 to Class 315, Class 507 and Class 508. The Mark 3 bodyshell was also the basis of Class 318, Class 455, and the diesel Class 150. The Class 317 uses overhead alternating current electrification.

Each unit is composed of four vehicles: two unpowered standard-class vehicles with driver's cabs, an intermediate trailer with both first- and standard-class seating, and an intermediate motor vehicle with second-class seating. The motor vehicle also carries the roof-mounted Stone Faiveley AMBR pantograph.

The technical description of the formation of the units is DTSO(A)-MSO-TCO-DTSO(B)

DTSO vehicle 77092 from unit 317345 is preserved at the East Anglian Railway Museum, and TCO vehicle 71621 from the same unit is at The Depot in Caxton. It will be a static display and it will be used to tell the story of the British Railways class 317's as well as the history of electrification in Anglia.

System	25 kV 50 Hz AC Overhead
Length	20.1m
Width	2.82m
Introduced	1983
Withdrawn	2022
Builder	British Rail Engineering Limited
Max Speed	100mph

Number			Note	Base	Livery
71621	*317345*		Ex 317345	The Depot, Caxton, Cambs	
77092	*317435*	P	Ex 317345	East Anglian Railway Museum	NSE

365

Class 365 Networker Express 'Happy Train' EMU

The British Rail Class 365 Networker Express were dual-voltage (25 kV AC and 750 V DC) electric multiple-unit passenger trains built by ABB at Holgate Road Carriage Works in 1994 and 1995 to operate services in South East England and on the Great Northern Route.

These were the last trains to be built at the Holgate Road works before its closure. Due to the refurbished front end resembling a smiling face, the trains were nicknamed "Happy Trains" by enthusiasts.

DMSO (A) (65917) and TSO (72287) from unit 365524 along with DMSO (B) (65974) from unit 365540 have been preserved and are to be put on static display at the East Kent Railway, where they will be used as a restaurant, an exhibition area, and a major events venue.

System	25 kV 50 Hz AC overhead, 750 V DC third rail (removed)
Width	2.81m
Height	3.77m
Introduced	1996
Withdrawn	2021
Builder	York Holgate Road
Power	1256kW
Weight	151.62t
Max Speed	100mph

Number			Note	Base
65917	*365524*	P	DMOC from 365524	East Kent Railway
65974	*365540*	P	DMOC from 365540	East Kent Railway
72287	*365524*	P	TOSL from 365524	East Kent Railway

370

Class 370 APT-P EMU



APT at Crewe Heritage Centre

Paul Tavener

British Rail's Class 370 tilting trains, also referred to as APT-P (meaning Advanced Passenger Train Prototype), were the pre-production Advanced Passenger Train units. Unlike the earlier experimental gas-turbine APT-E unit, these units were powered by 25 kV AC overhead electrification and were used on the West Coast Main Line between London Euston and Glasgow Central. The APT-P is the most powerful domestic train to have operated in Britain, the eight traction motors fitted to the two central Motor Cars giving a total output of 8,000 horsepower (6,000 kW). This enabled the train to set the UK rail speed record of 162.2 miles per hour (261.0 km/h) in December 1979, a record that stood for 23 years until broken by a Eurostar Class 373 on the newly completed High Speed 1.

The APT-P was unveiled to the public on 7 June 1978 and continued to be used for testing into 1986. Due to ongoing technical problems with these pre-production units, and a lack of cash or political will to take the project forward, the planned APT-S (Advanced Passenger Train Squadron Service) production-series units were never built but did influence the design of the later InterCity 225 sets designed for the East Coast Main Line electrification. The influence is strongest with the Class 91 locos which took many features from the APT powercars. The technology was later sold to Fiat Ferroviaria and used for improving their second generation Pendolino trains which are used worldwide, including on the West Coast Main Line as the Class 390.

All six units were withdrawn during 1985–1986, and most cars were quickly scrapped. The remaining cars are exhibited at Crewe Heritage Centre, a museum located next to Crewe station.

System	25 kV 50 Hz AC Overhead

Width	2.72m
Height	3.5m
Introduced	1980
Withdrawn	1986
Wheel Arrangement	2'2'2'2'2'2'2'+Bo'Bo'+Bo'Bo'+2'2'2'2'2'2'2'
Builder	BR Derby Works
Weight	434t
Max Speed	155mph

Number			Note	Base	Livery
48103	*370003*	P	DTS	Crewe Heritage Centre	APT
48106	*370006*	P	DTS	Crewe Heritage Centre	APT
48404		P	TRSB	Crewe Heritage Centre	APT
48602		P	TBF	Crewe Heritage Centre	APT
48603		P	TBF	Crewe Heritage Centre	APT
49002		P	M	Crewe Heritage Centre	APT
49006		P	Power Car	Crewe Heritage Centre	APT

401

Class 401 2-BIL EMU



The Southern Railway (SR) gave the designation 2-BIL to the DC third rail electric multiple units built during the 1930s to work long-distance semi-fast services on the newly electrified lines from London to Eastbourne, Portsmouth and Reading. This type of unit survived long enough in British Rail ownership to be allocated TOPS Class 401.

The 2-BIL units (2-car Bi-Lavatory stock) were so-called because each set had two lavatories, one in each car. They were built in four batches, each for service on newly electrified lines.

The different batches were broadly similar, though in the first one, the driving motor brake car had a smaller brake compartment and seven full compartments, rather than six-and-a-half in the later batches. Several of the cars were destroyed in World War 2 at various points on the system. Some unit numbers were withdrawn while others received a single replacement car from the small batch of post-war all-steel 2-HAL units which were built as replacements.

Only one 2-BIL unit has survived into preservation, namely number 2090, formed of carriages 10656 and 12123, which is in the care of the National Railway Museum, York. This unit is also one of only two pre-war main line EMUs in existence, which are still in original formation. The other is the Class 503, which is kept at the Locomotive Storage Ltd facility in Margate.

Builder	Southern Railway
Max Speed	75 mph (121 km/h)
Introduced	1935-1938
Withdrawn	1971
Wheel Arrangement	Bo'2'+2'2'
System	750V DC Third Rail

Length	19.05m
Width	2.82m

Number		Form	Base	Livery
2090	D	10656, 12123	Locomotion - NRM Shildon	047

403

Class 403 Brighton Belle 5-BEL EMU

The Southern Railway (SR) gave the designation 5-BEL to the five-car all-Pullman electric multiple units which worked the prestigious Brighton Belle trains between London Victoria and Brighton. These units survived long enough in British Rail ownership to be allocated TOPS Class 403. Between 1933 and 1935 the units were designated 5-PUL (the 'PUL' code was then used for the 6-PUL units).

The SR electrified the London Victoria to Brighton line in the early 1930s, and full electric services commenced over the route from 1 January 1933. For the high-profile Southern Belle Pullman train three five-car units, consisting entirely of Pullman cars, were built. All 15 cars were built by Metropolitan Cammell. In June 1934 the Southern Railway renamed the Southern Belle as the Brighton Belle.

As they were Pullman cars, owned by the independent Pullman Car Company (UK), the individual carriages were numbered in its series, taking numbers 279 to 293, and the first-class cars were given women's names while the third (from June 1956, second) class cars carried less-inspiring Car No xx designations, derived from the second and third digits of the Pullman Car Company's number. However, the units together were allocated numbers in the SR series, originally taking 2051-2053, which was revised in January 1937 to 3051-3053.

System	750v DC
Introduced	1932
Withdrawn	1972
Builder	Metro Cammell
Max Speed	75mph

Number	Name		Note	Base	Livery
279	HAZEL	P	TPFK	Peak Rail	
280	AUDREY	*99537*	TPFK, VSOE SL90 Set		PUL
281	GWEN	*99546*	TPFK, VSOE SL90 Set		PUL

282	DORIS		P	TPFK		
283	MONA		S	TPFK, Awaiting restoration.		PUL
284	VERA	*99543*		TPFK, VSOE SL90 Set		PUL
285	Car No. 85	*85*	S	TPT, (Brighton Belle Project at Ramparts - Derby		PUL
286	Car No. 86	*86*	S	TPT, (awaiting restoration)		BLG
287	Car No. 87	*87*	P	TPT	Peak Rail	
288	MABEL	*Car No. 88, 88, 3051, 3050, 99288*	P	DMBPT	Locomotive Services, Crewe	
289	Car No. 89	*89*	R	DMBPT, to be restored as a static dining car	Carriages of Cambridge	
290	Car No. 90	*90*	X	destroyed in fire 1991		
291	BERYL	*Car No. 91, 91, 3052, 3050, 99291*	P	DMBPT	Locomotive Services, Crewe	
292	Car No. 92	*99547, 92*	S	DMBPT		PUL
293	CELIA	*99593, 99548, 93, Car No. 93*	P	ex-DMBPT now restored as a private bar car on the Belmond Pullman		PUL

404

Class 404 4-COR, 4-BUF, 4-GRI & 4-RES EMU



The Southern Railway (SR) gave the designations 4-COR, 4-RES, 4-BUF and 4-GRI to the different types of electric multiple unit built to work the route between London Waterloo and Portsmouth Harbour. The 4-COR type units survived long enough in British Rail ownership to be allocated TOPS Class 404. The COR designation had previously been used for the 6-PUL units and was reused by them during World War II when the Pullman car was stored, but this stock was different from the 4-COR units.

The SR electrified the London Waterloo to Portsmouth Harbour via Woking line in the mid-1930s, and full electric services commenced over the route from April 1937. For this service, 29 4-COR units (4-car Corridor units, numbered 3101–3129) and 19 4-RES units (4-car Restaurant units, numbered 3054–3072) were built.

Corridor connections were provided throughout each unit, including between units. This gave them a distinctive front-end appearance as the headcode display was placed on the opposite side of the gangway connection to the driving cab window, leading to their nickname of Nelsons.

For services from London Victoria to Portsmouth via Dorking, another 26 4-COR units (numbered 3130–3155) were built, together with 13 4-BUF units (4-car Buffet units, numbered 3073–3085). These new units followed the same design as the Phase 1 stock, except that the restaurant and kitchen facilities of the 4-RES units were replaced by the simpler provision of a buffet.

One complete unit was saved for preservation, as were a number of individual vehicles.

System	600-750V DC 3rd Rail
Width	2.96m
Introduced	1937
Withdrawn	1972

Wheel Arrangement	Bo'2'+2'2'+2'2'+2'Bo'
Builder	SR Lancing Works (underframes), Eastleigh Works (bodywork)
Max Speed	75mph

Number		Form		Note	Base	Livery
10096	*3142*	P		TSK	Hope Farm, Sellindge	GRN
11161	*3142*	P		DMBSO	East Kent Railway	GRN
11187	*3142, 3135, S11187S*	P		DMBSO	East Kent Railway	
11201	*3142*	P		DMBSO	Hope Farm, Sellindge	GRN
11825	*3142*	P		TCK	Hope Farm, Sellindge	GRN
3131		P	11179	DMBSO	Locomotion - NRM Shildon	

405

Class 405 4-SUB & 3-SUB EMU



Dan Cardwell

The Southern Railway (SR) and the British Railways (Southern Region) (BR(S)) used the designation Sub to cover a wide variety of electric multiple units that were used on inner-suburban workings in the South London area. The designation 'Sub' was first officially used in 1941 to refer to newly built 4-car units. However, during the 1940s large numbers of earlier '3-Car Suburban Sets' were increased to four cars by the addition of an

'Augmentation' trailer, and became part of the 4-Sub category. The SR and BR (S) continued to build or else rebuild 4-car units to slightly different designs which became part of the 4-Sub Class. Many of these later examples survived in passenger use until late 1983, by which time British Rail had allocated to them TOPS Class 405.

A handful of Sub stock carriages have survived in preservation.

Max Speed	75 mph 121 km/h
Introduced	1941
Withdrawn	1983
System	750V DC 3rd Rail
Width	2.74m
Builder	Eastleigh Works
Weight	136t

Number			Form	Note	Base	Livery
1293	*4308*	D	8143	DBMT	National Railway Museum	GRN
4732		S	12795, 12354, 10239, 12796	12796 at Ramparts Barrow Hill for restoration works	One:One Collection	GRN

411

Class 411 4-CEP & 3-CEP EMU

The British Rail Class 411 (4CEP) electric multiple units were built at Eastleigh works from 1956–63 for the newly electrified main lines in Kent. These units, which used a British Railways Mark 1 bodyshell, were based on the earlier Southern Railway 4 COR design, built in 1937. Variants of the class 411 design included the class 410 and class 412 4 BEP units, which contained a buffet car in place of a standard trailer. They were later used on services in Sussex and Hampshire; following the privatisation of British Rail in 1995, the units were used by the Connex South Central, Connex South Eastern and South West Trains franchises.

In early 1999, five units were converted to Class 411/9 3CEP units, with the removal of the second-class open trailer. These removed trailers had not had so much work carried out on them at the time of refurbishment (as they were basically unchanged apart from cosmetic appearance and installation of hopper windows) and many had become severely corroded. This was necessary, as some stations could only accommodate 11 carriages. A further 13 units were later converted. The 3 CEP units were renumbered into the series 1101–1118.

The fleet's lifespan was 49 years, these units are the longest-lived BR Mark 1 EMUs. Four complete units have been saved for preservation.

System	750V DC 3rd Rail
Builder	BR Eastleigh
Width	2.82m
Height	3.81m
Introduced	1956
Withdrawn	2005
Weight	159.4t
Max Speed	90mph

Number			Form	Note	Base	Livery
411198	*1198, 2314, 2304, 7175*	P	61736, 70573, 61737	DMBSO+TBCK+DMBSO	Eden Valley Railway	BRB
411589	*1589, 7178*	X	61742, 61743	DMBSO+DMBSO		
62385		X		MBSO		
69013		S		TRSB	Eden Valley Railway	
70262		P	70262	operates with 201001 (1001)	St. Leonards Railway Engineering	GRN
70273		P	70273		East Kent Railway	BBG
70284		P	70284		Northamptonshire Ironstone	NSE
70296		P	70296		Northamptonshire Ironstone	NSE
70345		P	70345		Sutton Bridge	NSE
70508		X	70508			BBG
70510		P	70510		Northamptonshire Ironstone	NSE
70527		P	70527		Whitwell & Reepham Railway Station	CHC
70547		D	70547		Source Farm Shop, Hungerford Park	CX
70549		P	70549		East Lancashire Railway	GRN
70576	*S70576, 7178, 1589, R006*	P	70576		Great Central Railway	CAR

SC70292	*70292*	P	70292		One:One Collection	Red/Cream
SC70531	*70531*	P	70531	In use as restaurant seating	Grantown on Spey East Heritage Centre	Red/Cream

412

Class 412 4-BEP EMU



The British Rail Class 412 (4BEP) electric multiple units were built at Eastleigh works from 1956–63 for the newly electrified main lines in Kent. These units, which used a British Railways Mark 1 bodyshell, were based on the earlier Southern Railway 4 COR design, built in 1937. Variants of the class 412 design included the class 411 (4CEP) and class 412 4 BEP units, BEP units contained a buffet car in place of a standard trailer. They were later used on services in Sussex and Hampshire; following the privatisation of British Rail in 1995, the units were used by the Connex South Central, Connex South Eastern and South West Trains franchises.

The 4 BEP units were similar to the standard units, but contained a buffet car in place of the second class open trailer. The buffet trailer had a dining room, a large kitchen pantry, and a buffet counter with some seats. 22 units were built, initially numbered in the range 7001-7022. The first two units (7001-7002) were prototypes, and were followed by 'Phase 1' units (7003-7012) and 'Phase 2' (7013-7022). The 4 BEP fleet were classified as Class 410 by British Rail under the new computer numbering system introduced in 1968.

In 2002, the buffet cars from the 4 BEP units were inserted into seven standard 4 CEP units, which were renumbered 2321–2327 (reclassified as Class 412/2). The displaced carriages were inserted into the 4 BEP units, which were renumbered 2311–2317 (reclassified as Class 412/1). The reason behind this was that the 4 BEP units had faster acceleration, and the buffet cars were no longer used. Therefore, the reformations allowed a higher seating capacity in the faster units.

System	750V DC Third Rail
Width	2.82m
Height	3.81m
Introduced	1956
Withdrawn	2005
Builder	Eastleigh Works
Weight	159.4t
Max Speed	90mph

Number			Form	Note	Base	Livery
412311	*2311, 2301, 7199*	A	61804, 70607, 70539, 61805		Eden Valley Railway	SWR
412315	*2305, 7016*	A	61798, 70354, 70229, 61799		Eden Valley Railway	SWR
7105	*2325, 1537, 412325*	R	61229, 70235, 69345, 61230	Driving cars at Arlington Eastleigh for rebuilding	Epping & Ongar Railway	UUU

414

Class 414 2-HAP EMU



4308 at Locomotion Shildon

Dan Cardwell

The British Rail Class 414 (or 2 HAP) were two-car electric multiple units that were built between 1956 and 1963. They were withdrawn in 1995.

The class formed part of the Southern Region's express fleet and were fitted with the standard 90 mph (140 km/h) express gear ratio, for such units. This was primarily because a number of their duties involved working in multiple with the 4 CEP Express fleet, also of 90 mph maximum speed. Three batches (209 units) were built.

Modernisation of the units began in 1983, when 10 DMBSO from withdrawn units were converted for use on the Gatwick Express service in conjunction with converted loco-hauled Open First (FO) and Open Second (SO) vehicles and class 73 locomotives. These vehicles were classified as Class 489 with "units" numbered 9101–9110 and individual carriage numbers 68500–68509.

Two complete units have been preserved; (with a further four driving motor coaches, see Class 489)

System	750V DC 3rd Rail
Builder	BR Eastleigh
Width	2.819m
Introduced	1957
Withdrawn	1995
Max Speed	9mph

Number	Form	Note	Base	Livery

4308	D	61275, 75395	DMBS+DTC	Locomotion - NRM Shildon	
4311	S	61287, 75407	DMBS+DTC (location of 75407 unconfirmed)	Port Elphinstone, Inverurie	NSE
61292			DMBSO	Ecclesbourne Valley Railway	

415

Class 415 4-EPB EMU



Dan Cardwell

The British Rail Class 415 (or 4EPB) was a suburban 750 V DC third rail electric multiple unit commissioned by the Southern Region of British Railways. Built between 1951 and 1957, it became the most numerous class on the region after the withdrawal of the 4SUBs. The final trains were withdrawn in the 1990s. The British Rail designation Class 415 was applied to a group of four coach, 3rd rail electric multiple units constructed between 1951 and 1961 and in service from 1951 to 1995.

The 4EPB units (4-car Electro-Pneumatic Brake) were a development of the SR 4Sub design, but incorporating electro-pneumatic brakes, unit-to-unit buckeye couplings, roller blind headcode displays in place of the stencil holders used previously, and without external doors to the driver's cab.

One unit, Class 415/1 unit 5176, survives. One of the two "heritage" units (along with 5001), it was repainted in British Rail blue in the early 1990s and survived until the end of EPB workings in 1995. After spending several years in storage, in 1999 the unit was split up. Class pioneer 5001 was also stored at Kineton Ministry of Defence base following

withdrawal in 1995 but no buyer could be found, and the unit was stripped and sold for scrap in 2004.

System	750V DC 3rd Rail
Builder	BR Eastleigh
Max Speed	75mph
Introduced	1951
Withdrawn	1995

Number			Note	Base
14351	*5176*	P	DMBSO	Llanelli & Mynydd Mawr Railway
14352	*5176*	S	DMBSO	Hope Farm, Sellindge
15354	*5176, S15354S*	S	TSO for spares	Hope Farm, Sellindge
15396	*5176*	X	TSO	
5001		X		

416

Class 416 2-EPB EMU



British Rail Class 416 (2-EPB) was a class of third-rail electric multiple units in service between 1953 and 1995. They were intended for inner suburban passenger services on London's Southern Electric network. There were two subclasses of Class 416: Class 416/1 to an SR design on salvaged 2-NOL underframes, built between 1953 and 1956, and Class 416/2 based on a British Railways Mark 1 coach design. In the 1980s some 2 EPB units were

used on the North London Line between Richmond and North Woolwich; these units were equipped with window bars.

Fifteen units built in 1954/5 to the BR Mark I coach design were built for the third rail electrified Tyneside Electric lines. They were built at Eastleigh and were the last Tyneside third rail EMUs built. They followed the new British Railways standard design for suburban rolling stock: similar units were built at the same time for use on South London suburban routes, but the Tyneside units had features in keeping with previous Tyneside EMUs, such as a large brake van to accommodate a large volume of fish boxes and prams; electric headcode lights on the cab front between the windows; and above those a roller destination blind. Unlike units of this style built for service in the south, the Tyneside units had a single first-class compartment.

The final units were withdrawn in 1995. Five units have been preserved, including an ex-Tyneside unit.

System	660-750V DC 3rd Rail
Builder	BR Eastleigh
Length	19.5m
Introduced	1955
Withdrawn	1995
Max Speed	75mph

Number	Name			Form	Note	Livery
6307 [1]		*5667*	S	14573, 16117		
65302 [2]		*6203, 930032, 930204, 977874, 5703*	S			GRN
65304 [3]	DB977875	*930204, 5705, 6205, 930032, 977875*	S		Sandite/De-Icing Unit DB977875	GRN
65321 [4]		*6291, 932053, 5791*	S			GRN
65373 [5]		*5759, 6259*	P			GRN
65379	DB977925	*5765, 6265, 930034, 977925, 930206*	X		Sandite/De-Icing Unit DB977875	GRN
65382		*5768, 6268, 930034, 930206, 977924*	X			GRN
77112 [6]		*6293, 932053, 5793*	S			GRN
77558 [7]		*5759, 6259*	O			GRN

Notes
1: Hope Farm, Sellindge
2: Nemesis Rail, Burton-on-Trent
3: Nemesis Rail, Burton-on-Trent
4: Battlefield Line
5: Southall
6: Battlefield Line
7: Nemesis Rail, Burton-on-Trent

419

Class 419 MLV Battery Motorised Luggage Van



The British Rail Class 419 Motor Luggage Vans (or MLV) were battery electric multiple unit cars built from 1951-61 by BR at Eastleigh Works. Each MLV unit is essentially a motorised BG carriage, with a driver's position at each end. Each vehicle has two luggage compartments and a guard's compartment.

By 1963, it was discovered that one luggage carriage was insufficient for the boat train service. Some trains were operated with paired MLVs, which resulted in a shortage of the vehicles. To overcome the problem, six Trailer Luggage Vans (TLV) were introduced in 1968 and kept in use alongside the MLVs until 1975. These were numbered 68201-68206 as Class 499 and were conventional BG carriages, except for having their gangway ends sealed from use.

After withdrawal from normal service, the entire fleet was transferred to departmental service as Class 931 tractor units. All but two of the units have been preserved.

Builder	BR Eastleigh
Introduced	1959
System	750DC 3rd Rail
Length	19.64m

Width	2.82m
Height	3.90m
Withdrawn	2004
Weight	46.2t
Max Speed	90mph

Number			Note	Base	Livery
68002	*S68002, 9002*	A		Southall	NSE
68003	*S68003, 9003*	A		Eden Valley Railway	GRN
68004	*S68004, 9004*	O		Nemesis Rail, Burton-on-Trent	GRN
68005	*S68005, 9005*	A		Eden Valley Railway	
68008	*S68008, 9008*	R		Southall	UUU
68009	*S68009, 9009*	R		Southall	GRN
68010	*S68010, 9010*	D	In use as the Emporium	Eden Valley Railway	CAR
S68001	*68001, 9001*	A		Southall	GRN

420

Class 420 & 422 4-BIG EMU

The 4Big units were similar to the 4CIG units but contained a buffet car in place of the intermediate trailer. These units were built in two batches. 'Phase 1' units were built in 1965/66 and were numbered 7031-48. 'Phase 2' units were built in 1970 and were numbered 7049-7058. The 4Big fleet were initially classified as Class 420 by British Rail under the TOPS system introduced in 1968, and then Class 422.

Only two units have been preserved, in addition numerous buffet cars from 4Big units have also been preserved

Width	2.82m
Height	3.89m
Introduced	1964
Withdrawn	2010
Builder	Holgate Road carriage works
Weight	152t
Max Speed	90mph
System	750V DC Third Rail

Number	Note	Base	Livery

69302	*7032, 2101, 2251, 1276*		TSRB	Abbey View Disabled Centre	
69304	*7034, 2110, 2260, 1299*		TSRB	Northamptonshire Ironstone	GRN
69310	*7040, 2105, 2255, 1290*	X	TSRB		
69316	*7046, 2108, 2258, 1296*		TSRB	Waverley Route Heritage Centre	MAR
69332			TRSB	Swanage Railway	GRN
69335			TRSB	Eden Valley Railway	
69337	*1001, 201001, 7058, 2210*		TSRB	St. Leonards Railway Engineering	GRN
S69306			Buffet car only. Static buffet at Tunbridge Wells	Spa Valley Railway	

421

Class 421 4-CIG EMU

The British Rail Class 421 (4CIG) electric multiple units were built at BR's Holgate Road carriage works between 1964 and 1972. Units were built in two batches and were initially introduced on services on the Brighton Main Line. Later units were introduced on services to Portsmouth.

The standard units contained only passenger accommodation and formed the bulk of the fleet. They were unusual in that all four traction motors were mounted on one non-driving motor coach. Units consisted of two driving trailers, sandwiching the non-driving motor coach and an intermediate trailer.

Only two units have been preserved.

System	750V DC Third Rail
Width	2.82m
Height	3.89m
Introduced	1964
Withdrawn	2010
Builder	Holgate Road carriage works
Weight	152t
Max Speed	90mph

Number			Form	Note	Base	Livery
421306	*1306, 1819, 7373*	P	71041	TSO only. In use as office	Hever Station	GRN

421399	*1399, 2256, 1297, 7397*	P	76747, 62385, 70508, 76818	76818 & 70508 scrapped. Parts of 76818 in the cab yard	East Kent Railway	
421497	*1497, 1883, 1214, 7414*	P	76764, 62402, 69318, 76835	4-CIG	Lavender Line	BLG
421498	*1498, 1888, 1223, 7423*	P	76773, 62411, 76844	3-CIG	Epping & Ongar Railway	GRN
421499	*1499, 1394, 2251, 1276, 7376*	P	76726, 62364, 71080, 76797	62364 Only survivor of unit. Rest scrapped.	East Kent Railway	
421499	*62364, 1499, 1394, 2251, 1276, 7376*	P	62364	Part of 421499	East Kent Railway	
421884	*1884, 1217, 7417*	P	71085	To be restored as a cafe	Old Ambulance Station, Bexhill	
76762	*7412, 1212, 1881*	S		DTCL	East Kent Railway	NSE

423

Class 423 4-VEP, 4-VIP & 4-VOP EMU



Dan Cardwell

The British Rail Class 423 (4 VEP), electric multiple unit passenger trains were mostly built by British Rail (BR) at York Works from 1967 to 1974, although the MBSOs and TSOs of the first 20, 7701-7720, were built at Derby Works. They have manually opening doors next to every seating row and were the last coaching stock built in this pattern for BR. They were mostly found working outer-suburban services in South London and rural services in Kent, Sussex and Hampshire, up to 2005. The fleet had a working life of 38 years.

So far two complete units and two individual driving trailers have been preserved. In addition, the former 4TC driving vehicle from set 3582 has been preserved.

System	750V DC Third Rail
Length	20.29m
Width	2.82m
Height	3.89m
Introduced	1967
Withdrawn	2005
Builder	Derby Works & York Works
Weight	157.5t
Max Speed	90mph

Number	Form	Note	Base

3417 [1] [2]	*7717, 3017, 423417*	P	76262, 62236, 70797, 76263	Owned by Bluebell Railway, being restored to run on the mainline	Southern Electric Traction, Strawberry Hill
3545	*7861, 3161, 423545*	P	76875	76875 is preserved	East Kent Railway
3568	*7867, 3167, 423568*	P	76887		Mizens Railway
62266	*3905, 7753, 3053, 3463, 423905*	S			Peak Rail
62321	*3918, 3532, 3099, 7799, 423918*	S			Rampart Engineering, Barrow Hill
70904	*3905, 7753, 3053, 3463, 423905*	P			East Kent Railway
76397	*3905, 7753, 3053, 3463, 423905*	P			East Kent Railway
76398	*3905, 7753, 3053, 3463, 423905*	X			
76527	*3918, 3532, 3099, 7799, 423918*	X			
76528	*3918, 3532, 3099, 7799, 423918*	S			Peak Rail

Notes
1: Name: Gordon Pettitt
2: Livery: SBB

442

Class 442 5-WES Wessex Express EMU

The British Rail Class 442 (5-WES) Wessex Electrics were electric multiple unit passenger trains introduced in 1988 by Network SouthEast on the South West Main Line from London Waterloo to Weymouth to coincide with the electrification of the line from Bournemouth. Twenty-four five-car units were built by British Rail Engineering Limited's Derby Litchurch Lane Works.

The class holds the world speed record for a third-rail train, having attained 109 mph (175 km/h) on a test run prior to entering service.

In 2016 a driving car from 442401 was nominated for the National Collection. After the National Railway Museum declined to take the nominated carriage, 77382, it was placed in the custody of Northumbria Rail, Bedlington.

System	750V DC Third Rail
Length	23m
Width	2.74m
Height	3.81m
Introduced	1988
Withdrawn	2020
Builder	British Rail Engineering Limited Derby
Max Speed	100mph

Number		Note	Base
77382	P	Ex 442401 - DTS	Northumbria Rail, Eastleigh Works

455

Class 455 EMU

The British Rail Class 455 is a Mark 3-based electric multiple unit (EMU) passenger train built by BREL. Upon their introduction, they replaced the Class 508s and also the ageing Southern Railway slam-door stock on commuter services out of London Waterloo. They were mostly used in Greater London, Surrey and also by Southern

The Class 455 was originally to be classified as the Class 510, basically a 750 V DC version of the Class 317. However, as the chopper control system at the time was not considered robust enough for the electrically rougher third-rail Southern Region, they were fitted with GEC Traction camshaft-control systems instead, and the Class 510 designation was changed to Class 455.

The class has the same bodyshell as the Class 317 and Class 318, which is based on the MKIII, but with a steel construction as opposed to aluminium alloys like PEP-based classes. As they were designed for inner suburban services, they do not feature first-class seating, air conditioning or toilet facilities, and are restricted to 75 mph.

They are currently being replaced by the Class 701 EMU on the South Western Railway network.

One full unit has been preserved. A significant number have been scrapped.

Formation	DTSO+MSO+TSO+DTSO
System	750 V DC 3rd rail
Introduced	1983
Builder	BREL York
Power	1000 kW
Max Speed	75mph

Number	Name			Form	Base	Livery
455871	Roy Watts MBE - Chairman of the Bluebell Railway Preservation Society	*5871*	P	77719, 62779, 71707, 77720	Southern Electric Traction, Strawberry Hill	SWS

466

Class 466 Networker

The Class 466 EMUs were built between 1993 and 1994 by Metro-Cammell in Washwood Heath, for the Network SouthEast sector of BR.

As part of the privatisation of BR, all were sold to Angel Trains. They were operated by Network SouthEast until 1996, then by Connex South Eastern until 2003, South Eastern Trains until 2006 and Southeastern to the present day.

One unit so far has been preserved.

Formation	DMSO-DTSOL
System	750 V DC 3rd rail
Introduced	1993
Builder	Metro-Cammell
Power	1,120kW
Max Speed	75mph
Seats	168

Number		Form	Base	Livery
466043	P	64902, 78354	Llanelli & Mynydd Mawr Railway	SE2

483

Class 483 ex 1938 Tube EMU



The British Rail Class 483 electric multiple units were originally built as 1938 tube stock units for London Underground. They were extensively refurbished between 1989 and 1992 by Eastleigh Works, for use on services on the Isle of Wight's Island Line. This was despite having already been used for nearly 50 years on the London Underground network. The units replaced the even older and life-expired British Rail Classes 485 and 486 units which were introduced in 1967 but were originally built as 'Standard' stock units for the London Electric Railway in 1923.

The trains were 83 years old when they were withdrawn in January 2021; they were the oldest passenger trains in Great Britain remaining in regular passenger service at the time. They were withdrawn on 3 January 2021, with the line closed from 4 January until 1 November 2021 for upgrade works, after which they were replaced by Class 484s. Of the six units present on the Island at the time of their withdrawal, all have been confirmed for preservation.

System	660V DC 3rd Rail
Length	15.94m
Introduced	1989
Withdrawn	2021
Builder	Metropolitan-Cammell
Power	500kW
Weight	55t
Max Speed	45mph

Number	Name	Form	Note	Livery

002	RAPTOR	*483002*	X	122, 225		
004 [1]	T-REX	*483004*	P	124, 224		LUL
006 [2]	TERRY**	*483006*	P	126, 226		LUL
007 [3]	Jess Harper	*483007*	P	127, 227	1938 LUL branding on sides and windows.	LUL
008 [4]	IGGI**	*483008*	P	128, 228	At Sandown for move to Llanelli & Mynydd Mawr Railway	LUL
129 [5]		*10229*	P		Ex 483009	
129 [6]		*10289, 483009, 009*	P		DMSO Converted to an Airbnb	
229 [7]		*11229*	S		Ex 483009	
229 [8]		*483009, 009*	P			LUL

Notes
1: House of Chilli, Branstone
2: Llanelli & Mynydd Mawr Railway
3: Isle of Wight Steam Railway
4: Llanelli & Mynydd Mawr Railway
5: East Somerset Railway
6: Apple Mount, Sudbury
7: Reid Freight Services, Cockshute Sidings
8: Reid Freight Services, Cockshute Sidings

485

BR Class 485 4VEC EMU

The British Rail Class 485 (or 4Vec, later 5Vec) electrical multiple units were originally built for the London Electric Railway from 1923-31 as its 'Standard' tube stock.

They were purchased by British Rail in 1967 and transported to the Isle of Wight to work 'mainline' services on the newly electrified Ryde to Shanklin line, where they worked for an additional quarter of a century. At the time of their purchase the units had already worked for over 40 years on the London Underground, but their introduction allowed the last steam locomotives on the line to be withdrawn.

Formation	DMBSO+TSO+TSO+DMBSO
System	660VDC Third Rail
Introduced	1967 (BR)

Withdrawn	1992
Weight	94t
Max Speed	45mph

Number			Note	Base
5279	*1789, 485043, 27*	D	4w-4RE	LT Museum Acton
7296	*846, 485044, 49*	D	4w-4RE	LT Museum Acton

487

Class 487 Waterloo & City Motor Coach

The British Rail Class 487 electric multiple units were built by English Electric in 1940, for use on the Waterloo & City line. Twelve motor carriages (DMBSO), numbered 51–62, and sixteen trailers (TSO), numbered 71–86, were built. Trains were in various formations, from a single motor carriage, to pairs of motor cars with up to three intermediate trailers.

They were originally classified Class 453 under TOPS but were later reclassified Class 487. The Waterloo & City line was operated as part of the BR Southern Region. Stock was painted in British Railways green livery, which was replaced by BR Blue in the 1970s, a version of all over blue with grey detailing. In 1986, the line came under the ownership of Network SouthEast, and their blue, red and white livery was applied.

The Class 487 units were unique on the British Rail network for a couple of reasons. They did not feature the normal yellow ends because the route they operated was entirely in tunnel where the darkness would render them pointless (the line did not integrate at all with the rest of the network). The units were only fitted with red lights at the ends, thus the front of the train displayed two red lights instead of the more usual white.

1 vehicle has been preserved.

Builder	English Electric
System	750DC 3rd Rail
Introduced	1940
Withdrawn	1993
Transmission	Two EE 190 hp (140 kW) traction motors per DMBSO
Max Speed	35mph
Length	14.98m
Width	2.64m
Height	2.92m

Number	Note	Base	Livery

61	D	DMSO Only	LT Museum Acton	NSE

488

Class 488 Gatwick Express

The British Rail Class 488 are unpowered trailer sets, converted from Mark 2F coaches for the Gatwick Express service from London Victoria to Gatwick Airport.

The sets were converted from conventional locomotive-hauled coaching stock in 1983–1984 and were used in combination with Class 73 electro-diesel locomotives and Class 489 luggage vans. Two variations were converted: 2-car sets (containing first class accommodation) and 3-car sets (containing standard class accommodation only). They are officially formed of two subclasses. The two-car units are classified as Class 488/2 and are numbered in the range 488201–488210 and the three-car sets are Class 488/3 and are numbered 488301–19.

Length	20.13m
Width	2.82m
Height	3.89m
Introduced	1973
Builder	BREL, Derby Litchurch Lane
Weight	105t
Max Speed	90mph

Number			Base
72501	*3382, 488202*	P	Ecclesbourne Valley Railway
72505	*3415, 488206*	P	East Kent Railway
72617	*6086, 488202*	P	Ecclesbourne Valley Railway
72620	*6140, 488311*	P	East Kent Railway
72621	*6108, 488311*	P	Goodsheds, Barry
72629	*6048, 488206*	P	East Kent Railway
72641	*6079, 488204*	X	
72707	*6127, 488308*	P	Lincolnshire Wolds Railway
72710	*6003, 488311*	P	Goodsheds, Barry

489

Class 489 Gatwick Luggage Vans



Chris Harley

The British Rail Class 489 (GLV) is a type of electric multiple unit, specially converted for use on Gatwick Express trains, from London Victoria to Gatwick Airport.

The units were converted from Class 414 driving motors cars, by Eastleigh Works in 1983-84, for use on the new Gatwick Express service. They were used to allow push-pull operations, on the London-end of the rakes of Class 488 stock, with a Class 73 locomotive at the other end and both used for propulsion. The units were used as baggage cars.

Units were given unit numbers in the range 489101-489110, with individual carriages numbered 68500-68509. However, purely for aesthetic purposes, only the last four digits of the set numbers were shown, to fit with the traditional Southern style (maintained until privatisation by British Rail's Southern region) - older (pre-TOPS) units were originally assigned four-digit numbers. The units were originally painted in BR Blue/Grey livery, which was quickly replaced by InterCity livery. The final livery carried by these units is a variation of the InterCity livery, with a claret stripe and Gatwick Express lettering.

Since finishing with Gatwick Express, several units have been sold to other operators. Network Rail have purchased four units, 489102, 489105, 489106 and 489109. They were stored for several years but were returned to use in early-2006 as de-icing and load-bank vehicles. Four units have been preserved on heritage railways.

System	660-750V DC 3rd Rail
Introduced	1983
Builder	BR Eastleigh
Length	19.495m

Width	2.826m
Height	3.861m
Power	370kW
Weight	40.5t
Max Speed	90mph

Number			Note	Base	Livery
9101	*68500*	D	In use as museum coach	Ecclesbourne Valley Railway	ICM
9104	*68503*			Spa Valley Railway	
9107	*68506*	D	In use as static buffet	Ecclesbourne Valley Railway	PUL
9110	*68509*			East Kent Railway	

4TC

Class 442, 491 & 438 4TC Trailer Control Units



MRG

The British Rail TC (Trailer Control) multiple units were unpowered fixed formations of 3 or 4 carriages with a driving position at each end of the set, converted by BR's Holgate Road carriage works from locomotive-hauled Mark 1 carriages in 1966-1967 and 1974. The units built on experience gained from the prototype 6TC unit. In time the 3 car units (3TC, numbered in the series 3xx) were reformed into four car units (4TC numbered in the series 4xx) to match the rest of the fleet and later classified as Class 442. This was later changed to Class 491, under which they spent the majority of their working lives. Shortly before withdrawal they were reclassified Class 438 and the units were renumbered to 8001-8034.

Two complete units and several other vehicles have been preserved.

Length	19.7m
Width	2.8m
Introduced	1966
Withdrawn	1989
Builder	Holgate Road carriage works
Max Speed	90mph

Number			Form	Note	Base	Livery
413			76275, 70824, 70855, 76298		Swanage Railway	
70823	*34970*			4TC, TBSK		MAR
70826	*34980, 417, 8017*	D		Converted from BSK to TBSK	Sandford Station Railway Heritage Centre	CHC
70859		S		FK		
70860	*13019*					MAR
71163	*13097*			4TC, TFK		MAR
76297	*3938*			4TC, DTSO		MAR
76301	*4375, 417, 8017*	P		4TC, DTSO	Swanage Railway	CAR
76302		D		4TC, DTSO	Swanage Railway	CAR
76322		S		Spare DTSO	Swanage Railway	
76324	*4009*			4TC, DTSO		MAR
977335 [(1)]	*76277, 405*	S		DTSO from 4TC no 405	Eastern Rail Services, Yarmouth	BRB

Notes
1: Name: The Rocket

501

Class 501 EMU

The British Rail Class 501 electric multiple units were built in 1955/56 for use on the former LNWR/LMS suburban electric network of the London Midland Region. A total of 57 three-car units were built.

The Class 501 units were built by British Railways in its own workshops at Eastleigh on short 57 ft frames supplied by Ashford. Despite British Railways having recently built modern sliding door trains for electric suburban services in Manchester and Liverpool and on the Great Eastern Main Line (classes 506, 503 and 306 respectively), it was decided that these trains would closely resemble the EPB stock of the Southern Region, which featured individual passenger-operated doors located at each seating bay. The stock differed from that for the Southern Region in that each vehicle was 57 feet (17.37 m) long instead of 63 feet 6 inches (19.35 m), and the vehicles within the units had screw coupling with two buffers instead of the close-coupled single buffer with chain arrangement used on the Southern multiple units.

Currently two vehicles have been preserved.

System	650V DC 3rd/4th Rail
Builder	BR Eastleigh
Length	17.5m
Width	2.9m
Height	3.86m
Introduced	1957
Withdrawn	1985
Power	550kW
Max Speed	70mph

Number			Form	Note	Base
501183	*977349, 936003, 3*	S	61183	DMBS only	Colne Valley Railway
501186		R	75186	DTBS only	DSDC - Bicester

502

Class 502 EMU

The British Rail Class 502 was a type of electric multiple-unit passenger train, originally built by the London, Midland and Scottish Railway at its Derby Works. Introduced in 1940 and withdrawn by 1980, they spent the whole of their working lives on the electrified railway lines north of Liverpool.

The trains were designed to replace older electric trains built by the Lancashire and Yorkshire Railway on the lines from Liverpool Exchange railway station to Southport and Ormskirk. These lines were electrified with a direct current (DC) third rail. The Class 502s entered service between 1940 and 1943. They were DC-only and operated as both three-car and two-car sets, which could be coupled together to form five-car or six-car sets for use on the busier services.

A two-car set (driving motor 28361 and driving trailer 29896) was claimed for preservation by the National Railway Museum. In March 2012 the unit was moved to the base of the Merseyside Transport Trust in Burscough, Lancashire.

System	630V DC 3rd Rail
Builder	LMS Derby
Length	20.27m
Width	2.82m
Height	3.53m
Introduced	1939
Withdrawn	1980
Power	700kW
Max Speed	70mph

Number	Name		Note	Base
28361	John M Eccles	S	DMBSO	Merseyside Transport Trust
29896		S	DTCO	Merseyside Transport Trust

503

Class 503 AM3 EMU

British Rail Class 503 trains were 65 mph (105 km/h) electric multiple units. They were introduced in two batches. The first were in 1938, by the London, Midland and Scottish Railway (LMS) with a further batch (built to a similar design) in 1956 by the then nationalised British Railways (BR). When introduced by the LMS, they were officially known as Class AM3.

They were designed for, and operated on, the Wirral & Mersey lines from Liverpool to West Kirby, New Brighton, and Rock Ferry. There were few places on their network of closely spaced stations to attain their maximum speed, except for the open section between Moreton and Meols.

All but one set were withdrawn and scrapped by 1985. The final set was used on special Merseyrail services until 1988, and this preserved set was kept at the Electric Railway Museum near Coventry until moved to the Locomotive Storage Ltd warehouse at Margate. Though never carried on the unit, the set was numbered under the BR TOPS code as 503 019.

System	650V DC 3rd or 4th Rail
Builder	Metro Cammell of Saltley (Motor Coaches) & Birmingham RCW (Underframes)

Width	3.02m
Height	3.48m
Introduced	1938
Withdrawn	1985
Wheel Arrangement	Bo'Bo'+2'2'+2'2'
Power	400kW
Max Speed	65mph

Number			Note	Base	Livery
28690	*503019*	S		Cambrian Railway Trust, Llynclys	MAR
29289	*503019*	X			MAR
29720		S	likely to be scrapped	Reid Freight Services, Cockshute Sidings	MAR
29720	*503019*	X			MAR

504

Class 504 EMU

The British Rail Class 504 was a unique type of electric multiple unit that ran on 1200 V DC third rail with side-contact current collection. All other mainline UK third rail has the electric "shoe" on top of the rail. The type was used only on the Bury Line between Manchester and Bury. They were built in 1959 at Wolverton Works, and the body was a standard type used for several electrification schemes of the time, but the high DC voltage through a side-contact third rail was unique in Britain.

The trains replaced the previous 5-car units built by the Lancashire & Yorkshire Railway for the route, which had inaugurated this electrification scheme in 1916. All were withdrawn in 1991 when the line was closed for conversion to form part of the Manchester Metrolink light rail system. One unit, is preserved at the East Lancashire Railway.

System	1200V DC Side Contact 3rd Rail
Builder	BR Wolverton
Length	19.52m
Width	2.74m
Height	3.84m
Introduced	1959
Withdrawn	1991
Power	421kW
Max Speed	65mph

Number		Form	Base
504451	R	65451, 77172	East Lancashire Railway

505

Class 505 Altrincham Electric units

British Railways Class 505 were 1,500 V DC EMUs introduced in 1931 by the Manchester, South Junction and Altrincham Railway (MSJAR). Although assigned to TOPS Class 505 by BR, these units were withdrawn before the TOPS numbering system came into common use for multiple units, and the Class 505 designation is very rarely used. Following the 1923 Grouping, the MSJAR company was owned jointly by the LMS and LNER. It operated a 13.7 km route between Manchester London Road (now Manchester Piccadilly) and Altrincham in Cheshire. The MSJAR was electrified in the early 1930s on the 1,500 V DC overhead system.

Twenty-two 3-car EMUs and two spare power cars were built for the new electric service, which started on 11 May 1931. These trains were based at Bowdon depot and ran exclusively between Manchester and Altrincham for forty years. In 1939, eight additional trailers were added, both new build and second-hand conversions, inserted into eight of the 3-car sets, and these allowed 7-car trains to be run on many peak hour services.

In April 1971, all the Class 505 Altrincham Electric units were withdrawn when the line was converted from 1,500 V DC to 25 kV 50 Hz AC. Two centre trailer cars were purchased by the Altrincham Electric Railway Preservation Society and moved to the Yorkshire Dales Railway (now Embsay and Bolton Abbey Steam Railway). In 1983, they were moved to the Midland Railway - Butterley in Derbyshire where they are undergoing restoration. Here they joined centre trailer coach M29663 which had been bought by Derby City Council. This coach was broken up in 2006. No driving coaches have been preserved.

Formation	DMBT+TC+DTT
System	1500V DC
Introduced	1931
Withdrawn	1971
Builder	Metropolitan-Cammell
Transmission	4x 328 hp. GEC traction motors

Number			Note	Base
29663	*M29663, 114*	X	TC	
29666	*M29666, 117*	R	TC	Midland Railway - Butterley
29670	*M29670, 121*	R	TC	Midland Railway - Butterley

507

Class 507 Merseyside EMU



507001 at the Greatest Gathering

Dan Cardwell

The British Rail Class 507 was built by British Rail Engineering Limited at Holgate Road carriage works in two batches from 1978 to 1980. They are a variant of British Rail's standard 1972 design for suburban EMUs derived from PEP stock, which eventually encompassed 755 vehicles over five classes (313, 314, 315, 507 and 508). They have worked on the Merseyrail network from new.

In March 2024, the Class 507 Preservation Society reached an agreement to preserve 507001 after the chairman of the society bought the unit for £1 from Angel Trains.

Diagram	30906, 30907, 30908
Formation	BDMSO-TSO-DMSO
System	600-750V DC Third Rail
Length	57.52m total
Width	2.82m
Height	3.582m
Introduced	1978
Wheel Arrangement	Bo'Bo'+2'2'+Bo'Bo'
Builder	BREL Holgate
Power	656 kW
Weight	98.28t
Max Speed	75 mph
Wheelbase	Over bogie centres: 14.17 m
Brakes	Electro-pneumatic (disc) and rheostatic
Heating	Electric heating (ducted warm air)

Number		Form	Base	Livery
507001	P	64367, 71342, 64405	Alstom Ltd, Derby	BLG

508

Class 508 4PER Merseyside EMU

The British Rail Class 508 (4PER) was a class of electric multiple unit passenger train built by British Rail Engineering Limited, at Holgate Road carriage works, York, in 1979 and 1980. They were a variant of British Rail's standard 1972 design for suburban EMUs, eventually encompassing 755 vehicles and five classes (313/314/315/507/508).

They mostly worked on the Merseyrail network from 1982 until withdrawal on 16 January 2024.

Formation	DMSO-TSO-TSO-BDMSO
System	750-850V DC Third Rail
Length	19.80m (19.92m trailers)
Width	2.82m
Height	3.582m
Introduced	1979
Withdrawn	2024
Builder	BREL Holgate
Power	656 kW
Max Speed	75 mph
Wheelbase	14.17m
Brakes	Electro Pneumatic Discs & Rheostatic
Bogies	BREL BX1

Number			Form	Base
508201	*64649, 508101*	P	64649	East Kent Railway

APT-E

Advanced Passenger Train Evaluation



Dan Cardwell

The APT-E, for Advanced Passenger Train Experimental, was the prototype Advanced Passenger Train tilting train unit. It was powered by gas turbines, the only multiple unit so powered that was used by British Rail. The APT-E consisted of two driving power cars (PC1 and 2) and two trailer cars (TC1 and 2). Each power car was equipped with four Rover-built Leyland 2S/350 gas turbines (and a fifth for auxiliary power supplies), which initially produced 300 HP each but were progressively uprated to 330 HP. Two GEC 253AY nose suspended traction motors provided the traction on the leading bogies. The vehicles were manufactured from aluminium and were approximately 70 ft long (21 m), with articulated bogies between them.

The unit was only intended for testing and was never used in ordinary public service, although it did carry office staff and the occasional dignitary on trial runs. When its period of testing was complete, in June 1976, it was sent to the National Railway Museum, York for preservation. It is now based at the NRM's Locomotion Museum in Shildon.

Engine	Leyland 2S/350 gas turbines
Transmission	Electric
Builder	BR Derby
Introduced	1972
Withdrawn	1976
System	Gas Turbine
Max Speed	156mph

Number	Form	Base

APT-E	D	PC1, TC1, TC2, PC2	Locomotion - NRM Shildon

BEMU

Battery Electric Multiple Unit

The Battery Electric Multiple Unit was an experimental two-car battery electric multiple unit, converted from the prototype Derby Lightweight Diesel multiple units. The train was powered by many lead-acid batteries, and was used on the Deeside Railway from Aberdeen to Ballater in Scotland from April 1958 until it was finally withdrawn in December 1966.

The North of Scotland Hydro-Electric Board initiated the design and was a joint sponsor. The board promised to supply power at three farthings per unit for a fixed two-year period. It provided a 6,600 V supply to a charger at Aberdeen's platform 1 and 11 kV to a Ballater charger.

The estimated cost of the fit-out was £50,000, with the two coaches accounting for almost half of that. Because each set of batteries weighed about eight tons, the underframe of the carriages needed strengthening, at a budgeted cost of £2,000. Motors, conduits and cabling were costed at £5,000. The unit was equipped with a new type of battery in the early 1960s, but subsequently suffered a series of small fires in the battery areas and was withdrawn from service, it returned to use for a period before closure of the line in 1966.

The train then spent a short time in storage, before being transferred to departmental use as test train "Gemini" (or "Laboratory 16") for use at the Railway Technical Centre, at Derby. It lasted in this role until it was withdrawn in 1984, and was eventually bought for preservation at the proposed West Yorkshire Transport Museum, where it was returned to working order. The museum placed it on loan to the East Lancashire Railway in 1994 where, after asbestos was removed and the batteries refurbished, it was used on some services until 2000. After the museum went into liquidation, the unit was purchased by the Royal Deeside Railway in 2001. It is now back in Scotland, where it is undergoing refurbishment.

Builder	BR Derby
Length	17.53m
Introduced	1958
Withdrawn	1984
Max Speed	60mph

Number			Note	Base	Livery
79998	*975003*	A	DMBS	Royal Deeside Railway	GRN
79999	*975004*	A	DTC	Royal Deeside Railway	GRN

Derby Lightweight



The British Rail Derby Lightweight diesel multiple units, were the first such trains to be built en-masse for British Railways. The units were built at BR's Derby Works from 1954 to 1955. The units were built in various formations, including 12 power-twin 2-car units, 84 power-trailer 2-car units, and four 4-car units. The two single car units were originally built as a two-car unit and then split two years later when demand came about.

Body framing was extruded and riveted together. Panelling was welded into continuous sheets and riveted to the frame. Luggage racks were light alloy. The floors had 2 layers of flameproof hardboard, covered with linoleum. To reduce noise and condensation, the inside structure and undersides were sprayed with asbestos. Lighting was by 60-watt, 24-volt lamps charged by belt driven dynamos. Heating was oil fired. Standard mild steel bogies ran on Timken roller bearings.

Length	17.53m
Introduced	1954
Withdrawn	1969
Builder	BR Derby Works
Weight	27t
Max Speed	62mph

Number	Name			Note	Base	Livery
79018		*M79018, RDB975007, 975007*	R	DMBS	Ecclesbourne Valley Railway	GRN
79612		*M79612, E79612*	R	DTCL	Ecclesbourne Valley Railway	GRN
79900	Iris	*M79900, ADB975010*	H	DMBS	Great Central Railway	GRN

BR Steam

2MT

Std Class 2MT



The BR Standard Class 2 2-6-0 is a class of steam locomotive, one of the British Railways Standard classes of the 1950s. They were physically the smallest of the Standard classes; 65 were built.

The design was derived from the Ivatt-designed Class 2 2-6-0, with a reduced cab to enable it to fit into a universal loading gauge, and other standard fittings, most notably a taller chimney, others including the lack of an Ivatt dome and side plates connecting the two sections of the engine. Like the LMS predecessor the BR design had a tender cab to enhance crew protection and visibility when running tender-first. They were all attached to a BR3 type tender. These locomotives are often known by the nickname "Mickey Mouse".

Builder	BR Darlington
Introduced	1952
TE	18,510 lbf
Driving Wheel Dia	5ft
Wheel Arrangement	2-6-0
Boiler Pressure	200 psi
Cylinder Dimensions	16 1/2 in × 24 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	53ft 2 1/2in
Width	8ft 6in

Height	12ft 9 1/2in
Withdrawn	1967

Number	Name			Note	Base	Livery
78018	Borough of Darlington		A	(name not currently carried)	Great Central Railway	BLK
78019		*78054*	A		Great Central Railway	BLK
78022			D		Keighley & Worth Valley Railway	GRN
78059		*84030*	X	Being converted to 84030		

2MT (Tank)

Std Class 2MT Tank

The class was designed at Derby Works and introduced in 1953. The design derived from the LMS Ivatt Class 2 2-6-2T which BR had built after nationalisation. Modifications were made to the Ivatt design including a reduced cab to reduce the loading gauge and some standard fittings. BR classified them 2MT, emphasising a mixed-traffic role.

As most services which required 2MT 2-6-2Ts were already served by the 130 Ivatt engines, B.R. only ordered 30 engines, which eliminated pre-grouping steam locomotives as much as possible on local services.

None of the class survived the cutter's torch. However, four BR Standard Class 2 2-6-0 locomotives did survive, and one of these, 78059, is being rebuilt into 2-6-2T "84030". This takes the next number in the original series. 78059 was chosen primarily because it lost its tender. Further reasons cited by the Bluebell Railway, where 78059 is based, are the suitability of the locomotive class for the railway's service trains, and because the tender version of the class was never allocated to the Southern Region, and hence the tank version (which was allocated there) is far more appropriate for the Bluebell's Southern Region location.

As of 2013, 78059 was considered to no longer exist, as the fitting of the hind engine frame extensions have turned it into 84030.

Wheel Arrangement	2-6-2T
Length	38ft 9 1/2in
Width	8ft 7 1/2in
Height	12ft 9 1/2in

Introduced	1953
Withdrawn	1966
Weight	67.11t
TE	18,515 lbf
Driving Wheel Dia	5ft
Boiler Pressure	200 psi
Num Cylinders	2, outside
Cylinder Dimensions	16 1/2 in × 24 in
Builder	BR Crewe & Darlington
Valve Gear	Walschaerts

Number			Note	Base
84030	*78059*	C	Conversion from 78059	Bluebell Railway

3MT

New Build Std Class 3MT Tank



82045 nearly completed at the Greatest Gathering

Dan Cardwell

The BR Standard Class 3 2-6-2T was a class of steam locomotive designed by Robert Riddles for British Railways. It was essentially a hybrid design, the chassis being closely based on and sharing a number of parts with the LMS Ivatt Class 4, and having a boiler derived from a GWR No.2 boiler as fitted to the GWR Large Prairie 2-6-2T and 5600 Class 0-6-2T tank engines.

The 82045 Steam Locomotive Trust is building a "new" class 3 tank locomotive to carry the next number in line had it been built under BR auspices. The Trust believes that a sprightly

performance will be delivered through the 17½" x 26" cylinders. This, coupled with the modest axle load, will make the locomotive an ideal design for today's heritage railways.

The locomotive is under construction at the Severn Valley Railway with the frames, cab, driving wheels, smokebox and cylinders assembled. Further parts and patterns continue to be amassed. With construction work on the new engine advancing every week the Trust classifies 82045 as the 1001st steam locomotive to a BR Standard design since the commencement of its construction follows that of 72010 Hengist.

Length	40ft 10 1/2in
Width	8ft 6in
Height	13ft
Introduced	1952
Withdrawn	1967
Wheel Arrangement	2-6-2T
Weight	75.24t
TE	21,490 lbf
Driving Wheel Dia	5ft 3in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Cylinder Dimensions	17 1/2 in × 26 in
Valve Gear	Walschaerts
Builder	BR Swindon

Number		Note	Base	Livery
82045	C	82045 Locomotive Trust	Severn Valley Railway	GRN

4MT (2-6-0)

Std class 4MT (2-6-0)



MRG

The BR Standard Class 4 2-6-0 is a class of steam locomotive designed by Robert Riddles for British Railways (BR). The Standard Four Mogul was essentially a standardised version of the LMS Ivatt Class 4 and was primarily intended for freight use. An axle-loading of only 16 long tons 15 cwt meant its route availability was virtually unrestricted. Batches were allocated to every BR region except the Western.

115 locomotives were built to this standard. 4 have been preserved.

Builder	BR Derby, Doncaster & Horwich
Introduced	1952
TE	24,180lbf
Driving Wheel Dia	5ft 3in
Wheel Arrangement	2-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	17 1/2 in × 26 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	60ft
Width	8ft 9 1/2in
Height	13ft
Withdrawn	1968

Number		Note	Base	Livery
76017	*98417*	A	West Coast Railway Co. Carnforth	BLK

76077		R	Some components still at Gloucestershire and Warwickshire Steam Railway	Locomotive Maintenance Services, Loughborough	
76079	*98476*	O		Strathspey Railway	BLK
76084		A	The 76084 Locomotive Company Limited	Swanage Railway	BLK

4MT (4-6-0)

Std class 4MT (4-6-0)



The British Railways Standard Class 4 4-6-0 is a class of steam locomotives, 80 of which were built during the 1950s.

The class was introduced in 1951. They were designed for mixed traffic use on secondary routes where the otherwise ubiquitous BR Standard Class 5 and their predecessors, the Black Fives, would be too heavy. They were essentially a tender version of the standard 4 2-6-4T, with similar characteristics to the GWR Manor Class, but built to the universal loading gauge. They used the same running gear as the tank engine (with the leading bogie from the Standard Class 5), and substantially the same firebox, smokebox and boiler.

Six have been preserved.

Builder	BR Swindon
Introduced	1951
TE	25,520lbf
Driving Wheel Dia	5ft 8in
Wheel Arrangement	4-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	18 in × 28 in

Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	60ft
Width	8ft 9 1/2in
Height	13ft
Withdrawn	1968
Weight	68.99t

Number	Name			Note	Base	Livery
75014	Braveheart	*98414*	A		Dartmouth Steam Railway	BLK
75027			S		Bluebell Railway	GRN
75029	The Green Knight	*98429*	O		North Yorkshire Moors Railway	
75069		*98469*	A		Severn Valley Railway	BLK
75078			A	The Standard 4 Locomotive Preservation Society	Keighley & Worth Valley Railway	BLK
75079			R		Mid Hants Railway	

4MT (Tank)

Std class 4MT Tank



The British Railways Standard Class 4 tank is a class of steam locomotive, one of the BR standard classes built during the 1950s. They were used primarily on commuter and outer suburban services. They were capable of reaching speeds of 75 mph.

On the decision to build the BR standard series of locomotives, a series of class four tank engines was ordered, based on the ex-LMS Fairburn 2-6-4T with some modifications. The lineage of the class could therefore be tracked through the LMS/BR Class 4 2-6-4T locomotives back to the Fowler design of 1927.

155 were built, 15 have been preserved.

Builder	BR Derby, Doncaster & Brighton
Introduced	1951
TE	25,520 lbf
Driving Wheel Dia	5ft 8in
Wheel Arrangement	2-6-4T
Boiler Pressure	225 psi
Cylinder Dimensions	18 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	44ft 10in
Width	8ft 9 1/4in
Height	13ft
Withdrawn	1967
Weight	88.04t

Max Speed	75 mph

Number			Note	Base	Livery
80002		D		Keighley & Worth Valley Railway	BLK
80064		O	80064 Locomotive Fund	West Somerset Railway	BLK
80072		O	80072 Steam Locomotive Co	Llangollen Railway	BLK
80078		A		Mid Norfolk Railway	BLK
80079	*98479*	D		Severn Valley Railway	BLK
80080	*98480*	A		Midland Railway - Butterley	BLK
80097		A	The Bury Steam Locomotive Company Limited	East Lancashire Railway	
80098	*98498*	O		Midland Railway - Butterley	BLK
80100		S		Bluebell Railway	
80104	*80146*	A	running as 80146 in 2017. Southern Steam Trust	Swanage Railway	BLK
80105		P	Locomotive Owners' Group (Scotland) Ltd	Strathspey Railway	BLK
80135	*98435*	O		North Yorkshire Moors Railway	
80136		A		North Yorkshire Moors Railway	BLK
80150		S		Mid Hants Railway	
80151		O	80151 Locomotive Co Ltd	Bluebell Railway	BLK

5MT

Std class 5MT



The British Railways Standard Class 5MT 4-6-0 is one of the 12 standard classes of steam locomotive built by British Railways in the 1950s. It was essentially a development of the LMS Stanier Class 5 4-6-0 ("Black Five") which had been the most successful mixed-traffic type in Great Britain.

A new set of 'standard' locomotives was to be built by British Railways, based on LMS designs and incorporating modern ideas. In particular, the Standard design incorporated features designed to make disposal of the engine after a working "turn" easier: a self-cleaning smokebox and a rocking grate removed the necessity for crews to undertake dirty and strenuous duties at the end of a long shift. This was a necessary investment with the ever-increasing costs of labour following the Second World War.

The original design proposal for the class 5 locomotive had a 4-6-2 wheel arrangement, similar in concept to the Bulleid Light Pacifics that performed impressively during the 1948 Locomotive Exchanges. However, this was deemed unnecessarily large and costly for a class 5 power requirement, so the successful LMS Class 5 4-6-0 design was used as the basis instead.

A total of 172 were built between 1951 and 1957. 5 have been preserved.

Builder	BR Derby & Doncaster
Introduced	1951
TE	26,120lbf
Driving Wheel Dia	6ft 2in
Wheel Arrangement	4-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	19 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts / Caprotti

BR Steam

Length	62ft 7in
Width	8ft 9in
Height	13ft
Withdrawn	1968
Weight	77.22t

Number	Name			Note	Base	Livery
73050	City of Peterborough		O	Peterborough City Council	Nene Valley Railway	BLK
73082	Camelot		A	The 73082 Camelot Locomotive Society	Bluebell Railway	BLK
73096		*98596*	S		Mid Hants Railway	GRN
73129		*98529*	D	Caprotti valve gear	Midland Railway - Butterley	BLK
73156			A	Bolton Steam Locomotive Ltd	Great Central Railway	BLK

6MT

Std class 6MT 'Clan'



Dan Cardwell

The Standard class 6, otherwise known as the Clan Class, was a class of 4-6-2 Pacific tender

steam locomotive designed by Robert Riddles for use by British Railways. Ten locomotives were constructed between 1951 and 1952, with a further 15 planned for construction.

However, due to acute steel shortages in Britain, the order was continually postponed until it was finally cancelled on the publication of the 1955 Modernisation Plan for the re-equipment of British Railways. All of the original locomotives were scrapped, but a replica is being built.

Length	68ft 9in
Width	8ft 8 3/4in
Height	13ft 1/2in
Introduced	1951
Withdrawn	1966
Wheel Arrangement	4-6-2
Driving Wheel Dia	6ft 2in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Walschaerts
Cylinder Dimensions	19 1/2 in × 28 in
Builder	BR Crewe
Weight	89.9t
TE	27,520 lbf

Number	Name		Note	Base	Livery
72010	Hengist	C	Standard Steam Locomotive Company Limited	Diamond Engineering, Sheffield	GRN

7MT

Std class 7MT 'Britannia'



The BR Standard Class 7, otherwise known as the Britannia Class, is a class of 4-6-2 Pacific steam locomotive designed under Robert Riddles for use by British Railways for mixed-traffic duties. 55 were constructed between 1951 and 1954. The design employed results from the 1948 locomotive exchanges undertaken in advance of further locomotive classes being constructed. Three batches were constructed at Crewe Works, before the publication of the 1955 Modernisation Plan.

The Britannia Class design was based on best practice from the pre-nationalisation railway companies in terms of operating efficiency and lower maintenance costs; various weight-saving measures also increased the route availability of a Pacific-type locomotive on the British Railways network. The Britannias received a positive reception from their crews, with those regularly operating the locomotives giving them favourable reports as regards performance.

2 have been preserved.

Builder	BR Crewe
Introduced	1951
TE	32,160lbf
Driving Wheel Dia	6ft 2in
Wheel Arrangement	4-6-2
Boiler Pressure	250 psi
Cylinder Dimensions	20 in × 28 in
Num Cylinders	2, outside

BR Steam

Valve Gear	Walschaerts
Length	68ft 9in
Width	8ft 8 3/4in
Height	13ft 1/2in
Withdrawn	1968
Weight	96t
Max Speed	90 mph

Number	Name			Note	Base	Livery
70000	Britannia	*98700*	A	Royal Scot Locomotive & General Trust	Locomotive Services, Crewe	GRN
70013	Oliver Cromwell	*98713*	O		Great Central Railway	GRN

8P

Std Class 8P 'Duke'



71000 at Crewe Works Open Day Sept 10th 2005

John J Cordrey

The BR Standard Class 8 was a class of a single 4-6-2 Pacific steam locomotive designed by Robert Riddles for use by British Railways. Only the prototype was constructed, named Duke of Gloucester. Constructed at Crewe Works in 1954, the Duke, as it is popularly known, was a replacement for the destroyed LMS Princess Royal Class locomotive number 46202 Princess Anne, which was involved in the Harrow and Wealdstone rail disaster of 1952.

The Duke was based on the BR Standard Class 7 Britannia design. It incorporated three sets of modified Caprotti valve gear, relatively new to British locomotive engineering and more efficient than Walschaerts or Stephenson valve gear. The Duke was regarded as a failure by locomotive crews due to its poor steaming characteristics and its heavy fuel consumption. Trials undertaken by British Railways also returned negative feedback, reporting problems with the poor draughting of the locomotive which resulted in difficulty adhering to the timetables.

The result was an operational period of only eight years. This unique locomotive was saved from being scrapped at Woodham Brothers scrapyard in Barry, Vale of Glamorgan, South Wales when it was purchased by a group of railway enthusiasts who restored it from scrapyard to as-built condition in 13 years. Since then, modifications have been made to the original design, resulting in one of the most efficient and powerful steam locomotives ever to run in Britain.

Builder	BR Crewe
Introduced	1953
TE	39,080lbf
Driving Wheel Dia	6ft 2in
Wheel Arrangement	4-6-2
Boiler Pressure	250 psi
Cylinder Dimensions	18in x 28in
Num Cylinders	3
Valve Gear	Caprotti
Length	67ft 8in
Width	9ft
Height	13ft 1/2in
Withdrawn	1962
Weight	102.87t

Number	Name			Base	Livery
71000	Duke of Gloucester	*98802*	T	Severn Valley Railway	GRN

9F

Standard Class 9F



The British Railways Standard Class 9F 2-10-0 is a class of steam locomotive designed for British Railways by Robert Riddles. The Class 9F was the last in a series of standardised locomotive classes designed for British Railways during the 1950s, and was intended for use on fast, heavy freight trains over long distances. It was one of the most powerful steam locomotive types ever built for British Railways, and successfully performed its intended duties. The class was given the nickname of 'Spaceships', due to its size and shape.

Nine 9F locomotives survived withdrawal from mainline service into preservation: Evening Star became part of the National Collection; eight others were bought directly from BR or from Woodham Brothers scrapyard in Barry, South Wales. Only six members of the class have been restored to running order. 92240 was the first of the class to steam in preservation after restoration work in 1990. Engines from both builders have survived with three Crewe-built engines and six Swindon-built engines. The majority of the class have double chimneys but 92134 is fitted with a single chimney.

Builder	BR Crewe & Swindon
Introduced	1954
TE	39,671 lbf
Driving Wheel Dia	5ft
Wheel Arrangement	2-10-0
Boiler Pressure	250 psi
Cylinder Dimensions	20 in × 28 in
Num Cylinders	2, outside
Length	66ft 2in
Withdrawn	1968

BR Steam

Weight	88.1t
Max Speed	90 mph

Number	Name			Note	Base	Livery
92134		*92043*	A	Temporarily running as 92043	North Yorkshire Moors Railway	BLK
92203	Black Prince		D		Bressingham Steam Museum	BLK
92207	Morning Star		R		Somerset & Dorset Railway	
92212			O		Mid Hants Railway	BLK
92214		*City of Leicester, Leicester City, Cock O' The North*	O		Great Central Railway	BLK
92219			S		Strathspey Railway	
92220	Evening Star	*98920*	D		National Railway Museum	GRN
92240			D		Bluebell Railway	GRN
92245			O	Vale of Glamorgan Council	Bryn Engineering, Blackrod	

GWR

1000 County (Hawksworth)

1000 County Class 4-6-0

The Great Western Railway 1000 Class or County Class was a class of 4-6-0 steam locomotive. Thirty examples were built between 1945 and 1947, but all were withdrawn and scrapped in the early 1960s. A replica locomotive is under construction.

These locomotives were the final and most powerful development of the two-cylinder Saint Class introduced in 1901 and included several features that had already been used on the successful Modified Hall class. Hawksworth had hoped to design a new 4-6-2 express locomotive for post war traffic, when he took up office in 1941 but had been prevented by the war from doing so. This scheme was not entirely dead in 1945 when he was given the authority to build another batch of mixed-traffic 4-6-0s. Rather than build more examples of existing designs, Hawksworth introduced the County Class as a testbed for a number of the ideas he hoped to incorporate into the Pacific at a later date.

In addition to the innovations already adopted for the Modified Hall class, the new class contained several further changes from usual Great Western practice including the use of double chimneys on certain members and a high boiler pressure of 280psi. The boiler was a development that used the tooling for the LMS Stanier Class 8F boiler, Hawksworth being able to study this design closely when 8Fs were being built at Swindon as part of the war effort.

Withdrawals of the class took place between September 1962 and November 1964. No. 1011 County of Chester was the last of the class withdrawn. It was placed in storage before being sold to Cashmore's scrapyard in Newport where it was cut up in March 1965. All were scrapped.

No locomotives of this class survived into preservation. However, a replica is being built at the Didcot Railway Centre, home of the Great Western Society. When completed it will take the name and number of No. 1014 County of Glamorgan. The replica is based around the frames from Modified Hall Class 7927 Willington Hall and the boiler from LMS Stanier 8F 48518. The boiler from the Hall will be used in the replica Grange project at the Llangollen Railway. It will also have a number of smaller original parts off scrapped County locomotives including the chimney from 1006 County of Cornwall.

Diagram	Lots 354, 358
Length	63ft 0 1/4in
Width	8ft 11 1/8in

Height	13ft 5in
Introduced	1945
Withdrawn	1964
Wheel Arrangement	4-6-0
Builder	GWR Swindon Works
Weight	78.1t
TE	32,580 lbf, later reduced to 29,090 lbf
Driving Wheel Dia	6ft 3in
Boiler Pressure	280 psi, later reduced to 250 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18 1/2 in x 30in

Number	Name		Base
1014	County of Glamorgan	C	Didcot Railway Centre

1361

1361 Class 0-6-0ST

The 1361 Class were small 0-6-0ST steam locomotives built by the Great Western Railway at their Swindon railway works, England, mainly for shunting in docks and other sidings where track curvature was too tight for large locomotives.

The 1361 Class were designed by George Jackson Churchward as an update of the 1392 Class, originally built in 1874 for the Cornwall Minerals Railway. As such they combined unusual and outdated elements, such as saddle tanks and Allan valve gear, with current Great Western details such as the cab, bunker and many minor fittings. G.W.R. 0-6-0T were generally being converted to have Belpaire fireboxes and pannier tanks by this date, but the firebox on the 1361 was round topped, so the saddle tank was more appropriate.

5 were built, 1 has been preserved.

Valve Gear	Allan
Cylinder Dimensions	16" * 20*
Diagram	Lot 179
Length	25ft 7 1/2in
Width	8ft 6in
Height	11ft 7in
Introduced	1910
Withdrawn	1962
Wheel Arrangement	0-6-0 ST

Builder	GWR Swindon Works
Weight	35.8t
TE	14,835 lbf
Driving Wheel Dia	3ft 8in
Wheelbase	11ft
Boiler Pressure	150psi
Num Cylinders	2, outside

Number		Base	Depot
1363	O	Didcot Railway Centre	DI

1366

1366 Class 0-6-0PT



MRG

The Great Western Railway (GWR) 1366 Class was a class of 0-6-0 pannier tank steam locomotives built in 1934. They were a useful design and because of their light weight and short wheelbase and were often used on dockside branches or other lines with sharp curvatures.

The 1366 class was one of only two pannier tank designs built by the GWR that utilised outside cylinders, although various existing engines inherited by the GWR had pannier tanks and outside cylinders. The 1366 class was developed from the 1361 Class but differed by including a pannier tank rather than a saddle tank, Belpaire firebox, etc. They were designed to replace the 1392 Class.

6 were built, 1 has been preserved

Diagram	Lot 286
Length	26ft 2 1/4in
Width	8ft 6in
Height	11ft 11 5/8in
Introduced	1934
Withdrawn	1964
Wheel Arrangement	0-6-0 PT
Builder	GWR Swindon Works
Weight	36.3t
TE	16,320 lbf
Driving Wheel Dia	3ft 8in
Wheelbase	11ft
Boiler Pressure	165psi
Num Cylinders	2, outside
Valve Gear	Allan
Cylinder Dimensions	16in x 20in

Number		Note	Base	Livery
1369	A	On loan	South Devon Railway	GRN

1400

1400 Class 0-4-2T



The GWR 1400 Class is a class of steam locomotive designed by the Great Western Railway for branch line passenger work. It was originally classified as the 4800 Class when

introduced in 1932 and renumbered in 1946. Although credited to Charles Collett, the design dated back to 1868 with the introduction of the George Armstrong 517 class.

The 4800 Class was designed as a more modern version of the 517 Class, which were by then beginning to show their relative age. The first locomotive, No. 4800, was built by Swindon Works and entered service in 1932, with a further seventy-four engines of this type following up to 1936. During this period, Swindon also built twenty 5800 Class engines, which were broadly similar, but which were not fitted with auto-train equipment, or the Swindon top feed as later fitted to a number of 4800 class engines.

The 4800 Class locomotives retained their original numbers until the GWR decided to experimentally convert twelve 2800 Class 2-8-0s for oil-firing. It was decided that the converted engines would be reclassified as the 4800 Class and so the 75 tank locomotives already carrying this designation were reclassified as the 1400 Class with running numbers 1400-1474. The engines did not revert to their original classification after the experiment ended in 1948. They could reach a maximum speed of 80 mph which was much faster than the diesel railcars designed to replace them could reach.

75 were built, 4 have been preserved

Diagram	Lots 279, 287, 288
Length	29ft 11in
Width	8ft 7in
Height	12ft 6 1/4in
Introduced	1932
Withdrawn	1965
Wheel Arrangement	0-4-2 T
Builder	GWR Swindon Works
Weight	42t
TE	13,900 lbf
Max Speed	80mph
Driving Wheel Dia	5ft 2in
Wheelbase	15ft 6in
Boiler Pressure	165psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	16 in × 24 in

Number		Note	Base	Livery
1442	*4842*	D	Tiverton Museum	GRN
1450	*98150, 4850*	A	Severn Valley Railway	GRN

GWR					
1466	*98166, 4866*	A	for overhaul by Western Steam Engineering Ltd	Didcot Railway Centre	GRN
4820	*1420*	R		South Devon Railway	

1500

1500 Class 0-6-0PT



The Great Western Railway (GWR) 1500 Class is a class of 0-6-0 pannier tank steam locomotive. Despite being a GWR Hawksworth design, all ten (numbers 1500–1509) were completed under the administration of the Western Region of British Railways in 1949, just after Nationalisation.

Coming from a railway company with a well-developed standardisation policy, the 15xx was a strange design finale. Unlike almost all their forebears, they had outside cylinders, Walschaerts valve gear, and a very short wheelbase of 12 ft 10 in (3.91 m) to go round curves of 3.5 chains (231 ft; 70 m).

Although a sound design, the class had limited usefulness as they were route-restricted by their high weight and were unsuitable for fast running because of their short wheelbase. Largely confined to empty stock workings at London Paddington station, their lives were short.

The onset of dieselisation and the decline in traffic on the railway network consigned the 1500s to scrap long before they were life expired. However, the sole survivor, 1501 has enjoyed regular use at the Severn Valley Railway in preservation for far longer than its life in BR ownership.

Diagram	Lot 373
Introduced	1949
Withdrawn	1963 (BR) then 1970 (NCB)
Wheel Arrangement	0-6-0 PT

Builder	Swindon Works
Weight	59.1t
TE	22,515 lbf
Driving Wheel Dia	4ft 7 1/2in
Wheelbase	12ft 10in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Valve Gear	Walschaerts
Cylinder Dimensions	17.5in x 24in

Number		Base	Livery
1501	A	Severn Valley Railway	BLK

1600

1600 Class 0-6-0PT

The Great Western Railway (GWR) 1600 Class is a class of 0-6-0 pannier tank steam locomotive designed for light branch lines, short-distance freight transfers and shunting duties.

The class was based on the 2021 class designed by Dean and built from 1897 onwards. The 2021 class was in its turn an enlargement of the 850 class designed by Armstrong in 1874.

The 1600 Class was a pure GWR design but all 70 were built by the Western Region of British Railways. When the last member of the class was built in 1955, the basic design was over 80 years old; No. 1669 was the last one built, and in turn was the last GWR-design locomotive constructed at Swindon Works. BR gave the 1600 class the power classification 2F. The class's service life was short; withdrawals started in 1959 and all were gone by 1966.

70 were built, only 1 has been preserved.

Diagram	Lots 381, 389, 417
Length	30ft 2 1/2in
Width	8ft 7in
Height	11ft 5 5/8in
Introduced	1949
Withdrawn	1966
Wheel Arrangement	0-6-0 PT
Builder	Swindon Works
Weight	42.3t
TE	18,515 lbf
Driving Wheel Dia	4ft 1 1/2in

GWR

Wheelbase	14ft 8in
Boiler Pressure	165psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	16.5 in × 24 in

Number			Base	Livery
1638	*98238*	A	Leaky Finders Ltd	GRN

2251 Collett Goods

Collett Goods Class 0-6-0



MRG

The Great Western Railway (GWR) 2251 Class or Collett Goods Class was a class of 0-6-0 steam tender locomotives designed for medium-powered freight. They were introduced in 1930 as a replacement for the earlier Dean Goods 0-6-0s and were built up to 1948.

In many ways, the 2251s were modernised Dean Goods, sharing the main dimensions, but having more modern features such as taper boilers and full cabs. Increases in both boiler pressure and heating surface gave a useful increase in power at the expense of weight that restricted permitted routes. Designed by Charles Collett for medium freight and passenger duties they had 5 ft 2 in (1.575 m) driving wheels. Carrying a maximum of 3,000 imperial gallons (14,000 l; 3,600 US gal) of water to fuel a boiler operating at 200 psi (1.4 MPa) they developed 20,155 lbf (89.65 kN) of tractive effort. They could be found operating on most parts of the former GWR system. These were the first GWR 0-6-0 to use the standard number 10 boiler as later fitted to the 94xx, 15xx and various rebuilds of absorbed mainly Welsh locomotives.

120 were built, only 1 has been preserved.

Diagram	Lots 261, 283, 298, 312, 322, 337, 347, 360
Length	53ft 8 3/4in
Width	8ft 5in
Height	12ft 8 7/16in
Introduced	1930
Withdrawn	1965
Wheel Arrangement	0-6-0
Builder	GWR Swindon Works
Weight	44.1t
TE	20,155 lbf
Driving Wheel Dia	5ft 2in
Boiler Pressure	200 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 24 in

Number		Base	Livery
3205	A	South Devon Railway	GRN

2301 Dean Goods

Dean Goods Class 0-6-0



The Great Western Railway (GWR) 2301 Class or Dean Goods Class is a class of British 0-6-0 steam locomotives.

Swindon railway works built 260 of these goods locomotives between 1883 and 1899 to a design of William Dean. The 2301 class broke with previous GWR tradition in having inside frames only and changes were made in the boiler design during the period that they were being built. The first twenty engines were originally domeless though all were provided with domed boilers in due course. They were numbered 2301–2360 and 2381–2580 (2361–2380 were of the 2361 class, which were similar visually but had outside frames).

260 were built but only 1 has been preserved.

Diagram	Lots 61, 62, 63, 82, 87, 92, 99, 100, 104, 107, 108, 111
Introduced	1883
Withdrawn	1957
Wheel Arrangement	0-6-0
Builder	GWR Swindon Works
Weight	37.4t
TE	17,120 lbf or 18,140 lbf
Driving Wheel Dia	5ft 2in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 in × 24 in

Number		Base	Livery
2516	D	Steam - Museum of the GWR - Swindon	GRN

2800

2800 Class 2-8-0



The class was designed by George Jackson Churchward for heavy freight work. They were the first 2-8-0 locomotive class in Great Britain.

The prototype, originally numbered 97 but later renumbered 2800, appeared in 1903. Construction of the production series commenced in 1905 and continued until 1919. The 2884 Class which appeared in 1938–1942 was developed from the 2800 class and is sometimes classified with it.

The 84 2800s built by Churchward were constructed over more than a decade and remained the GWR's principal long haul freight engines throughout the 1920s and 1930s.

84 were built and 6 locomotives survived into preservation, along with nine 2884 class locomotives. A seventh survivor was used to provide parts for other projects. Only two members of the class have so far operated in preservation, these being 2807 and 2857.

Introduced	1903
Wheel Arrangement	2-8-0
Builder	GWR Swindon Works
TE	35,380 lb
Driving Wheel Dia	4ft 7 1/2in
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18½" * 30"
Diagram	Lots 139, 153, 155, 160, 181, 186, 190, 210
Length	63ft 2 1/4in
Width	8ft 11in
Height	12ft 11 1/4in
Withdrawn	1965

Weight	76.7t
Boiler Pressure	225 psi

Number			Note	Base	Livery
2807		A		Gloucestershire Warwickshire Steam Railway	BLK
2818		D		Steam - Museum of the GWR - Swindon	GRN
2857	*98857*	O		Severn Valley Railway	GRN
2859		D	for sale	Llangollen Railway	GRN
2861		X	some parts for use with 4700 project, frames scrapped		
2873		S	Parts used for 3803	Dartmouth Steam Railway	
2874		S		Gloucestershire Warwickshire Steam Railway	

2884

2884 Class 2-8-0



The Great Western Railway (GWR) 2884 Class is a class of 2-8-0 steam locomotive. They were Collett's development of Churchward's earlier 2800 Class and are sometimes regarded as belonging to that class.

The 2884s were designed for heavy freight work and differed from the original Class 2800 engines (Nos. 2800-2883) in a number of respects, the most obvious being that a more

modern Collett side window cab was provided and that they were built with outside steam pipes. The locomotives were so popular with the ex-Great Western crews that the British Railways Western Region operating authorities wanted more of the class built after nationalisation in 1948; however, this request was turned down in favour of BR Standard Class 9Fs.

83 were built, 9 were saved, and four of these engines have operated in preservation.

Introduced	1938
Wheel Arrangement	2-8-0
Builder	GWR Swindon Works
TE	35,380 lb
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	225psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18 1/2 in x 30in
Diagram	Lots 321, 328, 334, 341, 346
Length	63ft 2 1/4in
Width	8ft 11in
Height	13ft
Withdrawn	1965
Weight	77.5t

Number			Base	Livery
2885		O	Tyseley Locomotive Works	GRN
3802		O	Llangollen Railway	BLK
3803		A	Dartmouth Steam Railway	GRN
3814		O	Northern Steam Engineering, Stockton	
3822	*98822*	D	Didcot Railway Centre	BLK
3845		S	Honeybourne Airfield Industrial Estate	
3850		A	Gloucestershire Warwickshire Steam Railway	BLK
3855		S	East Lancashire Railway	
3862		R	Flour Mill Workshop, Bream	

2900 Saint

2900 Saint Class 4-6-0



Dan Cardwell

The Great Western Railway 2900 Class or Saint Class, which was built by the Great Western Railway's Swindon Works, incorporated several series of 2-cylinder passenger steam locomotives designed by George Jackson Churchward and built between 1902 and 1913 with differences in the dimensions. The majority of these were built as 4-6-0 locomotives; but thirteen examples were built as 4-4-2 (but converted to 4-6-0 during 1912/13). They proved to be a successful class which established the design principles for GWR 2-cylinder classes over the next fifty years.

The Saint class appeared in four production series built between 1905 and 1913, each of which differed in dimensions. There were also differences between members of each series in terms of the boilers used, wheel arrangement, and arrangements for superheating. Different series and individual locomotives within series were also fitted with different tenders

None of the original saints survived to preservation, so the Great Western Society purchased GWR 4900 Hall Class 4-6-0 No. 4942 Maindy Hall from Barry Scrapyard in 1974. The intention was to rebuild this Hall as a Saint, reversing the procedure where a Saint had been rebuilt as the Hall prototype. The project did not progress in the 1970s and 1980s, but finally started in earnest in 1995, by which time engineering capability in the preservation movement had greatly increased. It was also decided that the engine would be built in the original straight frame form like the first Saints instead of the later curved frame style as fitted to Maindy Hall. Following thirty years of storage and fifteen years of rebuilding work 2999 Lady of Legend made its first moves in April 2019 and was formally launched at the Didcot Railway Centre in the same month.

Length	63ft 0 1/4in
Width	8ft 11in
Height	13ft 3 1/2in
Introduced	1905
Withdrawn	1953
Wheel Arrangement	4-6-0 (some as 4-4-2 but then rebuilt)
Builder	GWR Swindon Works
Weight	69.4t
TE	20,530 lbf
Driving Wheel Dia	6ft 8 1/2in
Wheelbase	27ft 1in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 30in

Number	Name			Note	Base	Livery
2999	Lady Of Legend	*4942*	A	The Saint Project	Didcot Railway Centre	GRN

3200 Earl

3200 Earl Class 4-4-0 'Dukedog'



Roger Carvell

The Great Western Railway 3200 Class (or 'Earl' Class) was a design of 4-4-0 steam locomotive for passenger train work. The nickname for this class, almost universally used at the time these engines were in service was Dukedog since the locomotives were composed of former Duke Class boilers on Bulldog Class frames. As such they were one of the last standard gauge steam locomotive classes to retain outside frames.

The GWR absorbed the Cambrian Railways in 1923, but, with the Cambrian main line being lightly built, permanent way restrictions debarred the use of heavier locomotives. This meant that only a few classes of GWR locomotive were allowed to run over it, including the Duke Class. However, by the 1930s the Duke class engines were past their estimated life, and in particular the frames were in poor condition. At the same time the heavier Bulldog Class was becoming redundant and being withdrawn, and later members of this class had an improved straight topped frame design.

In December 1929, Duke No.3265 Tre Pol and Pen was withdrawn, and the cab and other above-frame fittings together with a spare Duke boiler and smokebox, were fitted to the straight-topped frames of Bulldog no. 3365 Charles Grey Mott. The rebuilt locomotive was given the name and number of the Duke. This resulted in an engine with stronger frames which could still be used on yellow weight restricted routes. The conversion was a success and from 1936 twenty-nine "new" locomotives were constructed from the relevant components of withdrawn Dukes and Bulldogs. A further eleven conversions were scheduled, but the onset of World War II brought a halt to the program.

30 were rebuilt, 1 survived and has been preserved directly from BR.

Diagram	Lots 315, 331

Length	56ft 2 1/4in
Width	8ft 9 1/2in
Height	12ft 10in
Introduced	1936
Withdrawn	1960
Wheel Arrangement	4-4-0
Builder	GWR Swindon Works
Weight	49.8t
TE	18,955 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 26in

Number			Base
9017	*3217*	D	Narrow Gauge Museum, Aberystwyth

3700 City

3700 City Class 4-4-0



The Great Western Railway 3700 Class, or City Class, locomotives were a series of twenty 4-4-0 steam locomotives, designed for hauling express passenger trains.

In September 1902 a member of the Atbara Class, no. 3405 Mauritius, was reboilered with a tapered domeless boiler and Belpaire firebox becoming the prototype for the City Class. In March 1903 the first of the City Class, no. 3433 City of Bath, was completed. Another nine

locomotives were completed in May 1903. Between February 1907 and December 1908 nine more Atbaras were rebuilt and incorporated into the City Class

The most famous locomotive in the class, 3440 City of Truro (later renumbered 3717), is reputedly the first steam locomotive to travel in excess of 100 mph, on 9 May 1904. It was the 2000th locomotive to be built at Swindon, leaving the works in April 1903.

Historically significant because of its famed 1904 run, City of Truro was a prime candidate for preservation, whereas the rest of the class of 20 locomotives were scrapped.

Builder	GWR
Introduced	1902
Weight	56.2t
TE	17800lbf
Driving Wheel Dia	6ft 8 1/2in
Wheel Arrangement	4-4-0
Cylinder Dimensions	18in x 26in
Num Cylinders	2, inside
Diagram	Lot 141
Withdrawn	1931
Max Speed	100mph
Valve Gear	Stephenson

Number	Name			Base	Livery
3440	City of Truro	*98240, 3717*	D	Steam - Museum of the GWR - Swindon	GRN

3800 County (Churchward)

3800 County Class 4-4-0

The Great Western Railway 3800 Class, also known as the County Class, were a class of 4-4-0 steam locomotives for express passenger train work introduced in 1904 in a batch of ten. Two more batches followed in 1906 and 1912 with minor differences. They were designed by George Jackson Churchward, who used standard components to produce a four-coupled version of his Saint Class 4-6-0s.

They were the last new GWR 4-4-0 design and by far the most modern, with inside frames and outside cylinders. They were designed as a part of Churchward's standardisation plan but were found to have a front end too powerful for the wheel arrangement and all were withdrawn by the early 1930s.

No members of the class were preserved. However, the Great Western Society took the decision to create the next locomotive in the sequence, 3840 County of Montgomery. The project has been handed over to the Churchward County Trust and 3840 will be based at the Gloucestershire Warwickshire Railway following its construction at Tyseley Locomotive Works in Birmingham.

The locomotive is being built with both new parts, such as the driving wheels which have been cast using the pattern created for GWS Saint Class 2999 "Lady of Legend", and recycled standard parts recovered from former Barry scrapyard locomotives including the Standard No. 4 Boiler, the pony truck wheel set, 2 x pony truck axle boxes, 4 x horn guides and 2 x eccentric sheaves from 5205 Class 2-8-0T 5227, and 4 x driving wheel axle boxes from 2800 Class 2-8-0 2861.

Diagram	Lots 149, 165, 184
Introduced	1904
Withdrawn	1933
Wheel Arrangement	4-4-0
Builder	GWR Swindon Works
Weight	56.19t
TE	20,530 lbf
Driving Wheel Dia	6ft 8 1/2in
Wheelbase	24ft
Boiler Pressure	200 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 30in

Number	Name		Base
3840	County of Montgomery	C	Tyseley Locomotive Works

4000 Star

4000 Star Class 4-6-0



The Great Western Railway 4000 or Star were a class of 4-cylinder 4-6-0 passenger steam locomotives designed by George Jackson Churchward for the Great Western Railway (GWR) in 1906 and introduced from early 1907. The prototype was built as a 4-4-2 Atlantic (but converted to 4-6-0 during 1909). They proved to be a successful design which handled the heaviest long-distance express trains, reaching top speeds of 90 mph, and established the design principles for GWR 4-cylinder classes over the next twenty-five years

During the first decade of the twentieth century, the new Chief Mechanical Engineer, George Jackson Churchward designed or acquired a number of experimental locomotives with different wheel arrangements and boiler designs to help him plan for the future needs of the railway. Following the success of his two-cylinder Saint class 4-6-0 locomotives, Churchward became interested in developing a more powerful 4-cylinder type for the longer non-stop express services. He therefore persuaded the GWR to acquire three French 4-cylinder 4-4-2 compound locomotives for comparison purposes.

In addition to acquiring the French compound locomotives Churchward built and tested his own prototype 4-cylinder locomotive simple-expansion locomotive, No. 40 North Star in 1906. In November 1909 it was converted to 4-6-0. The new design incorporated many ideas from the French locomotives, in particular, the four-cylinder layout, with the inside cylinders placed forward under the smokebox and the outside cylinders placed far back, in line with the rear wheels of the bogie; from this followed the divided drive with the outside cylinders connected to the second set of driving wheels whilst the inside cylinders were connected to the front set of driving wheels.

In total 73 locomotives were produced but only 1 has been preserved.

Diagram	Lots 161, 168, 173, 178, 180, 195, 199, 217

Introduced	1906
Withdrawn	1957
Wheel Arrangement	4-6-0
Builder	GWR Swindon Works
Weight	77t
TE	25,090 lbf
Driving Wheel Dia	6ft 8 1/2in
Wheelbase	27ft 3in
Boiler Pressure	225 psi
Num Cylinders	4, 2 inside, 2 outside
Valve Gear	Walschaerts, inside
Cylinder Dimensions	14 1/4 in × 26in + 15in x 26in

Number	Name		Base	Livery
4003	Lode Star	D	Steam - Museum of the GWR - Swindon	GRN

4073 Castle

4073 Castle Class 4-6-0



The 4073 or Castle Class are 4-6-0 steam locomotives of the Great Western Railway, built between 1923 and 1950. They were designed by the railway's Chief Mechanical Engineer, Charles Collett, for working the company's express passenger trains. They could reach speeds of up to 100 mph.

Charles Collett succeeded Churchward as Chief Mechanical Engineer of the GWR in 1922 and immediately set about meeting the need for a new locomotive design that would both

supplement the Stars and replace them on the heaviest expresses. Collett's solution was to take the basic layout of the Star with an extended frame and add a newly designed No.8 boiler which was both larger and lighter.

The increased amount of steam that this produced allowing an increase in the cylinder diameter from 15 in × 26 in to 16 in × 26 in. The extended frame allowed for a side window cab and an increased grate area. The result was an increase in tractive effort to 31,625 lb, and a locomotive that looked attractive and well-proportioned while remaining within the 20-ton axle limit. When introduced they were heralded as Britain's most powerful express passenger locomotive, being some 10% more powerful than the Stars.

The Castles handled all but the heaviest loads, these being entrusted to the 30-strong King Class, themselves a development of the Castles with an even larger boiler and smaller wheels (6 ft 6 in diameter) for both increased tractive effort and to allow for loading gauge clearance.

171 were produced, eight have been preserved, six have operated in preservation.

Builder	GWR/BR Swindon Works
Introduced	1923
Weight	79+47t
TE	31625lbf
Driving Wheel Dia	6ft 8 1/2in
Wheel Arrangement	4-6-0
Boiler Pressure	225lbf
Cylinder Dimensions	16in x 26in
Num Cylinders	4
Valve Gear	Walschaerts
Length	65ft 2in
Width	8ft 11in
Height	13ft 4 1/2in
Withdrawn	1965
Max Speed	100mph
URL	Lots 224, 232, 234, 280, 295, 296, 303, 310, 317, 324, 357, 367, 375

Number	Name			Base	Livery
4073	Caerphilly Castle		D	Steam - Museum of the GWR - Swindon	GRN
4079	Pendennis Castle		A	Didcot Railway Centre	
5029	Nunney Castle	*98728*	O	Locomotive Services, Crewe	GRN

GWR

5043	Earl of Mount Edgcumbe	*98743*	A	Tyseley Locomotive Works	GRN
5051	Earl Bathurst	*98751*	D	Didcot Railway Centre	GRN
5080	Defiant	*98780*	D	Tyseley Locomotive Works	GRN
7027	Thornbury Castle		S	Tyseley Locomotive Works	
7029	Clun Castle	*98729*	A	Tyseley Locomotive Works	GRN

4200

4200 Class 2-8-0T



The Great Western Railway (GWR) 4200 Class is a class of 2-8-0T steam locomotives.

After the GWR took over operations and then absorbed the various South Wales based railways from the late 1800s, operational practice on most was defined by moving heavy coal trains on sharp, steep and undulating tracks. Thus many of these railways - especially the dominant Taff Vale Railway - specified and used an 0-6-2T, which gave maximum tractive effort whilst riding well on the undulating track.

With coal trains increasing in size and scale, the GWR needed to develop a more powerful locomotive to meet these requirements, on what were relatively short haul routes. Thus in 1906, Chief Engineer George Jackson Churchward took the basic design of his GWR 2800 Class and adapted it. After proposing a 2-8-2T design, Churchward developed the UK's first 2-8-0 tank engine, through concerns that the longer frames required for a 2-8-2T would restrict operation in the South Wales Valleys.

In 1921, having also run out of allocation numbers, the class received its first major upgrade. Increasing cylinder diameter from 18.5 inches to 19 inches increased tractive effort to 33,170

pounds, thus creating the distinctive later GWR 5205 Class. To increase their operational ability across the wider GWR network, Charles Collett took the decision to alter some locomotives still in production to 2-8-2T by adding a bolt-on 4 feet extension to the frames to accommodate a pair of rear trailing wheels. This created the GWR 7200 Class 2-8-2T.

105 were built, 5 have been preserved

Introduced	1910
Wheel Arrangement	2-8-0T
Builder	Great Western Railway
TE	31,450 lb
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18 1/2 in × 30 in
Diagram	Lots 182, 187, 196, 200, 203, 213, 220
Length	40ft 9in
Width	8ft 11in
Height	12ft 10 1/16in
Withdrawn	1965
Weight	82.9t

Number	Name		Base	Livery
4247		A	Dartmouth Steam Railway	BLK
4248		D	Steam - Museum of the GWR - Swindon	GRN
4253		O	Kent & East Sussex Railway	
4270		S	Kent & East Sussex Railway	GRN
4277	Hercules	A	Dartmouth Steam Railway	BLK

4300

4300 Class 2-6-0



The Great Western Railway 4300 Class is a class of 2-6-0 (mogul) steam locomotives, designed by G.J. Churchward for mixed traffic duties. 342 were built from 1911–1932.

In 1906 Churchward fitted a more powerful Standard No. 4 boiler to his successful 3100 Class 2-6-2T to create the GWR 3150 Class. These showed themselves to be successful locomotives, but their weight and water capacity meant that they tended to be restricted to suburban passenger traffic. Churchward was looking forward to the replacement of various of his predecessor's 2-4-0 classes on secondary duties. In 1911 he therefore designed a tender version of the 3150 class which would be suitable for a wide range of intermediate duties.

The class was 'a total synthesis of standard parts, using the outside cylinders of the Saint, the wheels of '31XX' 2-6-2 tank and the No. 4 boiler, in its superheated form.' No prototype was required as the fundamental design had proved itself. The locomotives quickly proved themselves to be so useful that they were produced more or less continuously in a series of batches over a twelve-year period (1911–1923), sometimes incorporating detailed differences. Two further lots were built in 1925 and 1932 by Churchward's successor, Charles Collett.

Between January and March 1928, 65 engines of 5300 series received additional weight on the pony truck, and 3000 was added to their running numbers, temporarily creating an '8300 Class'. However, the additional weight placed them in the Red category of route availability. From 1944 onwards there was a shortage of locomotives in the Blue category and so the additional weights were removed and the surviving locomotives resumed their original running numbers.

Although the class continued to be very useful and the final batch were still relatively new, 100 of the earlier examples were withdrawn between 1936 and 1939 and the wheels and motion of eighty were used for the Grange Class and twenty for Manor Class engines. It

was intended to replace the whole class in this way but the advent of the Second World War in 1939 brought a temporary halt to withdrawals and the programme was never revived.

342 were built, but only two examples have survived to preservation. Additionally Large Prairie 5193 was converted to a "4300" in 2004

Diagram	Lots 183, 193, 194, 198, 202, 204–209, 211, 212, 218, 222, 230, 276
Length	58ft 1 1/4in
Width	8ft 11in
Height	13ft
Introduced	1911
Withdrawn	1964
Wheel Arrangement	2-6-0
Builder	GWR Swindon Works (307), Robert Stephenson & Co. (35)
Weight	63t
TE	25,670 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Cylinder Dimensions	18 1/2 in × 30 in

Number			Base	Livery
7325	*98425, 9303*	D	Severn Valley Railway	GRN
8322	*98422, 5322*	A	Didcot Railway Centre	BLK
9351	*5193*	A	West Somerset Railway	GRN

4500 Small Prairie

4500 Class 2-6-2T Small Prairie



The Great Western Railway (GWR) 4500 Class or Small Prairie is a class of 2-6-2T steam locomotives.

They were designed as small mixed traffic locomotives, mainly used on branch lines. The design was based on the earlier 4400 Class, but with larger driving wheels and altered wheel spacing. This gave them extra speed. A total of 75 were built; 55 were built in four batches between 1906 and 1915 and a fifth batch of 20 locos was built in 1924, during Collett's tenure at Swindon.

Three of the class still exist, two of them survivors from Woodham Brothers scrapyard in Barry, Vale of Glamorgan, South Wales. All of them have run in preservation.

Diagram	Wolverhampton: Lot N3 Swindon: Lots 174, 191, 201, 226
Introduced	1906
Withdrawn	1964
Wheel Arrangement	2-6-2T
Builder	Wolverhampton Works (20), GWR Swindon Works (55)
Weight	58t
TE	21,250 lbf
Max Speed	60mph
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Cylinder Dimensions	17 in × 24 in

Number	Name			Note	Base	Livery
4555	Warrior	*98455*	P		East Somerset Railway	GRN
4561			R		West Somerset Railway	
4566			A		Severn Valley Railway	BLK
4588	Trojan	*98488*	O		Tyseley Locomotive Works	
5521		*98421, L150*	A	On loan	Gwili Railway	GRN
5526			A	on loan from South Devon Railway	Swanage Railway	BLK
5532			R		Llangollen Railway	
5538			R		Flour Mill Workshop, Bream	
5539			R		Barry Tourist Railway	
5541			A		Dean Forest Railway	GRN
5542			R		South Devon Railway	
5552			O		Bodmin & Wenford Railway	GRN
5553			A		Bodmin & Wenford Railway	GRN
5572		*98472*	D		Didcot Railway Centre	GRN

4700 Night Owl

4700 Class 2-8-0 'Night Owl'

The Great Western Railway (GWR) 4700 Class was a class of nine 2-8-0 steam locomotives, designed by George Jackson Churchward. They were introduced in 1919 for heavy mixed-traffic work. Although primarily designed for fast freight, the class also sometimes hauled passenger trains, notably heavy holiday expresses in the summer months. They were called

"Night Owls" because they were primarily designed to haul goods during the night and that they could be seen simmering in the daylight, awaiting their nocturnal duties.

At the end of the First World War, the running department of the GWR identified the need for a larger version of the successful GWR 4300 Class 2-6-0 incorporating the Swindon No. 1 boiler. They envisaged a smaller version of the successful Saint class 4-6-0 with 5 ft 8 in (1.727 m) driving wheels - the intermediate of Churchward's three standard wheel sizes, for express goods trains. However, Churchward preferred a 2-8-0 design for this purpose.

Nine were built, but no members of the class were preserved. However, the Great Western Society 4709 Group made the decision to create the next locomotive in the sequence, GWR 4709. Supported via a GWS sub-group; the plan was to build it using a mixture of new parts and others recycled from former Barry scrapyard locomotives. The plates for the new frames were cut and machined in 2012.

Diagram	Lots 214, 221
Length	66ft 4 1/4in
Width	8ft 11in
Height	13ft 4 3/4in
Introduced	1919
Withdrawn	1964
Wheel Arrangement	2-8-0
Builder	GWR Swindon Works
Weight	83.3t
TE	30,460 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 30 in

Number	Name		Note	Base
4709	Night Owl	C	New Build	Tyseley Locomotive Works

4900 Hall

4900 Hall Class 4-6-0



The Great Western Railway 4900 Class or Hall Class is a class of 4-6-0 mixed-traffic steam locomotives designed by Charles Collett for the Great Western Railway. A total of 259 were built at Swindon Works, numbered 4900–4999, 5900–5999 and 6900–6958. The LMS Stanier Class 5 4-6-0 and LNER Thompson Class B1 both drew heavily on design features of the Hall Class. After nationalisation in 1948, British Railways gave them the power classification 5MT.

By the end of 1923 the Great Western Railway was well served with express passenger locomotives of the Saint and Star classes and had recently introduced the Castle Class. However, the mixed-traffic 2-6-0 locomotives of the 4300 Class were beginning to struggle with the increasing loads. George Jackson Churchward had recognised this with the introduction of the 4700 class 2-8-0 with 5 ft 8 in driving wheels, intended for express goods and relief passenger trains. However, Charles Collett preferred the idea of a Saint Class with smaller wheels to undertake these duties as this would provide a leading bogie. He therefore rebuilt number 2925 Saint Martin with 6 ft driving wheels.

After extensive trials during 1925–1927, Collett was satisfied with the performance of his prototype, subject to minor amendments and placed an order for eighty more with Swindon works (Lot 254) in 1928. The prototype was renumbered 4900 in December 1928 and the new locomotives were numbered 4901-80 and appeared at regular intervals until February 1930. They were named after English and Welsh country houses with 'Hall' in their titles and so became known as the 'Hall Class'.

259 were produced, including the converted prototype, 10 have been preserved and an additional 1 has been converted into a Saint Class locomotive.

Diagram	Lots 254, 268, 275, 281, 290, 297, 304, 311, 327, 333, 338, 340
Length	63ft 0 1/4in
Width	8ft 11 1/4in

GWR

Height	13ft 3 1/4in
Introduced	1924
Withdrawn	1965
Wheel Arrangement	4-6-0
Builder	GWR Swindon Works
Weight	76.2t
TE	27,275 lbf
Driving Wheel Dia	6ft
Boiler Pressure	225 psi
Num Cylinders	2, outside
Cylinder Dimensions	18 1/2 in × 30 in

Number	Name			Base	Livery
4920	Dumbleton Hall		E	Warner Brothers Studio Tour, Toshimaen, Tokyo, Japan	HOG
4930	Hagley Hall	*98530*	S	Severn Valley Railway	GRN
4936	Kinlet Hall	*98536*	O	Tyseley Locomotive Works	GRN
4953	Pitchford Hall	*98553*	A	Epping & Ongar Railway	BLK
4965	Rood Ashton Hall /Albert Hall	*98549*	A	Tyseley Locomotive Works	GRN
4979	Wootton Hall		R	Ribble Steam Railway	
5900	Hinderton Hall		D	Didcot Railway Centre	GRN
5952 [1]	Cogan Hall		R	Tyseley Locomotive Works	
5967	Bickmarsh Hall		R	Llangollen Railway	
5972	Olton Hall	*98572, Hogwarts Castle*	D	Warner Brothers Studio Tour, London	HOG

Notes
1: spares for 6880

5101 Large Prairie

5101 Class 2-6-2T 'Large Prairie'



The GWR 5101 Class or 'Large Prairie' is a class of 2-6-2T steam locomotives of the Great Western Railway. The 5101 Class were medium-sized tank engines used for suburban and local passenger services all over the Great Western Railway system. The class was an updated version, by Collett, of Churchward's 1903 3100/5100 Class.

The original 40 members of the 3100 class were renumbered 5100 and 5111 to 5149 in 1927. The first batches of 5101s filled in the numbers 5101 to 5110 and extended the class from 5150 to 5189. They were little changed from the Churchward locomotives as they then were but had an increased axle loading of 17 long tons 12 cwt (39,400 lb or 17.9 t); the maximum permitted for the 'Blue' route availability. Bunkers were of the standard Collett design with greater coal capacity. The 5100 number series was exhausted in 1934, and further new locomotives were numbered from 4100. The last 20 were built after nationalisation.

140 were built, 8 are preserved plus 1 used for spares and another converted into a tender engine.

Diagram	Lots 257, 259, 284, 292, 313, 323, 335, 361, 369
Length	41ft
Introduced	1929
Withdrawn	1965
Wheel Arrangement	2-6-2T
Builder	GWR Swindon Works
TE	24,300 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	200 psi
Num Cylinders	2
Cylinder Dimensions	18in x 30in

GWR

Number		Note	Base	Livery
4110	A		Dartmouth Steam Railway	
4115	S	for use with 4700 project	Barry Tourist Railway	
4121	S		Tyseley Locomotive Works	
4141	A		Epping & Ongar Railway	GRN
4144	P		Didcot Railway Centre	GRN
4150	A		Severn Valley Railway	GRN
4160	P		South Devon Railway	
5164	A		Tyseley Locomotive Works	GRN
5199	O		Flour Mill Workshop, Bream	GRN

5205

5205 Class 2-8-0T



5224 at Peak Rail

Dan Cardwell

The Great Western Railway (GWR) 5205 Class is a class of 2-8-0T steam locomotives. They were designed for short-haul coal trips from coal mines to ports in South Wales. They were based on the 4200 Class which had been introduced by the Great Western Railway in 1910. The 5205 series were of the same general design and 70 of the 5205 class were built, 5205-5274. They retained the straight frames of the 4200s but had outside steam pipes and 19" diameter cylinders and so were slightly more powerful than their predecessors.

Twenty more locomotives to the same general design were built from 1930. This series had curved frames at the front with a raised section of frame over cylinders which were of the

same size as the 5205 series. These were 5275 to 5294. These were all rebuilt as 7200 Class in 1934 without seeing significant use. Ten more, 5255-5264 were built in 1940, reusing numbers from 5205 class members which had also been rebuilt as 7200 Class.

100 were produced, three examples of the 5205 class have been preserved with two of them 5224 and 5239 having run in preservation. No members of the 5275 class have been preserved in their original form, but two survive in rebuilt form in the 7200 class.

Diagram	Lots 223, 225, 233, 266, 329
Introduced	1923
Withdrawn	1965
Wheel Arrangement	2-8-0T
Builder	GWR Swindon Works
Weight	83.4t
TE	33,170 lbf
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Cylinder Dimensions	19 in × 30 in

Number	Name		Note	Base	Livery
5224		A		Peak Rail	BLK
5227		S	for use with 4700 project	Didcot Railway Centre	
5239	Goliath	A		Dartmouth Steam Railway	GRN

5600

5600 Class 0-6-2T



The GWR 5600 Class is a class of 0-6-2T steam locomotive built between 1924 and 1928. They were designed by Charles Collett for the Great Western Railway (GWR) and were introduced into traffic in 1924. After the 1923 grouping, Swindon inherited a large and variable collection of locomotives from historic Welsh railway companies, which did not fit into their standardisation programme. GWR boiler inspectors arrived en-masse and either condemned the original locomotives or had them rebuilt. The systematic destruction of many examples of locomotives, most still in serviceable condition, followed, but various were worked alongside 5600 Class.

Two hundred GWR 5600 Class replacement locomotives were built and remained in service until withdrawn by British Railways between 1962 and 1965. Nine of the class have survived into preservation.

Diagram	Lots 228, 235, 244, 252, 255
Introduced	1924
Withdrawn	1966
Wheel Arrangement	0-6-2T
Builder	GWR Swindon Works (150), Armstrong Whitworth (50)
Weight	69.t
TE	25,800 lbf
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	200 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 26in

Number		Base	Livery
5619	A	Telford Steam Railway	BLK
5637	O	Tyseley Locomotive Works	GRN
5643	P	Ribble Steam Railway	
5668	S	Kent & East Sussex Railway	
6619	D	Kent & East Sussex Railway	BLK
6634	S	Peak Rail	
6686	O	Bryn Engineering, Blackrod	
6695	A	West Somerset Railway	GRN
6697	D	Didcot Railway Centre	GRN

5700

5700 Class 0-6-0PT



The GWR 5700 Class, or 57xx class, is a class of 0-6-0 pannier tank steam locomotive, built by the Great Western Railway (GWR) and British Railways (BR) between 1929 and 1950. With 863 built, they were the most prolific class of the GWR, and one of the most numerous classes of British steam locomotive.

Although officially designated by GWR as "light goods and shunting engines", they were also used for passenger working on branch, suburban, and shorter mainline journeys. They were distributed across most of the GWR network and, after nationalisation of the railways in 1948, across the Western Region of British Railways, and also other regions. The 5700s were not as large as the GWR Castles and Kings but became just as much of an icon of the GWR due to their iconic design and quantity.

As a result of the 1955 Modernisation Plan, the 5700 Class was withdrawn from BR service between 1956 and 1966. Nineteen withdrawn locomotives were sold to London Transport

and industry, of which ten were later preserved, along with six that were retrieved from scrapyards.

Length	31ft 2in
Width	8ft 7in
Height	12ft 3 1/16in
Introduced	1929
Withdrawn	1966
Wheel Arrangement	0-6-0 PT
Builder	Various for GWR
Weight	48.3t
TE	22,515 lbf
Driving Wheel Dia	4ft 7 1/2in
Wheelbase	15ft 6in
Boiler Pressure	200 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 1/2 in × 24 in

Number			Base	Livery
3650		A	Didcot Railway Centre	GRN
3738		A	Didcot Railway Centre	BLK
4612		A	Bodmin & Wenford Railway	GRN
5764	*L95*	S	Severn Valley Railway	GRN
5775	*L89*	A	Keighley & Worth Valley Railway	GRN
5786	*L92*	A	South Devon Railway	LUG
7714		A	Severn Valley Railway	GRN
7715	*98315, L99*	A	Buckinghamshire Railway Centre	LUG
7752 [1]	*L94*	A	West Somerset Railway	LUG
7754		A	Llangollen Railway	GRN
7760	*98460, L90*	S	Tyseley Locomotive Works	
9600	*98457*	A	Tyseley Locomotive Works	BLK
9629 [2]		R	Leaky Finders Ltd	UUU
9642		R	Flour Mill Workshop, Bream	
9681		A	Dean Forest Railway	GRN
9682		R	Dean Forest Railway	BLK

Notes
1: on loan from Tyseley Locomotive Works
2: Name: Clementine

6000 King

6000 King Class 4-6-0



Dan Cardwell

The Great Western Railway (GWR) 6000 Class or King Class is a class of 4-6-0 steam locomotives designed for express passenger work and introduced in 1927. They were the largest locomotives built by the GWR, apart from the unique Pacific (The Great Bear). The class was named after kings of the United Kingdom and of England, beginning with the then reigning monarch, King George V, and going back through history. They handled the principal GWR expresses on the main line from London to the West of England and on the Chiltern line to Birmingham and Wolverhampton, until 1962 when the class was withdrawn.

31 were built, 3 have been preserved.

Diagram	Lots 243, 267, 309
Length	68ft 2in
Width	8ft 11 1/2in
Height	13ft 4 3/4in
Introduced	1927
Withdrawn	1962
Wheel Arrangement	4-6-0
Builder	GWR Swindon Works
Weight	90.4t
TE	40,300 lbf (39,700 lbf after 1st overhaul)
Driving Wheel Dia	6ft 6in
Boiler Pressure	250 psi
Num Cylinders	4, 2 inside, 2 outside

Valve Gear	Walschaerts (inside) Rocking bars from inside cylinders (outside)
Cylinder Dimensions	16 1/4in x 28in

Number	Name			Base	Livery
6000	King George V	*98800*	D	Steam - Museum of the GWR - Swindon	GRN
6023	King Edward II	*98823*	A	Didcot Railway Centre	BXB
6024	King Edward I	*98824*	A	Locomotive Services, Crewe	GRN

6100

6100 Class 2-6-2T



The GWR 6100 Class is a class of 2-6-2T side tank steam locomotives. The class was designed by Charles Collett and introduced in 1931 and were a straightforward development of the earlier 5101 class (and for that matter the 1905 3100/5100 class). The main difference from their predecessors was an increased boiler pressure of 225 psi with a consequent increase in tractive effort.

70 were built, one locomotive, 6106, has survived into preservation

Diagram	Lots 269, 278, 291
Length	41ft
Width	8ft 11 1/4in
Height	12ft 7 5/8in
Introduced	1931
Withdrawn	1965

GWR

Wheel Arrangement	2-6-2T
Builder	GWR Swindon Works
Weight	79.7t
TE	27,340 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 30in

Number		Base	Livery
6106	D	Didcot Railway Centre	GRN

6400

6400 Class 0-6-0PT



The Great Western Railway (GWR) 6400 Class is a class of 0-6-0 pannier tank steam locomotive introduced by Charles Collett in 1932. All 40 examples were 'auto-fitted' – equipped with the remote-control equipment needed for working autotrains.

The 1936 GWR 7400 Class was a similar class, without the autotrain apparatus, but with a higher boiler pressure of 180 psi, providing a small but useful increase in power. An initial build of 30 in 1936-1937 was added to by British Railways in two batches each of ten locos in 1948 and 1950. These were destined for a short life, the briefest being only nine years. A minor visual difference between the 5400 and earlier 6400, and the later series of 6400, with the 7400 classes was at the join between cab and bunker. The 5400 and early 6400 had an arc whereas the later 6400 and the 7400 class was straight.

There were 40 locomotives in the 6400 Class, and 50 locomotives in the 7400 Class. Three of the 6400 Class have survived to preservation, unfortunately none of the 7400 Class survived

Diagram	Lots 277 (part), 294, 300, 305, 307, 371, 380
Length	31ft 1in
Width	8ft 7in
Height	12ft 2 15/16in
Introduced	1932
Withdrawn	1965
Wheel Arrangement	0-6-0 PT
Builder	GWR/BR Swindon Works
Weight	46.3t
TE	16,510 lbf (7400: 18,010 lbf)
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	165 psi (7400 180 psi)
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	16 1/2 in × 24 in

Number	Name		Base	Livery
6412		A	Bodmin & Wenford Railway	GRN
6430		A	South Devon Railway	GRN
6435	Ajax	S	West Somerset Railway	GRN

6800 Grange

6800 Grange Class 2-6-0



6880 leaving Market Bosworth, on January 11th 2025

Robert Tarling

The Great Western Railway (GWR) 6800 Class or Grange Class was a mixed-traffic class of 4-6-0 steam locomotive, built to replace the GWR 4300 Class 2-6-0. There were 80 in the class, all built at the Swindon works, using some reconditioned parts from withdrawn 4300 Class locomotives.

The GWR locomotive standardisation policy pursued by George Jackson Churchward envisaged a range of locomotive classes which would be suitable for the majority of duties, and yet which would share a small number of standard components. Amongst the designs suggested in 1901 was a 4-6-0 with 5-foot-8-inch diameter driving wheels, and the Standard No. 1 boiler. Although planned in 1901, none were built during Churchward's lifetime. C.B. Collett, rather introduced the Hall class with 6-foot diameter driving wheels.

The 4300 Class of 2-6-0 tender locomotives had been introduced on the GWR for mixed traffic duties in 1911, and by 1932 there were 342 in service. However, by the mid 1930s some of the earlier examples were in need of attention and the class as a whole was struggling with some of the duties expected of them. Collett therefore revived the Churchward proposal but modified the design to include a cab and controls to the current style. The Granges were effectively a smaller-wheeled version of the Hall Class. Between 1936 and 1939, one hundred 4300 Class were taken out of service and replaced by new 4-6-0 locomotives, eighty of which were of the 6800 Grange class, whilst the remaining 20 were of the 7800 Manor class. It had been intended to replace all of the 4300 Class in this way, but the Second World War stopped the programme.

The entire class was withdrawn from service between 1960 and 1965 and no examples were preserved. 6853 Morehampton Grange was a candidate for preservation by the GWS at Didcot, but Manor class 7808 Cookham Manor was purchased instead. However, GWR 6880

Betton Grange, the next Grange that was due to be built originally, was constructed between approximately 2005 and 2023 at the Llangollen Railway and Tyseley Locomotive Works.

Diagram	Lot 308
Length	63ft 0 1/4in
Width	8ft 11in
Height	13ft
Introduced	1936
Withdrawn	1965
Wheel Arrangement	4-6-0
Builder	GWR Swindon Works
Weight	75.2t
TE	28,875 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Cylinder Dimensions	18 1/2 in × 30 in

Number	Name		Note	Base	Livery
6880	Betton Grange	A	New Build	Gloucestershire Warwickshire Steam Railway	GRN

6959 Modified Hall

6959 Modified Hall Class 4-6-0



The Great Western Railway 6959 or Modified Hall Class is a class of 4-6-0 steam locomotive. They were a development by Frederick Hawksworth of Charles Collett's earlier Hall Class named after English and Welsh country houses.

Although the GWR had been at the forefront of British locomotive development between 1900 and 1930, the 1930s saw a degree of complacency at Swindon reflected in the fact that many designs and production methods had not kept pace with developments elsewhere. This was especially true with the useful GWR 4900 Class, the design of which largely originated in the 1900s and had not fundamentally changed since the mid-1920s. Charles Collett was replaced as the Chief Mechanical Engineer of the Railway by F.W. Hawksworth in 1941 who immediately created a modified version of the design, known as the 'Modified Hall Class'.

71 Modified Halls were built. Six have been preserved on various heritage railways. A seventh survivor no 7927 Willington Hall is being used as a donor for the Grange and County re-creation projects.

Diagram	Lots 350, 366, 368, 376
Length	63ft 0 1/4in
Width	8ft 11 1/2in
Height	13ft 2 1/16in
Introduced	1944
Withdrawn	1965
Wheel Arrangement	4-6-0
Builder	GWR/BR Swindon Works
Weight	77t
TE	27,275 lbf

Driving Wheel Dia	6ft
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	18 1/2 in × 30 in

Number	Name			Note	Base	Livery
6960	Raveningham Hall	*98560*	S		One:One Collection	
6984	Owsden Hall		R		Buckinghamshire Railway Centre	
6989	Wightwick Hall	*Hogwarts Castle*	A		Buckinghamshire Railway Centre	HOG
6990	Witherslack Hall	*6988, Swithland Hall*	A	Sometimes runs as 6988 Swithland Hall	Great Central Railway	GRN
6998	Burton Agnes Hall	*98598*	D		Didcot Railway Centre	GRN
7903	Foremarke Hall		A		Severn Valley Railway	GRN
7927	Willington Hall		X			

7200

7200 Class 2-8-2T



7202 at Didcot

Dan Cardwell

The Great Western Railway (GWR) 7200 Class is a class of 2-8-2T steam locomotive. They were the only 2-8-2Ts built and used by a British railway, and the largest tank engines to run on the Great Western Railway.

Originally the 4200 class and 5205 class 2-8-0T were introduced for short-haul Welsh coal traffic. Built specifically for the short runs of heavy trains in the South Wales Coalfield, Charles Collett took the agreed decision to rebuild some of them with an extended coal carrying capacity and thus greater range and usefulness by adding 4 feet to the frames, requiring the addition of a trailing wheel set, making them 2-8-2T.

The 54 rebuilt locos found work in most parts of the GWR system, where their great weight 94.1t was allowed, although the rebuilt chassis length did get them banned from certain goods yards.

54 were rebuilt, 3 have been preserved.

Diagram	Lot 318
Length	44ft 10in
Width	8ft 11in
Height	12ft 10 1/16in
Introduced	1934
Withdrawn	1965
Wheel Arrangement	2-8-2T
Builder	GWR Swindon Works
Weight	94.1t

TE	33,170 lbf
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	200 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 30 in

Number			Note	Base
7200	*5277*	R	rebuilt from 5277	Buckinghamshire Railway Centre
7202	*5275*	R	rebuilt from 5275	Didcot Railway Centre
7229	*5264*	S	rebuilt from 5264	East Lancashire Railway

7800 Manor

7800 Manor Class 4-6-0



The Great Western Railway (GWR) 7800 Class or Manor Class is a class of 4-6-0 steam locomotive. They were designed as a lighter version of the Grange Class, giving them a wider Route Availability. Like the 'Granges', the 'Manors' used parts from the GWR 4300 Class Moguls but just on the first batch of twenty. Twenty were built between 1938 and 1939, with British Railways adding a further 10 in 1950. They were named after Manors in the area covered by the Great Western Railway.

Remarkably, for a relatively small class where thirty engines were built, nine examples have been preserved.

Diagram	Lot 316, Lot 377
Length	61ft 9 1/4in

GWR

Height	13ft
Introduced	1938
Withdrawn	1965
Wheel Arrangement	4-6-0
Builder	GWR/BR Swindon Works
Weight	70t
TE	27,340 lbf
Driving Wheel Dia	5ft 8in
Wheelbase	27ft 1in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Cylinder Dimensions	18in x 30in

Number	Name			Note	Base	Livery
7802	Bradley Manor	*98502*	O		Severn Valley Railway	GRN
7808	Cookham Manor		D		Didcot Railway Centre	GRN
7812	Erlestoke Manor	*98512*	A		Severn Valley Railway	GRN
7819	Hinton Manor	*98519*	D		Vale of Rheidol Railway	GRN
7820	Dinmore Manor		D		Gloucestershire Warwickshire Steam Railway	BLK
7821	Ditcheat Manor		A		Steam - Museum of the GWR - Swindon	GRN
7822	Foxcote Manor		O	Foxcote Manor Society	West Somerset Railway	BLK
7827	Lydham Manor (running as Torquay Manor)		A		Dartmouth Steam Railway	BLK
7828	Odney Manor (running as Norton Manor 40 Commando)		A		West Somerset Railway	GRN

9400

9400 Class 0-6-0PT



The Great Western Railway (GWR) 9400 Class is a class of 0-6-0 pannier tank steam locomotive, used for shunting and banking duties.

The first ten 9400s were the last steam engines built by the GWR. After nationalisation in 1948, another 200 were built by private contractors for British Railways (BR). Most had very short working lives as the duties for which they were designed disappeared through changes in working practices or were taken over by diesel locomotives.

210 were built, two locomotives survived into preservation, with the oldest of the class, 9400 as part of the National Collection.

Diagram	Lot Nos. 365, 382–387
Length	33ft 2in
Width	8ft 7in
Height	12ft 5 1/2in
Introduced	1947
Withdrawn	1965
Wheel Arrangement	0-6-0 PT
Builder	Various for GWR
Weight	56.2t
TE	22,515 lbf
Driving Wheel Dia	4ft 7 1/2in
Wheelbase	15ft 6in
Boiler Pressure	200 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 24 in

Number			Base	Livery
9400		D	Steam - Museum of the GWR - Swindon	GRN
9466	*98466*	A	West Somerset Railway	BLK

A1A-A1A Gas Turbine

BR 18000 Gas Turbine Locomotive



British Rail 18000 was a prototype mainline gas turbine-electric locomotive built for British Railways in 1949 by Brown, Boveri & Cie. An earlier gas-turbine locomotive, 18100, had been ordered from Metropolitan-Vickers by the Great Western Railway but construction was delayed due to World War II; a second, 18000, was thus ordered from Switzerland in 1946. It spent its working life on the Western Region of British Railways, operating express passenger services from Paddington station, London.

The GWR chose a gas-turbine locomotive because, at the time, there was no single-unit diesel locomotive of sufficient power available. The King class steam locomotive could deliver about 2,500 horsepower at the rail. The LMS diesel locomotives had engines of only 1,600 hp. After allowing for transmission losses, this would be down to about 1,300 hp at the rail, so two diesels would be needed to match a King.

No. 18000 was of A1A-A1A wheel arrangement, and its gas turbine was rated at 2,500 hp. It had a maximum speed of 90 miles per hour and weighed 117t. It was painted in BR black livery, with a silver stripe around the middle of the body and silver numbers.

The gas turbine was a Brown Boveri industrial machine. It was of a type which would now be called a turboshaft engine but differed from modern free-turbine turboshaft engines in having only one turbine to drive both the compressor and the output shaft. The emphasis was on fuel economy, so it had a heat exchanger (to recover waste heat from the exhaust)

and was designed to run on cheap heavy fuel oil. After leaving the heat exchanger, the pre-heated air entered a large, vertical, combustion chamber where the fuel was injected and burned.

18000 was preserved, 18100 was converted to an electric locomotive and then later scrapped.

Builder	Brown, Boveri and Cie and Swiss Locomotive and Machine Works
Max Speed	90 mph (145 km/h)
Introduced	1949
Weight	115.18 long tons (117.03 t 129.00 short tons)
Wheel Arrangement	A1A-A1A
Diagram	GWR Lot 372
Withdrawn	1960
Power	2500HP
TE	31,500 lbf
Engine	Brown Boveri industrial gas turbine
Transmission	Electric
Driving Wheel Dia	4ft 1/4in

Number		Base	Livery
18000	D	Didcot Railway Centre	GRN

Alexandra Docks

Alexandra Docks 0-4-0ST Trojan



GWR No. 1340 is an 0-4-0ST steam locomotive, built in 1897 (Works No. 1386) by the Avonside Engine Company of Bristol, England. Its first owners were Messrs Dunn & Shute of

Newport Town Dock. In 1903 it was purchased by the Alexandra Docks Railway. This was absorbed into the Great Western Railway in 1923. In July 1932, the GWR sold it to the Netherseal colliery, Burton-on-Trent. It changed hands again in 1947, going to Alders (Tamworth) Ltd.3

Trojan is now preserved at the Didcot Railway Centre. It was restored to working order in 2002 and remained in service on demonstration trains at Didcot until 2011 when it was withdrawn for a ten-yearly overhaul. Trojan was moved offsite in 2016 for the overhaul to take place and returned in 2021.

Builder	Avonside Engine Co
Introduced	1897
Weight	22.85t
TE	11100lbf
Driving Wheel Dia	3ft
Wheel Arrangement	0-4-0ST
Boiler Pressure	160psi
Cylinder Dimensions	14in x 20in
Num Cylinders	2, outside
Length	20ft 1in
Withdrawn	1932
Wheelbase	5ft 6in
Valve Gear	Stephenson

Number	Name			Base	Livery
1340	Trojan	*1386*	P	Didcot Railway Centre	GRN

Burry Port and Gwendraeth Valley

Burry Port & Gwendraeth Valley Railway Avonside 0-6-0ST

This loco has a very interesting history. It was one of a class of 7 locomotives built by Avonside and Chapman & Furneaux (Gateshead) 1900-07 for the Burry Port & Gwendraeth Valley Railway; No.1421 was BP&GVR No.2 "Pontyberem" and they sold it in 1914 to Llewelyn (Nixon) Ltd (later Mountain Ash Colliery and later part of the National Coal Board). In 1962 it was transferred to Penrikyber Colliery and withdrawn about 1970. This loco and Barclay 0-6-0ST No.2074 of 1958 "Penrikyber No.1" worked the yard of this colliery until 1968 when one diesel shunter replaced them. It was decided to keep one of the steam locos as standby and, amazingly, it was decided to retain the 68-year-old Avonside loco rather than the Barclay one, even though it was only 10 years old! No.2 must have been very highly regarded and it had a long working life. Fortunately, it is now preserved.

GWR

Introduced	1900
Withdrawn	1914
Wheel Arrangement	0-6-0 ST
Builder	Avonside Engine Company
Weight	29t
Driving Wheel Dia	3ft 6in
Num Cylinders	2, outside

Number	Name			Base
2	Pontyberem	*1421*	O	Flour Mill Workshop, Bream

Cardiff Railway

Cardiff Railway 0-4-0ST



MRG

The Cardiff Railway had 36 steam locomotives, all built by private manufacturers, which were acquired by the GWR on 1 January 1922. Only one locomotive survives. Built in 1898 by Kitson & Co, ex-Cardiff Railway 0-4-0ST No.5, GWR No.1338, is currently preserved at the Didcot Railway Centre.

Introduced	1989
Withdrawn	1963
Wheel Arrangement	0-4-0 ST
Builder	Kitson & Co.
Weight	25t 10cwt
TE	14,540lbf

GWR

Driving Wheel Dia	3ft 2 1/1in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Valve Gear	Hawthorn Kitson
Cylinder Dimensions	14in x 21in

Number			Base	Livery
1338	*5, 3799*	D	Didcot Railway Centre	GRN

Diesel Railcar

GWR Diesel Railcars



In 1933, the Great Western Railway introduced the first of what was to become a very successful series of diesel railcars, which survived in regular use into the 1960s, when they were replaced with the new British Rail "first generation" type diesel multiple units.

The original design featured streamlined bodywork, which was very much the fashion at the time. The rounded lines of the first examples built led to their nickname: "flying banana". The preserved W4W is an example of the original, rounded body shape. Later "razor edge" examples, such as No. 27, had much more angular bodywork, yet the nickname persisted for these too.

Railcars No. 1 to No. 18 were powered by a high-speed diesel engine manufactured by A.E.C, producing a maximum brake power output of 130 hp (97 kW). The engine was of the straight 6 configuration, with a bore of 115 mm diameter and a stroke of 142 mm. This gave a total displacement of 8.85 litres. The maximum operating speed was 1,800 rpm. Railcars No. 19 onwards were powered by a modified version of the previous engine. This engine was equipped with direct injection and the bore diameter was enlarged to 120 mm. The

stroke remaining at 142 mm. This engine produced a lower brake power output of 105 hp at 1,650 rpm.

Three of the GWR railcars have survived into preservation

Introduced	1934
Withdrawn	1962
Builder	Park Royal / Gloucester RCW / GWR Swindon Works
Engine	AEC
Max Speed	63mph-80mph

Number			Base	Livery
20	*W20W*	R	Kent & East Sussex Railway	
22	*W22W*	A	Didcot Railway Centre	CHC
4	*W4W*	D	National Railway Museum	CHC

Port Talbot

Port Talbot Railway 0-6-0 ST



Dan Cardwell

What was later to become GWR 813 was completed by Hudswell Clarke (works number 555) in June 1901 at a cost of £2,189. As number 26 it was set to work from that Company's engine shed at Duffryn Yard, Port Talbot.

Following the Railway Act of 1921, the Port Talbot Railway was fully absorbed into the GWR on 1st January 1922 and all the locomotives were allocated numbers in the GWR series proper. Number 26 became GWR number 813

From the late 1920s the GWR embarked on a programme of replacing much of its ageing fleet of shunting engines together with the many of the non-standard types inherited from companies absorbed and, introduced the ubiquitous 5700 class pannier tank in 1929. Early victims included the Port Talbot Railway saddle tanks and, by 1934 all had been withdrawn from service. Five were sold for further service with the coal industry – three to pits in South Wales and two (including 813) via Robert Stephenson & Co to collieries in the Northeast of England.

After a few modifications, which included the fitting of Ross Pop valves in place of the GWR safety valves and brass bonnet, Stephenson sold the locomotive to Backworth Collieries Ltd near Newcastle-on-Tyne. There it was re-numbered 12 and put to work on the Backworth system. In 1947 the locomotive passed to newly formed National Coal Board, becoming NCB 11 in 1950.

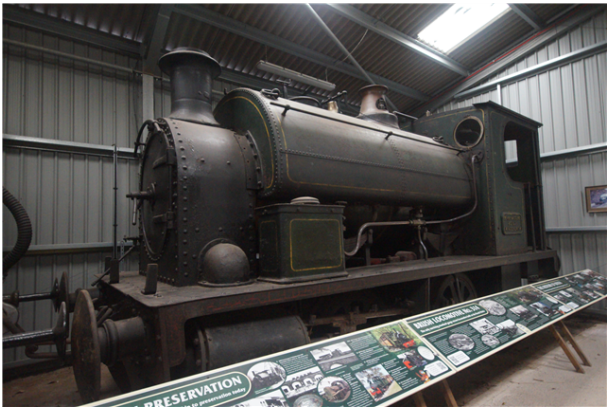
By 1966, with the contraction of the coal industry and the availability of more modern locomotives, NCB 11 was relegated to the status of spare engine at Backworth and in the following year was offered for sale to the newly formed GWR 813 Preservation Society for the sum of £320

Weight	44t 0cwt
TE	17,410lbf
Driving Wheel Dia	4ft 0 1/2in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Cylinder Dimensions	16in x 24in

Number			Note	Base	Livery
813	*26, 555*	R	0-6-0ST	Severn Valley Railway	BLK

Powlesland and Mason

Powlesland and Mason 0-4-0ST



Dan Cardwell

Powlesland and Mason were a company that provided steam locomotives and crews for shunting within Swansea Docks. They utilised a fleet of nine 0-4-0ST locomotives, which had been built between 1874 and 1916, for duties within the docks.

GWR 921 (P&M no 6) was built in 1906 by Brush and worked at Swansea Harbour. In 1924 the GWR took control of shunting operations at Swansea Docks and thus the locomotive passed into GWR ownership. It then managed to acquire a Swindon-style safety valve bonnet which it still retains.

In September 1928 the locomotive was sold to Berry Wiggins & Co Ltd who were based in Kingsnorth in Kent.

The locomotive was withdrawn in 1964 and presented to Leicester Museum of Technology in 1968.

Introduced	1906
Withdrawn	1964
Wheel Arrangement	0-4-0 ST
Builder	Brush Traction
Weight	24t 17cwt
TE	11,110 lbf
Driving Wheel Dia	3ft 6in
Boiler Pressure	140 psi
Num Cylinders	2, outside
Valve Gear	Stephenson

Cylinder Dimensions	14in x 20 in

Number			Base	Livery
921	*6, 314*	D	Mountsorrel & Rothley Community Heritage Centre	GRY

Steam Railmotor



The steam rail motors (SRM) were self-propelled carriages operated by the Great Western Railway in England and Wales from 1903 to 1935. They incorporated a steam locomotive within the body of the carriage.

In the first years of the twentieth century, railway managements turned their attention to the need to provide better local passenger services and to reduce costs, in the face of increasing demand for convenient travel and the competitive threat posed by urban tramways. The London and South Western Railway had successfully operated a railmotor, consisting of a self-contained passenger vehicle with its own steam power unit and the Great Western Railway arranged to borrow one unit for trials.

The trial proved successful, and a steam rail motor was designed by the Chief Mechanical Engineer George Jackson Churchward. Two units were manufactured, and they entered service on the 12 October 1903. A further 44 were built during 1904 and 1905, and by the time production finished in 1908 the fleet numbered 99 carriage units. There were 112 power units which could be changed between carriages to suit maintenance needs.

The relatively limited accommodation led to problems at busy periods, and driving trailers were constructed with a mechanical facility to control the main unit, so that the train could be driven from the driving trailer, maintaining the avoidance of running round at terminals.

In February 1908, a steam rail motor was turned out from Swindon railway works and given the number 93. It was one of sixteen built to Diagram R, the last batch of steam rail motors.

These were 70 feet long and 9 feet wide. After running 479,006 miles it was withdrawn in November 1934, the power unit was removed, and the carriage portion converted into an auto trailer. Now renumbered 212, it operated in this form until May 1956. It was then put into use as a "Work Study Coach" and later as a static office in Birmingham.

In 1970, it was sold to the Great Western Society and moved to their base at Didcot Railway Centre. It was not until 1998 that they were able to make a start on returning it to original condition as a steam rail motor. The frame of the new power bogie was erected in November 2000 at the Tyseley Locomotive Works and was then mounted on wheels and fitted with a boiler. In January 2009 the carriage portion was restored, and the two portions brought together. Work was completed in March 2011 and No. 93 returned to public service at Didcot in May later that year. In 2013 the restoration of auto trailer No. 92 was completed at Llangollen (as part of the same project). The railmotor and trailer ran together for the first time in preservation later in the year.

Introduced	1905
Withdrawn	1934
Builder	Kerr, Stuart
Length	70ft
Weight	45t 11cwt
TE	6,530lbf
Driving Wheel Dia	4ft
Boiler Pressure	160 psi
Num Cylinders	2
Valve Gear	Walschaerts

Number		Base
93	A	Didcot Railway Centre

Taff Vale

Taff Vale Locomotives

Locomotives from the Taff Vale Railway, which GWR inherited in the grouping.

Length	Varies
Width	Varies
Height	Varies

Taff Vale O1

Taff Vale Railway O1 Class 0-6-2T

The Taff Vale Railway (TVR) O1 class was a class consisting of fourteen 0-6-2T steam tank locomotives, designed by Tom Hurry Riches, which were introduced to the TVR during the period 1894-1897. Locomotive No. 28 is the last surviving Welsh-built standard gauge locomotive. It began its TVR career working the mineral and coal trains from collieries to port.

Absorbed into the GWR fleet, No. 28 was renumbered No. 450, and given a GWR-style cover over its safety valve, its external design was unchanged. It was withdrawn from service on 30 October 1926 but was found to be in good mechanical condition and sold to the Government in 1927, for use on the Woolmer Military Instructional Railway, later called the Longmoor Military Railway. The engine was named "Gordon", after the General of Khartoum, and was kept in immaculate condition in Hampshire.

The Second World War broke out and No. 28 was renumbered W.D. 205, then W.D. 70205, before becoming surplus again and put into storage. It was then sold in 1947 to the National Coal Board and used at their Hetton colliery railway. It was renumbered No. 67, though still retaining the "Gordon" nameplates. It received a major overhaul in 1955, but by 1959 it needed boiler repairs and was withdrawn from service in 1960.

Following requests to NCB that it should be saved, locomotive 28 was successfully presented to British Railways for preservation in 1962. It is now part of the National Collection. The rest of its classmates were unfortunately scrapped.

Introduced	1897
Withdrawn	1931
Wheel Arrangement	0-6-2T
Builder	TVR Cardiff West
Weight	57.3t
TE	18,620 lbf
Driving Wheel Dia	4ft 6 1/2in
Boiler Pressure	150 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 1/2 in × 26 in

Number			Base
450	*28, 205, 70205, 67*	O	Llangollen Railway

Taff Vale O2

Taff Vale Railway O2 Class 0-6-2T



Dan Cardwell

The Taff Vale Railway O2 class was a class of 0-6-2T steam tank locomotives designed by Tom Hurry Riches and introduced to the Taff Vale Railway in 1899.

All were withdrawn from traffic between 1926 and 1928. One locomotive, GWR 426 (TVR 85) was sold to the National Coal Board and used at their Philadelphia Colliery, numbered 52. It was subsequently saved for preservation. It was restored to original Taff Vale condition in 2000, although the paintwork didn't receive any lining out, and ran on a regular basis until 2009 when its boiler ticket expired. Due to its popularity and good condition, it received a further overhaul which was completed in February 2016. This time though, the loco's paintwork received full lining out, effectively completing its original Taff Vale appearance.

Introduced	1899
Withdrawn	1928
Wheel Arrangement	0-6-2T
Builder	Neilson, Reid &Co.
Weight	62.5t
TE	19,870lbf
Driving Wheel Dia	4ft 6 1/2in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 1/2 in × 26 in

Number	Base	Livery

426	*98184, 85, 5408, 52*	A	Keighley & Worth Valley Railway	066

Wantage

Wantage Tramway 0-4-0WT



Dan Cardwell

The locomotive was built in 1857 by George England and Co. of New Cross for the Sandy and Potton Railway, at a cost of £800. The railway was promoted by Captain Sir William Peel VC, whose estate lay between those towns, and the locomotive was named after his ship, the frigate HMS Shannon. In 1862 it was sold to the London and North Western Railway (LNWR) for shunting at Crewe Works and numbered 1104. It was renumbered 1863 in 1872.

In 1878 it was sold to the Wantage Tramway where it became No 5 and was known as 'Jane' although the name was never actually carried. It was initially fitted with full tramway skirts, but these were removed after a few years. After closure of the tramway in 1945 it was purchased by the Great Western Railway and the name 'Shannon' was reapplied. It was preserved as a static exhibit on Wantage Road railway station until that closed in 1964. In 1965 it was stored on the premises of the Atomic Energy Authority but in 1969 it was moved to the Didcot Railway Centre, where it was finally steamed and operated again in October 1969.

No. 5 Shannon is part of the UK National Collection of railway locomotives

Wheel Arrangement	0-4-0 WT
Weight	15t
TE	2,754lbf
Driving Wheel Dia	2ft 11in

Boiler Pressure	120 psi
Num Cylinders	2, outside
Cylinder Dimensions	9in x 12in
Introduced	1857
Withdrawn	1948

Number	Name			Base	Livery
5	Shannon	*1104, 209, 1863*	P	Didcot Railway Centre	062

LMS

2MT (Tank)

Ivatt Class 2MT 2-6-2T



The London, Midland and Scottish Railway (LMS) Ivatt Class 2 2-6-2T is a class of light 'mixed-traffic' steam locomotive introduced in 1946. The LMS had various elderly tank engines and the operating department required a new small class 2 locomotive to replace them. Noting that the Great Western Railway 4500 and 4575 Classes of 2-6-2T ('Prairie') had been successful, George Ivatt designed the new engine type incorporating self-emptying ashpans and rocking grates which were labour-saving devices. A tender version, the Ivatt Class 2 2-6-0 was also produced. The LMS classified them as 2P, but BR preferred the classification 2MT.

The class were withdrawn between 1962 and 1967. Four engines have survived to preservation.

Builder	LMS
Introduced	1946
TE	18510lbf
Driving Wheel Dia	5ft
Wheel Arrangement	2-6-2T
Boiler Pressure	200psi
Cylinder Dimensions	16 1/2in x 24 in
Num Cylinders	2, outside
Valve Gear	Walschaerts

LMS

Length	38ft 9.5in
Withdrawn	1967

Number			Note	Base	Livery
41241		A		Keighley & Worth Valley Railway	KWM
41298		O	The Ivatt Trust	Isle of Wight Steam Railway	
41312	*98212*	A	Caerphilly Railway Society	Mid Hants Railway	BLK
41313		A	The Ivatt Trust	Isle of Wight Steam Railway	BLK

2MT (2-6-0)

Ivatt Class 2MT 2-6-0



The London, Midland and Scottish Railway (LMS) Ivatt Class 2 2-6-0 is a class of steam locomotive designed for light mixed traffic. Elderly 0-6-0s formed the backbone of the low-powered locomotives within the LMS fleet. William Stanier had concentrated on introducing larger engines and it was left to George Ivatt to introduce a new class of low-powered locomotive. He designed a tender version of the Ivatt Class 2 2-6-2T

Further engines of this type were built as the BR Standard Class 2 2-6-0, these locomotives having BR standard fittings and a modified cab and tender profile to allow completely unrestricted route availability; both LMS and BR 2MT moguls are often nicknamed "Mickey Mouse".

A total of 128 were built between 1946 and 1953, mostly at Crewe. 20 were built by LMS and 108 by BR. Seven members of the class have been preserved and six have run so far.

LMS

Builder	LMS
Introduced	1946
Weight	47+37t
TE	17410lbf
Driving Wheel Dia	5ft
Wheel Arrangement	2-6-0
Boiler Pressure	200psi
Cylinder Dimensions	16 in × 24 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	53ft 1 3/4in
Withdrawn	1967

Number	Name			Note	Base	Livery
46428			R	Bury Standard 4 Group	East Lancashire Railway	
46441		*98241*	R		Lakeside & Haverthwaite Railway	MAR
46443		*98243*	D	SVR 46443 Fund	Severn Valley Railway	BLK
46447			A	Ivatt Locomotive Trust	East Somerset Railway	BLK
46464			R	Carmyllie Pilot Company Ltd	Strathspey Railway	
46512	E V Cooper Engineer	*98213*	O		Strathspey Railway	BLK
46521		*98221*	O	Known as 'Blossom' from appearance on "Oh Dr Beeching" TV Series but never carried the name	Great Central Railway	GRN

3F Jinty

Fowler Class 3F 0-6-0 Jinty



The London Midland and Scottish Railway (LMS) Fowler 3F 0-6-0T is a class of steam locomotive, often known as a Jinty. They represent the ultimate development of the Midland Railway's six-coupled tank engines. They could reach speeds of up to 60 mph.

Design of this class was based on rebuilds by Henry Fowler of the Midland Railway 2441 Class introduced in 1899 by Samuel Waite Johnson. These rebuilds featured a Belpaire firebox and improved cab. 422 Jinties were built between 1924 and 1931; this class was just one of the Midland designs used on an ongoing basis by the LMS.

The first withdrawals started in 1959 and by 1964 half had been withdrawn. The final five survived until 1967, with a further one, 47445 continuing with the National Coal Board. Thanks to their large numbers, renowned performance and late withdrawals, nine of these engines have been preserved, along with a spare set of frames and a boiler (from 47564). Many were restored within a few years of leaving the scrap heap, and most have a further working life ahead of them. All have steamed in preservation, with the exception of 47445.

Builder	LMS & Various subcontractors
Introduced	1924
Weight	50.29t
TE	20,830 lbf
Driving Wheel Dia	4ft 7in
Wheel Arrangement	0-6-0T
Boiler Pressure	160 psi
Cylinder Dimensions	18 in x 26 in
Num Cylinders	2, inside
Valve Gear	Stephenson, Slide valve

LMS

Length	31ft 4 3/4in
Withdrawn	1967
Max Speed	60mph
Wheelbase	16ft 6in

Number			Note	Base	Livery
16407	*47324, 7324*	O		East Lancashire Railway	
47279	*7119, 7279*	D	3F Trust	Keighley & Worth Valley Railway	BLK
47298	*7138, 7298*	O		East Lancashire Railway	
47327	*98327, 16410, 7327, 23*	D	Derby City Museum and Art Gallery	Midland Railway - Butterley	PRB
47357	*16440, 7357*	A		Midland Railway - Butterley	CLA
47383	*16466, 7383*	D	Manchester Rail Travel Society	Severn Valley Railway	BLK
47406	*16489, 7406*	O		Locomotive Maintenance Services, Loughborough	BLK
47445	*16528, 7445*	O	Derby City Museum and Art Gallery	Midland Railway - Butterley	074
47493	*16576, 7493*	O		Spa Valley Railway	
47564	*16647, 7564*	S	Stationary Boiler 2022. Spares donor. Derby City Museum and Art Gallery	Midland Railway - Butterley	

4F

LMS Fowler Class 4F 0-6-0



Dan Cardwell

The London Midland and Scottish Railway Fowler Class 4F is a class of 0-6-0 steam locomotive designed for medium freight work. They represent the ultimate development of Midland Railway's six coupled tender engines.

The 4F was based on the 197-strong Midland Railway 3835 Class of 1911, with only a few modifications, primarily the adoption of left-hand drive instead of right-hand drive. They originally had been designed by Henry Fowler, who from 1925 became CME of the LMS. Midland Railway locomotives were notorious for their short axle-box bearings, which were prone to overheating. This design feature was perpetuated in the LMS 4F. The problem was eventually solved with the fitting of mechanical lubricators.

The LMS constructed 530 of the locomotives between 1923 and 1928, numbered sequentially from where the Midland engines left off from 4027. A further 45 examples were reluctantly authorised by William Stanier in 1937 at the behest of the operating department.

All entered British Railways stock in 1948. BR added 40000 to their numbers. They were all withdrawn between 1959 and 1966. Three LMS-built 4Fs survive, with the first-built LMS 4F, No. (4)4027, being part of the National Collection. In addition, one Midland 4F, No. (4)3924 has also survived.

Length	52ft 0 1/8in
Introduced	1924
Withdrawn	1966
Wheel Arrangement	0-6-0
Builder	LMS & Various subcontractors

LMS

Weight	49.53t
TE	24,555 lbf
Driving Wheel Dia	5ft 3in
Boiler Pressure	175 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	20 in x 26 in

Number			Note	Base	Livery
44027	*98427, 4027*	R		Vale of Berkeley Railway	
44123	*4123*	R	The London Midland Society	Avon Valley Railway	
44422	*4422*	O	44422 Locomotive Company Limited	Churnet Valley Railway	BLK

4MT (Fairburn)

4MT Fairburn 2-6-4T



42073 at Newby Bridge, 09/21

MRG

The LMS Fairburn Tank 2-6-4T is a class of steam locomotive. They were designed by Charles E. Fairburn. 277 of these locomotives were built between 1945 and 1951, numbered in the range 42050-42186, (4)2187-(4)2299, (4)2673-(4)2699.

This design was based on the earlier Stanier LMS Stanier 2-6-4T, which was derived from Henry Fowler's LMS Fowler 2-6-4T engine. Fairburn modified the design to have a shorter wheelbase, allowing curves of 5 chains to be negotiated; to reduce the locomotives mass

per unit length the overall weight was reduced. It was also the basis for the later British Rail Standard Class 4 tank.

The class was withdrawn between 1961 and 1967. Two of the Brighton-built locomotives have survived in preservation.

Builder	LMS Derby & BR Brighton
Introduced	1945
Weight	86.06t
TE	24,670 lbf
Driving Wheel Dia	5ft 9in
Wheel Arrangement	2-6-4 T
Boiler Pressure	200psi
Cylinder Dimensions	19 5/8 in x 26 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	45ft 9 3/4in
Withdrawn	1967
Wheelbase	37ft 1in

Number		Note	Base	Livery
42073	A	Lakeside Railway Estates Company	Lakeside & Haverthwaite Railway	BLK
42085	A	Lakeside Railway Estates Company	Lakeside & Haverthwaite Railway	BLK

4MT (Ivatt)

Ivatt Class 4 2-6-0 4MT



The LMS Ivatt Class 4 2-6-0 is a class of steam locomotive primarily designed for medium freight work but also widely used on secondary passenger services. The LMS ordered 162 of this type between 1947 and 1952, but only three were built by the LMS before nationalisation in 1948. Designed by George Ivatt, they were classified 4F by the LMS and 4MT by BR.

Only one example survived into preservation, No 43106, the final member of the class in service

Builder	LMS: Horwich, BR: Horwich, Doncaster & Darlington
Introduced	1947
TE	24,170 lbf
Weight	60.05t
Driving Wheel Dia	5ft 3in
Wheel Arrangement	2-6-0
Boiler Pressure	225psi
Cylinder Dimensions	17 1/2in x 26in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	55ft 11in
Withdrawn	1968

Number			Note	Base	Livery
43106	*98406, 2968*	A	Ivatt Class 4 Group	Severn Valley Railway	BLK

4MT (Stanier)

3-Cylindered Stanier 2-6-4T 4MT



Dan Cardwell

LMS Stanier Class 4P 3-Cylinder 2-6-4T is a class of steam locomotive designed for work over the London, Tilbury and Southend Railway route. All 37 were built in 1934 at Derby Works and were numbered 2500–2536. The third cylinder was provided to allow increased acceleration between the many stops on the L.T.&S.R. line. The inside cylinder and valve gear created additional maintenance and was deemed unnecessary for other duties. The locomotives were built in 1934 at LMS Derby Works.

The class were withdrawn from 1960 to 1962. The first member of the class to be built, No. 2500 is the sole survivor of this class and is painted in LMS lined black livery.

Builder	LMS Derby
Introduced	1934
Weight	93.73t
TE	24,600 lbf
Driving Wheel Dia	5ft 9in
Wheel Arrangement	2-6-4 T
Boiler Pressure	200 psi
Cylinder Dimensions	16 in x 26 in
Num Cylinders	3
Valve Gear	Walschaerts
Length	47ft 2 3/4in
Width	8ft 11 1/2in
Height	12ft 10 1/2in
Withdrawn	1962

Wheelbase	38ft 6in

Number			Base	Livery
2500	*42500*	D	East Lancashire Railway	BLK

5MT (Crab)

Hughes Crab Class 5MT 2-6-0



Dan Cardwell

The LMS Hughes Crab or Horwich Mogul is a class of mixed-traffic 2-6-0 steam locomotive built between 1926 and 1932. They are noted for their appearance with large steeply angled cylinders to accommodate a restricted loading gauge.

Designed by George Hughes, Chief Mechanical Engineer of the LMS, and built at the ex-L&YR works at Horwich and the ex-LNWR works at Crewe. The inspiration came from a Caledonian Railway 2-6-0 design at the grouping; however, the cylinders were too large for the LMS's English section's loading gauge, resulting in Hughes having to adapt the concept. They were put into service by his successor, Henry Fowler. The design incorporated a number of advanced features for the time such as long travel valves, compensated brake gear, a new design of tender and a new boiler, the latter based on the one fitted to Hughes's four-cylinder Baltic tank locomotives built at Horwich.

When an order was placed by the traffic department for delivery of 40 more examples of this type, the new Chief Mechanical Engineer, William Stanier, decided to introduce a taper boiler version, in line with his policy of using taper boilers on all new locomotive designs. There were so many changes to the layout of the locomotive, such as higher boiler pressure and smaller cylinders, that it became a new design, the LMS Stanier Mogul.

The class survived intact until 1961 when three were withdrawn. The remainder of the class were withdrawn over the next six years. Of the 245 built, three have survived to preservation

Builder	LMS
Introduced	1926
Weight	67t
TE	26,580 lbf
Driving Wheel Dia	5ft 6in
Wheel Arrangement	2-6-0
Boiler Pressure	180 psi
Cylinder Dimensions	21 in x 26 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	59ft 3 7/8in
Withdrawn	1967

Number			Note	Base	Livery
13000	*42700, 2700*	D		National Railway Museum	LMS
13065	*98565, 42765, 2765*	O		East Lancashire Railway	LMS
42859	*13159, 2859*	S	boiler cut up	East Lancashire Railway	

5MT (Stanier)

Stanier Class 5MT 2-6-0 Mogul



13268 at Severn Valley Railway

Dan Cardwell

The LMS Stanier Class 5 2-6-0 or Stanier Mogul is a class of 2-6-0 mixed traffic steam locomotive. Forty were built between October 1933 and March 1934. Although all built at Crewe Works, they were designed at Horwich Works and were developed from the Horwich Mogul, the LMS Hughes Crab 2-6-0. They had the addition of several features brought over from the Great Western Railway by newly arrived Chief Mechanical Engineer William Stanier.

40 were built but only one, 13268/(4)2968, the penultimate member of the class to be withdrawn, has been preserved.

Builder	LMS
Introduced	1933
Weight	70.21t
TE	26,290 lbf
Driving Wheel Dia	5ft 6in
Wheel Arrangement	2-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	18 in x 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	59ft 10 3/4in
Withdrawn	1967

Number	Note	Base	Livery

13268	*98568, 42968, 2968*	O	Stanier Mogul Fund	Severn Valley Railway	BLK

6P Jubilee

LMS 6P Jubilee 4-6-0



Dan Cardwell

The LMS Jubilee Class is a class of steam locomotive designed for main line passenger work. 191 locomotives were built between 1934 and 1936. They were built concurrently with the similar looking LMS Stanier Class 5 4-6-0. They were nicknamed Red Staniers (due to their crimson liveries) and Jubs.

The last five locomotives of Henry Fowler's Patriot class on order, 5552 to 5556, were built with William Stanier's taper boiler and so became the first of the Jubilee class. 113 locomotives were ordered straight from the drawing board. They were initially a disappointment; their moderate degree of superheating often left them short of steam. Changes to the blastpipe and chimney dimensions helped to transform them.

Four Jubilees have been preserved, two each built by Crewe Works and by North British. 45593 and 45596 were purchased directly from BR for preservation. The other two were rescued from Woodham Brothers. All four have operated in preservation and all have run on the main line.

Builder	LMS & North British
Introduced	1934
Weight	80.83t
TE	26,610 lbf
Driving Wheel Dia	6ft 9in

LMS

Wheel Arrangement	4-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	17 in × 26 in
Num Cylinders	3
Valve Gear	Walschaerts
Diagram	LMS Lot nos. 97, 112, 113, 118, 121, 129
Length	64ft 8 3/4in
Withdrawn	1967

Number	Name			Note	Base	Livery
45593	Kolhapur	*98693, 5593*	O	7029 Clun Castle Ltd	Tyseley Locomotive Works	CLA
45596	Bahamas	*98696, 5596*	A	Bahamas Locomotive Society	Keighley & Worth Valley Railway	GRN
45690	Leander	*98690, 5690*	A		West Coast Railway Co. Carnforth	BLK
45699	Galatea	*98699, 5699, 45562, 45627*	A		West Coast Railway Co. Carnforth	CLA

7F

S&DJR 7F 2-8-0



The Somerset and Dorset Joint Railway (S&DJR) 7F 2-8-0 is a class of steam locomotive designed for hauling heavy coal and goods trains. Eleven were built in two batches in 1914 and 1925 and were used until withdrawal between 1959 and 1964.

LMS

The Midland Railway, joint owners of the S&DJR with the London and South Western Railway, were in charge of locomotive policy on the line. The S&DJR was heavily graded and required power over and above what was available from the Midland's small engines. M. H. Ryan, S&DJR locomotive superintendent argued for a type specific to the line. Two plans for 0-8-0s were suggested in 1907 but would have been too heavy.

James Clayton the draughtsman at Derby was given a free hand to design the engine and produced something unlike any other Derby-designed locomotive of the time. The design used the G9AS boiler from the Midland Compounds, with a Belpaire firebox and Walschaerts valve gear. A leading pony truck was added, to distribute the weight, making it a 2-8-0. The cylinders were mounted high on the frame, and sloped, to avoid fouling platforms.

The S&DJR locos were taken into LMS stock in 1930 and renumbered 9670–9680. They were renumbered as 13800–13810 in 1932. On nationalisation in 1948 BR added 40000 to their numbers making them 53800–53810. Withdrawals of the locomotives occurred between 1959 and 1964.

Two are preserved.

Length	58ft 10 1/8in
Width	8ft 7 1/2in
Height	13ft 3in
Introduced	1914
Withdrawn	1964
Wheel Arrangement	2-8-0
Builder	Midland Railway, Derby Works & Robert Stephenson & Co.
Weight	65.8t
TE	35,295 lbf
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	190 psi
Num Cylinders	2, outside
Valve Gear	Walschaerts
Cylinder Dimensions	21 in x 28 in

Number			Note	Base	Livery
53808	*88, 9678, 13808*	A	The Somerset & Dorset Railway Trust	Mid Hants Railway	BLK
53809	*98709, 89, 9679, 13809*	D	13809 Preservation Society ltd	Midland Railway - Butterley	BLK

8F

Stanier 8F Class 2-8-0



The London Midland and Scottish Railway's class 8F is a class of steam locomotive designed for hauling heavy freight. 852 were built between 1935 and 1946 (not all to LMS order), as a freight version of William Stanier's successful Black Five, and the class saw extensive service overseas during and after the Second World War.

On the outbreak of the Second World War, the design was chosen to become the country's standard freight design, reprising the role the GCR Class 8K had in the First World War. The War Department had 208 8Fs built by Beyer Peacock and North British Locomotive Company and requisitioned 51 more. Stanier 8F production for the WD continued until 1943 when the cheaper WD Austerity 2-8-0 was introduced. Production for British domestic use continued until 1946.

60 were built by the LNER to Railway Executive Committee order between 1943 and 1945. These were considered LMS stock and numbered as such (LMS Nos 8500-59). These were loaned by the REC to the LNER. The LNER subsequently chose to build some of the design for themselves. These were classified by the LNER as class O6.

None of the former LNER Class O6 engines were preserved. However, fourteen 8Fs are known to have survived with six LMS/BR locomotives being preserved in the UK; a seventh was used a spares donor. None of the pre-war 8Fs survived into preservation. Three members of the class have over the years been repatriated to the UK from Turkey, with one later sent to a museum in Israel. In addition, two Turkish Railway (TCDD) locomotives have been preserved in Turkey, and some more remain there in a derelict state. One locomotive has even survived in Iraq. Two more are also visible underwater on the wreck of the SS Thistlegorm. In addition, 1 LNER-built example (48518) survived, but was used as a parts donor for 1014 County of Glamorgan and 45551 The Unknown Warrior. It was consequently dismantled, and the frames were scrapped at Bury in mid-2013.

LMS

Wheel Arrangement	2-8-0
Builder	LMS & Various subcontractors for WD
Introduced	1934
Weight	73.26t
TE	32,440 lbf
Driving Wheel Dia	4ft 8 1/2in
Boiler Pressure	225 psi
Cylinder Dimensions	18 1/2 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	63ft 0 1/2in
Withdrawn	1968
Wheelbase	52ft 7 3/4in

Number			Note	Base	Livery
45153	*357*	E	Stored pending restoration	Cankiri, Turkey	
45161	*WD 522, 522*	E		TCDD Mueum, Camlik, Turkey	
45165	*WD 353, 353, 8279*	E		Alaseher, Turkey	
45168	*WD 340, 340, 8266*	E	Plinthed	Izmit, Turkey	
45170	*WD554, 554*	R		Bo'ness & Kinneil Railway	
48151 [1]	*98851, 8151*	A		West Coast Railway Co. Carnforth	BLK
48173	*8173*	R		Churnet Valley Railway	
48305	*8305*	A		Great Central Railway	BLK
48431	*8431*	D		Keighley & Worth Valley Railway	BLK
48518	*8518*	X	Spares donor		
48624	*8624*	O	48624 Locomotive Company Limited	Great Central Railway	BLK
48773	*98873, 8233, 307, 70307, 500*	D	Stanier 8F Locomotive Society	Severn Valley Railway	BLK
70414	*8267, 341, WD 341, 45166*	E		Beersheba, Israel	

LMS					
8274	*WD 348, 348, 45160*	S	Churchill 8F Company	Churchill 8F Locomotive Company, Malvern	BLK
WD 547	*1429, 547, 8188*	E		IRR, Baghdad, Iraq	

Notes
1: Name: Gauge O Guild

8P Coronation

Class 8P Coronation



Dan Cardwell

The LMS Coronation Class is a class of express passenger steam locomotives designed by William Stanier. They were an enlarged and improved version of his previous design, the LMS Princess Royal Class, and on test were the most powerful steam locomotives ever used in Britain at 2,511 dbhp.

The first ten locomotives of the Coronation class were built in a streamlined form in 1937 by the addition of a steel streamlined casing. Five of these ten were specifically set aside to pull the Coronation Scot. Although a later batch of five unstreamlined locomotives was produced in 1938, most of the ensuing Coronation class were outshopped as streamliners. From 1944 until production ended in 1948, all-new engines were built in unstreamlined form, and all the streamliners had their casings removed. The last of the 38 locomotives was completed in 1948.

After a successful decade of operations in the 1950s, the 1960s' modernisation plan was the ultimate undoing of the Coronations. The increasing use of diesel locomotives made many of the class redundant, and the electrification of the main line between London Euston and

Crewe resulted in their banishment from this important section of the main line as there was insufficient clearance between the locomotives and the live wires. With no useful role to play, the survivors were scrapped from late 1962 to late 1964. Three locomotives were saved for preservation, with one of them ending up in the National Collection.

Builder	LMS Crewe Works
Introduced	1937
Weight	110t (Streamlined) 106.94t (Conventional)
TE	40,000 lbf
Driving Wheel Dia	6ft 9in
Wheel Arrangement	4-6-2
Boiler Pressure	250 psi
Cylinder Dimensions	16 1/2 x 28 in
Num Cylinders	4
Valve Gear	Walschaerts
Length	73ft 10 3/4in
Height	13ft 3in
Withdrawn	1964
Max Speed	114mph

Number	Name			Note	Base	Livery
46235	City of Birmingham	*6235*	D		Thinktank, Millennium Point, Birmingham	BLK
6229	Duchess of Hamilton	*98829, 46229*	D		National Railway Museum	CLA
6233	Duchess of Sutherland	*98834, 46233*	A	The Princess Royal Class Locomotive Trust	Midland Railway - Butterley	CLA

Black 5 (5MT)

Stanier Class 5 4-6-0 Black Five



The LMS Stanier Class 5 4-6-0, commonly known as the Black Five, is a class of 4-6-0 steam locomotives. It was introduced by William Stanier and built between 1934 and 1951, of which 842 were built and were numbered 4658-5499 (BR then renumbered 44658-45499).

The Black Five was a mixed-traffic locomotive, a "do-anything go-anywhere" type, designed by Stanier, who had previously been with the GWR. In his early LMS days, he designed his Stanier Mogul 2-6-0 in which he experimented with the GWR school of thought on locomotive design. A number of details in this design he would never use again realising the superiority of details not used on the GWR. Stanier realised that there was a need for larger locomotives. These were to be the LMS version of the GWR Halls but not a copy, as the Hall was too wide to run most places in Britain. They shared similar cylinder arrangement, internal boiler design and size and 6-foot driving wheel diameters.

Several members of the class survived to the last day of steam on British Railways in 1968, and eighteen are preserved.

Builder	LMS & Various subcontractors
Introduced	1934
Weight	76t
TE	25,455 lbf
Driving Wheel Dia	6ft
Wheel Arrangement	4-6-0
Boiler Pressure	225 psi
Cylinder Dimensions	18 1/2 in × 28 in
Num Cylinders	2, outside
Valve Gear	Most Walschaerts, some Caprotti, one Stephenson

LMS

Length	63ft 7 3/4in
Withdrawn	1968

Number	Name			Note	Base	Livery
44767	George Stephenson	*98567, 4767*	O		West Coast Railway Co. Carnforth	BLK
44806	Kenneth Aldcroft	*4806*	A		North Yorkshire Moors Railway	BLK
44871	Sovereign	*98571, 4871*	A	Riley and Son E Ltd	West Coast Railway Co. Carnforth	BLK
44901		*4901*	S	Black 5 44901 Co Ltd	RSS Wishaw	
44932		*98532, 4932*	O		West Coast Railway Co. Carnforth	BLK
45000		*98500, 5000*	D		Locomotion - NRM Shildon	BLK
45025		*98525, 5025*	A		Strathspey Railway	BLK
45110		*98510, 5110*	A		West Coast Railway Co. Carnforth	BLK
45163		*5163*	R		Riley & Son, Irwell	
45212		*5212*	A		East Lancashire Railway	BLK
45231	The Sherwood Forester	*98531, 5231*	A		Locomotive Services, Crewe	BLK
45293		*5293*	R	The British Enginemen Steam Preservation Society	Colne Valley Railway	
45305	Alderman A E Draper	*98505, 5305*	O		Great Central Railway	BLK
45337		*5337*	O	26B Railway Co Ltd	East Lancashire Railway	BLK
45379		*5379*	D		One:One Collection	BLK

LMS

45407	The Lancashire Fusilier	*98507, 5407*	A	West Coast Railway Co. Carnforth	BLK
45428	Eric Treacy	*98528, 5428*	A	North Yorkshire Moors Railway	BLK
45491		*5491*	R	Great Central Railway	

CR 123

Caledonian Railway 123 Class 4-2-2

Caledonian Railway Single No.123 is a preserved Scottish steam locomotive.

The unique 4-2-2 was built by Neilson and Company in 1886, works No. 3553, as an exhibition locomotive. It entered London, Midland and Scottish Railway service in 1923 and the LMS renumbered it 14010 and gave it the power classification 1P. During the 1920s it was allocated to working the directors' saloon, but it was returned to ordinary service in 1930.

The locomotive was withdrawn in 1935, by which time it was the last single-wheeled express engine running in Britain and set aside for preservation. Restored to steam by British Railways in 1958, it ran railtours and enthusiast specials until the end of steam in Scotland.

Introduced	1886
Withdrawn	1935
Wheel Arrangement	4-2-2
Builder	Neilson & Co.
Weight	42.01t
TE	13,638 lbf
Max Speed	60mph
Driving Wheel Dia	7ft
Boiler Pressure	160 psi
Num Cylinders	2, inside
Cylinder Dimensions	18in x 26in

Number			Base	Livery
14010	*123, 1123*	D	Glasgow Riverside Museum	CAB

CR 439

CR 439 Class 0-4-4T



MRG

The Caledonian Railway 439 Class is a class of 0-4-4T steam locomotive. It was a development of earlier Caledonian Railway 0-4-4T locomotives, including the 19 Class and 92 Class, and predecessor of the 431 Class. The 439 Class was introduced by John F. McIntosh in 1900 and a modified version was introduced by William Pickersgill in 1915.

Ninety-two engines of the class were built between 1900 and 1925, a few under LMS auspices. Seventy-four Class 439s passed into British Railways ownership in 1948.

One example, CR 419, (later LMS number 15189, BR 55189) has been preserved.

Introduced	1907
Builder	St Rollox
Weight	54.7t
TE	18,680 lbf
Boiler Pressure	180 psi
Valve Gear	Stephenson slide valves
Cylinder Dimensions	18 x 26 inches
Wheel Arrangement	0-4-4T
Driving Wheel Dia	5ft 9in
Num Cylinders	2, inside

Number			Base	Livery
15189	*55189, 419*	A	Bo'ness & Kinneil Railway	LMS

CR 812

CR Class 812 0-6-0



MRG

The Caledonian Railway 812 and 652 Classes were 0-6-0 steam tender locomotives designed by John F. McIntosh for the Caledonian Railway and introduced in 1899. They had the same boiler type as the 721 "Dunalastair" Class 4-4-0s. They could reach speeds of up to 55 mph.

96 locomotives were built, seventeen were fitted with the Westinghouse air brakes for passenger train working, including the only surviving engine of the class, No. 828. All 96 passed to the London, Midland and Scottish Railway at the 1923 grouping. Only three, 17567, 17598 and 17610, had been withdrawn by the time of nationalisation in 1948. The last locomotive in service was not withdrawn until 1963.

Wheel Arrangement	0-6-0
Builder	St Rollox Works
Introduced	1899
Driving Wheel Dia	5ft
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson, Slide valves
Cylinder Dimensions	18 1/2 in × 26 in
Length	56ft 2in
Withdrawn	1963
Weight	46.38t
TE	20,170 lbf
Max Speed	55mph

Number			Base	Livery
828	*17566, 57566*	A	Spa Valley Railway	CAB

D16/1

Replica of LMS 10000

LMS No. 10000 and 10001 were the first mainline diesel locomotives built in Great Britain. They were built in association with English Electric by the London, Midland and Scottish Railway at its Derby Works, using an English Electric 1,600 hp diesel engine, generator and electrics.

Under British Railways, the locomotives became British Railways Class D16/1; they were initially operated primarily on mainline express passenger services on former LMS lines, both in single and in multiple. In 1953, they were transferred to the Southern Region for comparison with Bulleid's British Rail Class D16/2 diesel locomotives.

Both locomotives were withdrawn and scrapped in the 1960s. In 2011, the Ivatt Diesel Re-creation Society announced plans to build a replica of no. 10000, using contemporary parts as well as new build components.

The society has sourced a Mark 1 English Electric 16SVT diesel engine dating to the 1940s and the sole remaining Metropolitan Vickers bogies dating from the 1950s, formerly used by a class EM2 electric locomotive in England and the Netherlands. These bogies are of the same design as on the original 10000 although with weaker springs, which will be replaced. The society has purchased Class 58 diesel 58022 which will be used as the new locomotive's chassis.

Diagram	LMS Lot 198
Length	61ft 2in
Width	9ft 3in
Height	12ft 11 1/2in
Introduced	1947
Withdrawn	1966
Wheel Arrangement	Co-Co
Builder	LMS Derby (Originals) Centenary Works (Replica)
Power	1600HP
TE	41400 lbf
Engine	English Electric 16SVT Mk I

Furness 17

FR Class 17 0-4-0



April 2026

MRG

Constructed by Sharp Stewart & Co to order 440, this 0-4-0 tender locomotive was one of a batch of eight locomotives constructed for the Furness Railway. It was completed in 1863 and is the country's oldest working steam locomotive.

In 1870 the first six of the class, F.R. Nos. 17, 18, 19, 20, 25 and 26 were sold to the Barrow Haematite Steel Co. at Barrow. No. 20 continued in traffic until 1960 when diesel locomotives were introduced, it completed 90 years' service at the steelworks, and just 3 years short of its centenary!

BHSC No. 7 stood in the grounds of the George Hastwell Special School in Abbey Road, Barrow for over twenty years, until it was purchased privately in 1983 and moved to the Steamtown Railway Museum at Carnforth in Lancashire. Following a grant of 97,000 from the Heritage Lottery Fund and contributions from other groups, the Furness Railway Trust were able to begin the overhaul in earnest. The stripped-down frames and motion of F.R. No. 20 were delivered to the Barrow-in-Furness workshops on 18th December 1996. After a total rebuild, including the construction of a new boiler and tender, the locomotive emerged two years later on 17th December 1998, resplendent in Furness Railway Indian Red livery.

Diagram	440
Introduced	1863
Withdrawn	1960
Wheel Arrangement	0-4-0
Builder	Sharp, Stewart & Co.
Driving Wheel Dia	4ft 9in

LMS

Num Cylinders	2, inside

Number			Note	Base	Livery
20	*7, 1448*	P	Furness Railway Trust	Ribble Steam Railway	063

Furness 17 Tank

FR Class 17 0-4-0 ST

Constructed by Sharp Stewart & Co to order 440, this 0-4-0 tender locomotive was one of a batch of eight locomotives constructed for the Furness Railway.

In 1870 the first six of the class, F.R. Nos. 17, 18, 19, 20, 25 and 26 were sold to the Barrow Haematite Steel Co. at Barrow. No. 25 continued in traffic until 1960 when diesel locomotives were introduced, it completed 90 years' service at the steelworks.

BHSC 17 stood in the grounds of the Stone Cross Special School at Ulverston until the school closed around 1980. At some stage it was bought privately and moved to Steamtown at Carnforth.

In May 2018 it was reported that the locomotive had been donated to the Furness Railway Trust who already owned Furness Railway locomotive No 20. The locomotive was moved from the West Coast Railway base at Carnforth to the Ribble Steam Railway headquarters at Preston in November 2018. The locomotive will be restored as a saddle tank classmate (Furness Railway No 20) has been restored as a 0-4-0 tender engine.

Introduced	1863
Withdrawn	1960
Wheel Arrangement	0-4-0 ST
Builder	Sharp, Stewart & Co.
Num Cylinders	2, inside

Number		Base
25	*6, 17, 1585*	Ribble Steam Railway

Furness 3

FR Class 3 0-4-0



The Furness Railway No.3, nicknamed "Old Coppernob", is a preserved English steam locomotive. It acquired its nickname because of the copper cladding to its dome-shaped "haystack" firebox.

It was built in 1846 by Bury, Curtis, and Kennedy of Liverpool, a company with which the Furness Railway's first locomotive superintendent, James Ramsden, had been an apprentice. It is a four-coupled version of Edward Bury's popular bar-frame design of the period, with iron bar frames and inside cylinders, and is historically significant as the only survivor in the United Kingdom of this type. It is also one of the few items of rolling stock surviving from the Furness Railway whose Indian red livery it carries.

It shared with three other similar engines all traffic on the Furness Railway for around six years. Latterly it was used for shunting around the docks at Barrow-in-Furness and on local duties, being withdrawn in 1900, completing nearly 55 years of service. It is now preserved as a part of the national collection. It has shrapnel wounds from German bombs, acquired during World War II when it was displayed in a glass pavilion at Barrow-in-Furness station.

Introduced	1846
Withdrawn	1900
Wheel Arrangement	0-4-0
Builder	Edward Bury
Weight	19.8t
TE	7,718 lbf
Driving Wheel Dia	4ft 9in
Boiler Pressure	110 psi
Num Cylinders	2, inside

Cylinder Dimensions	14 in × 24 in

Number	Name		Base	Livery
3	Coppernob	D	National Railway Museum	063

GWSR 322

GSWR 322 Class 0-6-0T

The G&SWR 322 Class were 0-6-0T steam locomotives designed by Peter Drummond for the Glasgow and South Western Railway (G&SWR) and introduced in 1917. The class was originally designated 5 Class but, after the G&SWR's 1919 renumbering, this was changed to 322 Class. After passing to the London, Midland and Scottish Railway in 1923 they were given power classification 2F.

The 5 Class were built to replace elderly 0-4-0 tender locomotives on a number of freight lines which featured sharp curves and steep gradients. Although they were a successful design, they were a non-standard type and the LMS Northern Division had plenty of former Caledonian Railway 498 Class dock tanks, so the three locomotives were withdrawn in 1934. As they were not yet life-expired, two of the locomotives were sold to collieries and eventually became the property of the National Coal Board.

By the mid 1950s the former number 9 was the last Glasgow and South Western Railway locomotive in existence. In 1963 it was acquired by British Railways for preservation.

Introduced	1917
Builder	North British Locomotive Company, Hyde Park Works, Glasgow
Driving Wheel Dia	4ft 2in
Boiler Pressure	160psi
Num Cylinders	2
Valve Gear	Walschaerts
Cylinder Dimensions	17 in × 22 in
Withdrawn	1934
Wheel Arrangement	0-6-0 T
Weight	41t
TE	17,294 lbf

Number			Note	Base
9	*16379, 324, 21521*	D	0-6-0T	Glasgow Riverside Museum

HR 4F

HR Jones Goods Class 4-6-0

The Highland Railway Jones Goods class was a class of steam locomotive and was notable as the first class with a 4-6-0 wheel-arrangement in the British Isles. Originally known as the Big Goods class, they became class I under Peter Drummond's 1901 classification scheme.

Fifteen locomotives were built by Sharp, Stewart and Company and delivered between September and November 1894, numbered 103 to 117. At the time, these were the most powerful main line engines in the country. Originally intended principally as freight engines, they were often called upon for passenger duties during the wide fluctuations of traffic which occurred on the Highland Railway, particularly during the summer season.

The first of the class, Number 103, (LMS 17916) was set aside for preservation by the LMS in 1934. It was restored to working order by British Railways in 1959 and spent several years operating enthusiasts' tours. It was finally retired in 1966. In addition to being the first ever British 4-6-0, no. 103 has since 1966 also had the less positive distinction of being the only former Highland Railway locomotive still in existence.

Introduced	1894
Withdrawn	1940
Wheel Arrangement	4-6-0
Builder	Sharp, Stewart & Co.
Weight	56.9t
TE	24,555 lbf
Driving Wheel Dia	5ft 3in
Boiler Pressure	175 psi
Num Cylinders	2, outside
Cylinder Dimensions	20 in x 26 in

Number			Base	Livery
103	*17916, 4022*	D	Glasgow Riverside Museum	072

LNWR 2-2-2

LNWR 2-2-2 Cornwall



Dan Cardwell

London & North Western Railway 2-2-2 No. 3020 Cornwall is a preserved steam locomotive. She was built at Crewe in 1847. She was originally a 4-2-2 in 1847, but was extensively rebuilt, and converted to a 2-2-2 in 1858.

As completed in 1847, and first numbered 173, Cornwall was a 4-2-2 with 8 ft 6 in drivers, paired leading wheels of 3 ft 6 in, single trailing wheels of 4 ft and an overall wheelbase of 16 ft 6 in. It was exhibited at the Great Exhibition of 1851 in this condition.

In 1858, Ramsbottom redesigned Cornwall almost completely. Little survived unchanged, other than the outside frames and the centres of the drivers. The boiler was now moved entirely above the driving axle, without any notches, channels or tubes, to what would now be regarded as conventional practice. New cylinders and valve gear were provided. Wheel arrangement was now 2-2-2, shortening the wheelbase still further. Ramsbottom also included his newly designed tamper-proof safety valves. Another minor rebuild in the 1870s provided a typically LNWR style of cab, with a short roof and semi-open sides. She was given her current number of 3020, in June 1886.

Cornwall was a famously successful high-speed passenger express engine of its period. On final retirement, Cornwall was deliberately preserved, one of the first locomotives to be so treated.

Introduced	1847
Withdrawn	1925
Wheel Arrangement	2-2-2
Builder	LNWR Crewe
TE	8,575 lbf

LMS

Max Speed	70mph
Driving Wheel Dia	8ft 6in
Wheelbase	14ft 10in
Num Cylinders	2, outside
Cylinder Dimensions	17 1/4 in × 24 in

Number	Name			Base
3020	Cornwall	*173*	D	Buckinghamshire Railway Centre

LNWR 835

LNWR Class 835 4ft Shunter 0-4-0ST

The London and North Western Railway (LNWR) 4ft Shunter was a class of 0-4-0ST steam locomotives. Introduced in 1863 by Ramsbottom, 26 were built in 1863–1865, 10 in 1870, 10 in 1872, and 10 in 1892. The last three of the latter batch were soon rebuilt as 0-4-2ST crane tanks. They survived into LMS ownership in 1923 and the last one was withdrawn in 1933.

One example survives in the NRM collection.

Introduced	1863
Withdrawn	1953
Wheel Arrangement	0-4-0 ST
Builder	Crewe Works
Weight	25.1t
TE	8,075 lbf
Driving Wheel Dia	4ft
Wheelbase	8ft
Boiler Pressure	120 psi
Num Cylinders	2, inside
Cylinder Dimensions	14 in × 20 in

Number			Base
1439	*1985, 3042*	D	Ribble Steam Railway

LNWR Coal Tank

LNWR 0-6-2T Webb Coal Tank



Coal Tank at Ecclesbourne

Dan Cardwell

The London and North Western Railway (LNWR) Webb Coal Tank is a class of 0-6-2T steam locomotive. They were called "Coal Tanks" because they were a side tank version of Webb's standard LNWR 17in Coal Engine, an 0-6-0 tender engine for slow freight trains. The design was introduced in 1881 by F.W. Webb and had the same cheaply produced cast iron wheels and H-section spokes as the tender engines. A trailing radial axle supporting the bunker was added also with two similarly cast-iron wheels.

Three hundred were built between 1881 and 1897. One Coal Tank number BR 58926, ex-LMS 7799, originally LNWR 1054, the 250th one built, has survived in preservation. The locomotive is owned by the National Trust and is maintained and run by the Bahamas Locomotive Society

Introduced	1888
Withdrawn	1958
Wheel Arrangement	0-6-2T
Builder	Crewe
Weight	44.5t
TE	16,530 lbf
Boiler Pressure	150 psi
Num Cylinders	2, Inside
Valve Gear	Stephenson
Cylinder Dimensions	17 in × 24 in
Driving Wheel Dia	4ft 5 1/2in

Number			Note	Base	Livery
1054	*58926, 7799*	P	Bahamas Locomotive Society	Keighley & Worth Valley Railway	BLK

LNWR G2 Super D

LNWR G2 Class 0-8-0 Super D



The LNWR Class G2 is a class of 0-8-0 steam locomotives. 60 were built at Crewe Works in 1921–1922. Uniquely amongst classes of LNWR 8-coupled tender engines, they were not rebuilt from or into other classes.

The class were withdrawn between 1959 and 1964 with the first member of the class to be withdrawn was 49436 in May 1959, the final member of the class to be withdrawn was 49430 in December 1964.

The first of the class, LNWR No. 485, LMS No. 9395, BR No. 49395 has been preserved and is part of the National Collection.

Introduced	1921
Withdrawn	1964
Wheel Arrangement	0-8-0
Weight	63t
TE	28,040 lbf
Driving Wheel Dia	4ft 5 1/2in
Boiler Pressure	175 psi
Num Cylinders	2, inside
Valve Gear	Joy
Cylinder Dimensions	20 1/2 in × 24 in

LMS

Number			Base
49395	*485, 9395*	D	Locomotion - NRM Shildon

LNWR Oerlikon EMU



The LNWR electric units were ordered by the London and North Western Railway for its suburban services in London.

The trains were formed into 3-car units, with first- and third-class accommodation in open saloons. Following the 1923 grouping and absorption of the line into the LMS, similar LMS electric units, but with accommodation in compartments, were purchased to run with the Oerlikon units in 1926 and 1932.

38 three-car sets and 5 spare motor cars were produced, The Oerlikon stock trains were replaced between 1957 and 1960 by Class 501 units. The Oerlikon units were all withdrawn by 1960. The LMS electric units were withdrawn in 1963. One Oerlikon Driving Motor Brake is the only survivor and is a part of the national collection.

Introduced	1915
System	630V DC 3rd & 4th rail
Withdrawn	1960
Power	Four 280 hp (209 kW) traction motors

Number	Base	Livery
28249	National Railway Museum	MAR

LNWR Precedent

LNWR Improved Precedent Class 2-4-0



Dan Cardwell

The LNWR Improved Precedent Class or Renewed Precedent Class is a class of 2-4-0 steam locomotives originally designed for express passenger work. They later gained the nickname of Jumbos.

The locomotives were designed by F. W. Webb. A total of 158 were built in batches by Crewe Works 1887–1897 with two further additions in 1898 and 1901 respectively. They were officially "renewals" of 96 Newton Class and 62 Precedent Class locomotives. On renewal, they kept the numbers and names of their predecessors, and as a result the numbering system continued to be completely haphazard.

The London, Midland and Scottish Railway acquired 76 upon the grouping of 1923, and gave them the power classification 1P. The LMS assigned these the numbers 5004–79, in order of build date, though not all received them as withdrawals continued apace. By the end of 1933, only 5001 Snowdon survived and in April 1934 it was renumbered 25001 to clear the number 5001 for an LMS Stanier Class 5 4-6-0 but was withdrawn in October that year.

One has been preserved as part of the National Railway Collection.

Introduced	1887
Withdrawn	1934
Wheel Arrangement	2-4-0
Builder	Crewe Works
Weight	36.17t
TE	10,918 lbf

LMS

Driving Wheel Dia	6ft 9in
Wheelbase	15ft 8in
Boiler Pressure	150 psi
Num Cylinders	2, inside
Valve Gear	Allan
Cylinder Dimensions	17 in × 24 in

Number	Name			Base
790	Hardwicke	*5031*	D	Locomotion - NRM Shildon

LTS 79

LTS Class 79 4-4-2T



Dan Cardwell

The London, Tilbury and Southend Railway (LTSR) 79 Class is a class of 4-4-2T suburban tank engines. They were designed by Thomas Whitelegg, as a development of the earlier 37 Class. They could reach a top speed of 65 mph,

The four locomotives ordered by the LTSR were numbered 79–82 and were named after places in Essex, near the LTSR route. After absorption by the Midland Railway in 1912, they were renumbered 2176–2179 and their names were removed. The Midland gave them the power classification 3P, and later continued construction; an order for 10 locomotives was delivered in 1923, just after grouping.

39 were built in total, one has been preserved.

LMS

Builder	Robert Stephenson & Co., Nasmyth, Wilson & Co., & Derby Works
Introduced	1909
Weight	72.65t
TE	17,390
Driving Wheel Dia	6ft 6in
Wheel Arrangement	4-4-2T
Boiler Pressure	170 psi
Cylinder Dimensions	19 in × 26 in
Num Cylinders	2, outside
Valve Gear	Stephenson, Slide valve
Length	39ft
Withdrawn	1960
Max Speed	65mph
Wheelbase	30ft 9 1/2in

Number	Name			Base	Livery
41966	Thundersley	*2148, 2177, 80*	D	Bressingham Steam Museum	070

LYR 21 Pug

L&YR Class 21 0-4-0ST Pug



11243 at Severn Valley Railway

Dan Cardwell

The L&YR Class 21 is a class of small 0-4-0ST steam locomotive built by the Lancashire and Yorkshire Railway for shunting duties. They were nicknamed Pugs.

The class originates in the purchase of three saddle tank locomotives ordered from Vulcan Foundry in 1886. J. A. F. Aspinall then ordered more locomotives of a modified design, seventeen were ordered from Horwich Works in three batches; then Aspinall's successor Henry Hoy ordered another batch of 10; and finally, Hoy's successor George Hughes ordered 30 more in two batches.

The LMS gave the locomotives the power classification 0F. In total sixty were made between 1886 and 1910. They were built for use in sharply curved sidings for shunting duties. When the LMS was merged into British Railways on 1 January 1948, 23 'Pugs' remained in service; BR added 40,000 to their fleet numbers.

Two "Pugs" have survived into preservation, both through the Lancashire and Yorkshire Railway Trust.

Introduced	1886
Withdrawn	1964
Wheel Arrangement	0-4-0 ST
Builder	Horwich Works
Weight	21.59t
TE	11,492 lbf
Driving Wheel Dia	3ft
Wheelbase	5ft 9in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Cylinder Dimensions	13 in × 18 in

Number			Note	Base	Livery
11243	*19*	D	Lancashire & Yorkshire Railway Trust, under overhaul at the East Lancashire Railway	Ribble Steam Railway	071
51218	*11218, 68*	D	Lancashire & Yorkshire Railway Trust	Keighley & Worth Valley Railway	071

LYR 23

L&YR Class 23 0-6-0ST

The Lancashire and Yorkshire Railway (L&YR) Class 23 is a class of 0-6-0ST steam locomotive. Their main use was for shunting and for short-trip freight working. They were initially built in 1876-87 by L&Y locomotive superintendent Barton Wright as a class of 280 0-6-0 tender engines. 230 of these were rebuilt as saddle tanks at Horwich Works by Aspinall between 1891 and 1900.

The class was long-lived, with the first engine being withdrawn in 1926 by the London, Midland and Scottish Railway and the last surviving in use until 1964 with British Railways London Midland Region. 101 were in service at Nationalisation, 20 still in service in 1961.

One locomotive, L&YR 752 (LMS 11456 but sold into colliery service 1937), is preserved by the Lancashire and Yorkshire Railway Trust, having been acquired by the NCB for continued operation. A sister locomotive, L&YR Class 25 no. 957, an 0-6-0 as built in original tender configuration, was also bought for preservation in 1959.

Length	31ft 2 1/4in
Height	12ft 2 1/4in
Introduced	rebuilt 1981
Withdrawn	1964
Wheel Arrangement	0-6-0 ST
Weight	44.6t
TE	17,545 lbf
Driving Wheel Dia	4ft 6in
Boiler Pressure	140 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 26 in

Number			Note	Base	Livery
51456	*752, 11456*	A	Lancashire & Yorkshire Railway Trust	East Lancashire Railway	BLK

LYR 25

L&YR Class 25 0-6-0

The Lancashire and Yorkshire Railway Class 25 is a class of 0-6-0 steam locomotive. They were introduced to the Lancashire and Yorkshire Railway in 1876 by new locomotive superintendent William Barton Wright and 280 were built in total. Of these, 230 were later converted to saddle tanks by John Aspinall, to become L&YR Class 23.

The locomotives passed briefly to the London and North Western Railway in 1922 and then to the London, Midland and Scottish Railway in 1923. The LMS gave them the power classification 2F. In 1948, the 23 surviving locomotives passed to British Railways.

The last engine, BR 52044 (L&YR 957, LMS 12044) was bought for preservation in 1959 and has starred in the film The Railway Children as the Green Dragon. It was out of service from 1975 but was returned to steam in 2001 in its BR guise as 52044 before being painted in its L&YR guise as 957 a few years later.

Introduced	1876

LMS

Withdrawn	1959
Wheel Arrangement	0-6-0
Weight	39.7t
TE	17,545 lbf
Driving Wheel Dia	4ft 6in
Boiler Pressure	140 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 26 in

Number			Note	Base	Livery
52044	*12044, 957*	O	Bowers 957 Trust	Keighley & Worth Valley Railway	071

LYR 27

L&YR Class 27 0-6-0



MRG

The L&YR Class 27 is a class of 0-6-0 steam locomotive designed for freight work on the Lancashire and Yorkshire Railway. They were designed by John Aspinall and 484 were built between 1889 - 1918 at Horwich Works. It was the standard goods engine used by the Lancashire & Yorkshire Railway. By the time Aspinall became general manager of the L&YR on 1 July 1899 more than 400 of the simple but powerful engines had been built. More were built under his successors, Henry Hoy and George Hughes, albeit with some modifications. By 1918 there were the 484 locomotives in the class.

It is a tribute to the soundness, usefulness and simple practicality of Aspinall's design that 300 of the class passed into the ownership of the London, Midland and Scottish Railway and around 50 were operating in British Railways service in summer 1960. British Railways had taken ownership of 235 of the class in 1948. 32 locomotives were loaned to the Railway Operation Division during World War I, all of them were eventually returned once the war had ended.

Of the 484 built only 1 has survived into preservation.

Length	48ft 6in
Introduced	1889
Withdrawn	1962
Wheel Arrangement	0-6-0
Builder	L&YR, Horwich Works
Weight	43.2t
TE	21,130 lbf
Driving Wheel Dia	5ft 1in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Valve Gear	Joy
Cylinder Dimensions	18in x 26in

Number			Base
12322	*52322, 1300*	A	East Lancashire Railway

LYR 5

L&YR Class 5 2-4-2T



Dan Cardwell

The Lancashire and Yorkshire Railway Class 5 were 2-4-2T steam locomotives designed by Chief Mechanical Engineer (CME) John Aspinall and introduced from 1889 for local passenger work.

Later batches included progressive modifications such as extended coal bunkers and belpaire fireboxes. The final batch built from 1911 to 1914 under George Hughes incorporating superheated boilers and belpaire firebox gave increased tractive effort, others were also rebuilt to this standard. When Hughes introduced his classification system in 1919 the more powerful superheated locomotives were designated Class 6.

The final examples were withdrawn in 1961. A single preserved example exists. The lead locomotive No. 1008 of 1889 which was withdrawn in 1954 is now preserved as a part of the national collection. This locomotive is the small-bunkered version with the round topped boiler.

Diagram	Lots 1, 4, 11, 12, 16, 22, 27, 28, 30, 34, 35, 36, 38, 41
Length	39ft 2 1/2in
Introduced	1889
Withdrawn	1961
Wheel Arrangement	2-4-2T
Builder	Horwich Works
Weight	56.85t
TE	16,848 lbf
Driving Wheel Dia	5ft 8in
Boiler Pressure	160 psi

LMS

Num Cylinders	2, inside
Valve Gear	Joy
Cylinder Dimensions	18in x 24in

Number			Base	Livery
1008	*10621, 50621*	D	Bury Transport Museum	071

Mersey I

Mersey Railway Class I 0-6-4

For the opening of the line, eight powerful 0-6-4 tank locomotives were obtained from Beyer, Peacock and Company, fitted with condensing apparatus for working in the tunnel. Designated as Class I, a ninth followed within six months.

The 0-6-4Ts were built with steam and vacuum brakes and steam reversing gear and weighed 68 t. As electrification of the Mersey Railway progressed, the old rolling stock was advertised for sale. The first to be sold was No. 5 Cecil Raikes, which was bought by Shipley Collieries for £750. The last four locomotives (Nos. 1, 7, 9 and 4) were sold to J & A Brown for use on the Richmond Vale railway line in New South Wales, Australia. Following storage at Derby Locomotive Works for a number of years, Cecil Raikes was presented to National Museums Liverpool by the British Railways Board in 1965.

Two of the Class I locomotive have been preserved.

Length	11.6m
Width	2.65m
Height	4.21m
Introduced	1885
Withdrawn	1954
Wheel Arrangement	0-6-4 T
Builder	Beyer Peacock
Weight	68t
Driving Wheel Dia	4ft 7in
Boiler Pressure	150 psi
Num Cylinders	2, inside
Cylinder Dimensions	21in x 26in

Number	Name			Base	Livery
1	The Major	*2601*	D	Rail Transport Museum, Australia	
5	Cecil Raikes	*2605*	S	Museum of Liverpool	GRE

Misc. Diesel Shunters

LMS Diesel Shunters



Chris Harley

The LMS pioneered the use of diesel shunting locomotives in Great Britain.

3 have been preserved:

LMS diesel shunter 7050 is an experimental 0-4-0 diesel-mechanical shunting locomotive, introduced by the LMS in 1934 and which remained in service with that railway for six years and was used for dock shunting at Salford before being loaned to the Air Ministry in 1940. It was withdrawn from LMS stock in March 1943 and sold to the War Department which numbered it 224. Subsequent renumbering by the WD, and later the Army, saw it carry numbers 70224, 846 and 240. At some point it was rebuilt with a Gardner engine and was used at the Royal Navy base at Botley, Hampshire. In 1979 it was preserved by the Museum of Army Transport in Beverley, and later the National Railway Museum.

LMS diesel shunter 7051 was built by the Hunslet Engine Company to demonstrate its wares. After public exhibition in February 1932, it was used for trials at a colliery, before being tested by the LMS and was subsequently purchased by the LMS in May 1933. It was loaned to the War Department from August 1940, which numbered it 27. During 1941–1944 it was returned to the LMS, but in August 1944 it returned to the WD, now numbered 70027. After the end of World War II, it was returned to the LMS but was withdrawn in December 1945 and resold back to Hunslet. Hunslet used the locomotive as a works shunter, but it was also available for hire and spent time at oil refineries in Essex and with British Railways. In September 1960 the locomotive was preserved by the Middleton Railway.

LMS diesel shunter 7069 (British Rail Class D3/6) was based on the English Electric 6K of 300 horsepower (220 kW) diesel engine, with a long bonnet, 0-6-0-wheel arrangement, EE

6K prime mover and two axle-hung traction motors. It was built by Hawthorne Leslie to English Electric design. Ten further locomotives of the same design, with minor alterations and uprated to 350 horsepower, were built in 1935 and taken into LMS stock in 1936. These were numbered 7069-7078 by the LMS. Three of these later became British Railways numbers 12000–12002. They spent their working lives allocated to Crewe South Locomotive Depot. The remainder of the class were sold to the British War Department in 1940 and were shipped to France during World War II. Of these, the first production locomotive, No. 7069, survived the war and was used in industrial service in France. It was later repatriated for preservation by the Berkeley Vale Railway.

Length	Varies
Width	Varies
Height	Varies
Builder	Various

Number			Note	Base	Livery
7050	*224, 70224, 846, 240, 2047, 847*	P	0-4-0 DM	National Railway Museum	
7051	*7401, 1697*	P	0-6-0 DM	Middleton Railway	BLK
7069	*18, 3841*	P	D3/6 0-6-0 DE	Churchill 8F Locomotive Company, Malvern	

MR 1000 Compound

Midland 1000 Class 4-4-0 Compound



Midland Railway 1000 Class is a class of 4-4-0 steam locomotive designed for passenger work. They were known to reach speeds of up to 85 mph. They were developed from a

series of five locomotives (2631–2635) introduced in 1902 by Samuel Waite Johnson, which had a 3-cylinder compound arrangement on the Smith system, with one high-pressure cylinder inside the frames and two low-pressure cylinders outside and used Smith's starting arrangement. On the first two locomotives independent control of high-pressure and low-pressure valve gears was available.

From 1905 onwards, Johnson's successor Richard Deeley built an enlarged and simplified version, eliminating all the Smith refinements and fitting his own starting arrangement, making the engines simpler to drive. In the 1907 renumbering scheme the five Smith/Johnson locomotives became 1000–1004 and the Deeley compounds 1005–1034. Ten more of these were added in 1908–1909. The original Johnson locomotives were all subsequently renewed as Deeley compounds, including the now preserved 1000 which was rebuilt and outshopped with a superheater in 1914. Numbered 1000–1044 by both the Midland and LMS companies, British Railways renumbered the Midland series of compounds 41000–41044 after nationalisation in 1948.

After the grouping, the LMS continued to build slightly modified MR Compounds as the LMS Compound 4-4-0 - none of these survived. However, No. 1000 was set aside for preservation after withdrawal in 1951 and restored in 1959 close to its 1914 condition and is a part of the National Collection.

Builder	Midland, Derby Works
Introduced	1902
Weight	61.7t + 45.9t
TE	21,840 lbf
Driving Wheel Dia	7ft
Wheel Arrangement	4-4-0
Boiler Pressure	220 psi
Num Cylinders	3
Valve Gear	Stephenson
Withdrawn	1953
Max Speed	85mph
Cylinder Dimensions	Outside: 21 in × 26 in, inside: 19 in × 26 in

Number			Base	Livery
41000	*1000, 2631*	P	Barrow Hill	CLA

MR 115

MR Class 115 4-2-2



Dan Cardwell

The Midland Railway 115 Class was the third of four classes of 4-2-2 steam locomotive, nicknamed "Spinners", designed by Samuel Waite Johnson. A total of 15 of the class were built between 1896 and 1899. They were capable of reaching speeds of up to 90 miles per hour.

It was quite common for engines of this class to pull a typical Midland express, which suited the Class 115 perfectly. Given a dry rail they could maintain a tight schedule. Speeds up to 90 mph were not uncommon, and the sight of their large, spinning driving wheels with no visible connecting rods, like a spinning wheel, earned them the nickname "Spinners". Thanks to the Midland's practice of building low powered locomotives and relying on double-heading to cope with heavier trains, many enjoyed working lives of up to 30 years.

15 were built, and one engine, No. 673, is preserved in the National Collection.

Introduced	1896
Withdrawn	1928
Wheel Arrangement	4-2-2
Builder	Derby Works
Weight	18.08t
TE	15,279 lbf
Max Speed	90mph
Driving Wheel Dia	7ft 9 1/2in
Boiler Pressure	170 psi
Num Cylinders	2, inside

LMS

Cylinder Dimensions	19 1/2 in × 26 in

Number			Base	Livery
673	*118*	D	National Railway Museum	CLA

MR 1377

Midland 1377 Class 0-6-0T



Dan Cardwell

The Midland Railway 1377 Class was a class of 185 0-6-0T tank locomotives. They were introduced in 1878 by Samuel W. Johnson and were almost identical to the 1102 class of 1874; the latter having fully enclosed cabs, while the 1377 class were built without a rear to the cab and only a short cab roof, hence their nickname "half-cabs". They were given the power classification 1F.

All 185 passed to the London, Midland and Scottish Railway (LMS) at the grouping in 1923. Withdrawals started in 1927 and by 1948 when the railways were nationalised, 72 locomotives passed into British Railways ownership in 1948 and they allocated numbers 40000 higher than their LMS numbers, although 14 were withdrawn before the new numbers were applied. Withdrawals continued and by 1961 only 11 remained; the last five were withdrawn in September 1965. The class had only lasted as long as it had because the Midland Railway had signed a contract in 1866 to provide shunting engines to Staveley Ironworks for 100 years; the 1Fs, as they were by then, were the only locomotives suitable to perform this duty.

One of the Staveley engines survived into preservation.

Builder	Midland Railway

LMS

Introduced	1874
Weight	45.45t
TE	16230lbf
Driving Wheel Dia	4ft6½
Wheel Arrangement	0-6-0 T
Boiler Pressure	200psi
Cylinder Dimensions	16½*24 in
Num Cylinders	2, inside
Valve Gear	Walschaerts
Withdrawn	1965

Number			Note	Base	Livery
41708	*1708, 1418*	D	Barrow Hill Engine Shed Society	Barrow Hill	BLK

MR 156

MR Class 156 2-4-0



Dan Cardwell

The Midland Railway 156 Class was a class of 2-4-0 tender engines built at Derby Works between 1866 and 1874. In total 29 of the class were built under the Midland Railway. They were rebuilt sometime between 1873 and 1903.

These engines used to work on express passenger trains to King's Cross, which was then the Midland Railway's London Terminus. 21 survived to become part of the LMS fleet of engines in 1923. By then they were reduced to the humblest of roles. In September 1930, the LMS recognised the significance of the class and number 156 itself was ear-marked for

preservation. However, William Stanier chose not to preserve it and the engine was scrapped two years later.

One engine, 158A survives. She was withdrawn from service in July 1947 by the LMS to be restored to her former Midland identity and old number 158A as a static exhibit in Birmingham during the centenary celebrations at the New Street station in 1954.

Introduced	1866
Withdrawn	1947
Wheel Arrangement	2-4-0
Builder	Derby Works
Weight	41.9t
TE	12,340 lbf
Driving Wheel Dia	6ft 2 1/2in
Boiler Pressure	140 psi
Num Cylinders	2, inside

Number			Base	Livery
158A	*20002, 158, 2*	D	Barrow Hill	067

MR 3835

MR Class 3835 0-6-0



Dan Cardwell

The Midland Railway 3835 Class is a class of 0-6-0 steam locomotive designed for freight work. The first two were introduced in 1911 by Henry Fowler. After the grouping in 1923 they continued to be built up to 1941 by the LMS as the LMS Fowler Class 4F.

A total of 197 engines were built. 192 of them were sequentially numbered 3835–4026 for the Midland Railway. After nationalisation in 1948 British Railways added 40000 to their numbers so they became 43835–44026. Five engines were constructed by Armstrong Whitworth for the Somerset and Dorset Joint Railway in 1922, numbered 57–61. They were absorbed into LMS stock in 1930, becoming 4557–4561.

One Midland-built 4F, (4)3924 is preserved, the first locomotive to leave Woodham Brothers scrapyard in Barry, South Wales in September 1968. Three LMS-built 4Fs have also been preserved.

Introduced	1911
Withdrawn	1965
Wheel Arrangement	0-6-0
Builder	Derby Works & Armstrong Whitworth
Weight	49.5t
TE	24,555 lbf
Driving Wheel Dia	5ft 3in
Boiler Pressure	175 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	20 in × 26 in

Number			Base	Livery
43924	*3924*	A	Keighley & Worth Valley Railway	BLK

NLR 75

NLR Class 75 0-6-0T



MRG

The North London Railway Class 75 is a class of 0-6-0T steam locomotive. Thirty were built to a design by J. C. Park from 1879 to 1905. They were designed for shunting the NLR's docks and were very compact but powerful engines. This made them suitable later for transfer onto the Cromford and High Peak Railway in Derbyshire, and some were sent north. They worked there until they were displaced by J94 "Austerity" 0-6-0STs.

All passed to the London, Midland and Scottish Railway on grouping, and were renumbered 7503–7532. In 1934 the surviving engines were renumbered by adding 20,000 to their numbers. In 1948 the 14 surviving engines passed to British Railways on nationalisation and were renumbered 58850–58863. One, (BR 58850 ex LMS 27505, LMS 7505, LNWR 2650, NLR 116) has been preserved.

Introduced	1879
Withdrawn	1960
Wheel Arrangement	0-6-0 T
Builder	Bow Railway works for the NLR
Weight	46.23t
TE	18,140 lbf
Driving Wheel Dia	4ft 4in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	17 in × 24 in

LMS

Number			Base
58850	*76, 116, 2650, 7505, 27505*	S	Bluebell Railway

NSR Battery

NSR Battery Electric



Dan Cardwell

North Staffordshire Railway (NSR) No. 1 is one of only two battery electric locomotives to be employed by a main line company. The other was built by Midland Railway in Derby in 1913 for shunting at Poplar docks.

No. 1 was designed to be able to contend with the narrow internal railway of Thomas Bolton & Sons Ltd. Copper Works; the locomotive worked at Bolton's Oakamoor Works for all of its working life, from 1917 to 1963.

When No. 1 started work in 1917 it replaced three shunting horses. On one charge, No. 1 could run for up to six hours and haul a load of more than four times its weight at 11mph, a fair speed for a shunter.

The locomotive was withdrawn from service in 1963 and entered the National Collection in 1975.

Introduced	1917
Withdrawn	1963
Wheel Arrangement	Bo
Length	19ft 8in
Width	8ft 4 1/2in
Max Speed	11mph

Number			Base
1	*BEL 2*	D	Locomotion - NRM Shildon

NSR L

NSR New Class L 0-6-2T



2271 at Foxfield

Dan Cardwell

The North Staffordshire Railway (NSR) New L Class was a class of 0-6-2 steam locomotive designed by John H. Adams, third son of William Adams. They were designed as a development as the previous L Class, adding a boiler common to the M Class and differed from the L Class with, amongst other things higher bunker sides and new cab roofs, and the abandonment of the cast safety valve cover. 28 were built between 1908 and 1923, with the final four constructed under the auspices of the newly formed LMS.

All were withdrawn by the end of 1937; one was sold to the Longmoor Military Railway whilst four more were sold to Manchester Collieries Ltd. The rest were scrapped. NSR 2 was one of the locomotives sold to the Manchester Collieries Ltd and worked at Walkden where it received the name Princess. It was eventually rebuilt with a new saturated boiler and new tanks, bunker and cylinders in 1946.

It was subsequently saved for preservation by being placed in the Staffordshire County Council Museum at Shugborough Hall. In 1984 it was moved to Chatterley Whitfield Mining Museum, and at some point, it moved into the National collection. In April 2016 the National Railway Museum gifted the locomotive to the Foxfield Railway.

Introduced	1903
Withdrawn	1937

LMS

Wheel Arrangement	0-6-2T
Builder	NSR Stoke Works
Driving Wheel Dia	5ft
Boiler Pressure	175 psi
Num Cylinders	2, inside
Cylinder Dimensions	18 1/2 in × 26 in

Number			Base	Livery
2271	*2*	D	Foxfield Railway	069

Patriot

Patriot Class 4-6-0



The Patriot Class was a class of 52 express passenger steam locomotives built for the London Midland and Scottish Railway. The first locomotive of the class was built in 1930 and the last in 1934. The class was based on the chassis of the Royal Scot combined with the boiler from Large Claughtons earning them the nickname Baby Scots. A total of 18 were rebuilt to create the LMS Rebuilt Patriot Class between 1946 and 1948; thereafter those not subjected to rebuilding were often referred to as the Un rebuilt Patriot Class. These remaining 34 Un rebuilt engines were withdrawn between 1960 and 1962.

All of the original un-rebuilt LMS Patriot Class locomotives were withdrawn by November 1962 and the whole class was withdrawn by December 1965 with none of the engines (un-rebuilt or rebuilt) surviving into preservation; however, a replica of no.5551 is under construction. The LMS-Patriot Project, a registered charity, is building a replica which will carry the number of the last build: LMS number 5551.

No.5551 The Unknown Warrior is a "rebuilt" or replica LMS Patriot Class steam locomotive which is under construction. The locomotive is a "rebuilt" of the final 'Patriot' class

locomotive to be built, No.5551. The original locomotive was built in May 1934 and withdrawn in June 1962 (it was scrapped that October). Unlike the original engine, which never received a name, the replica will be named "The Unknown Warrior"; the name was chosen by public poll.

Length	62ft 8 3/4in
Introduced	1930
Withdrawn	1965
Wheel Arrangement	4-6-0
Builder	LMS Derby & Crewe
Weight	82.05t
TE	26,520 lbf
Driving Wheel Dia	6ft 9in
Boiler Pressure	200 psi
Num Cylinders	3
Valve Gear	Walschaerts
Cylinder Dimensions	18 in × 26 in

Number	Name			Note	Base	Livery
45551	The Unknown Warrior	*5551*	C	LMS-Patriot Project	Tyseley Locomotive Works	CLA

Princess Royal

Princess Royal Class 4-6-2



Dan Cardwell

The London, Midland and Scottish Railway (LMS) Princess Royal Class is a class of express passenger 4-6-2 steam locomotive designed by William Stanier.

The Princesses are related to the GWR King Class, the general outline essentially being a King with a larger firebox supported by additional trailing wheels. This origin is explained by the designer William Stanier coming from the GWR to the LMS. When originally built, they were used to haul the famous Royal Scot train between London Euston and Glasgow Central.

The class was withdrawn in the early 1960s in line with British Railways' modernisation plan. Twelve examples were built at Crewe Works, between 1933 and 1935, for use on the West Coast Main Line. Two are preserved.

Builder	LMS Crewe Works
Introduced	1933
Weight	106.18t
TE	40,286 lbf
Driving Wheel Dia	6ft 6in
Wheel Arrangement	4-6-2
Boiler Pressure	250 psi
Cylinder Dimensions	16 1/4 in × 28 in
Num Cylinders	4
Valve Gear	Walschaerts
Length	74ft 4 1/4in
Width	9ft

LMS

Height	13ft 3in
Withdrawn	1962
Wheelbase	63ft 10in

Number	Name			Note	Base	Livery
46201	Princess Elizabeth	*98801, 6201*	A	Princess Elizabeth Locomotive Society	West Coast Railway Co. Carnforth	CLA
46203	Princess Margaret Rose	*98803, 6203*	O	The Princess Royal Class Locomotive Trust	Midland Railway - Butterley	CLA

Royal Scot

Royal Scot Class 4-6-0



MRG

The LMS Royal Scot Class is a class of 4-6-0 express passenger locomotive introduced in 1927. 70 members of this class were rebuilt by the LMS and its successor BR from LMS Royal Scot Class engines by the replacement of their life expired parallel boilers with a type 2A boiler over the period 1943–1955.

The rebuilds were quite substantial, requiring new boiler, frames and cylinders, but in most cases the original frame stretchers, wheels, cab and fittings were retained. The usual procedure was that as each locomotive arrived for rebuilding, it was stripped, and the identity transferred to a fresh frameset prepared using the parts recovered from the

locomotive that had previously been rebuilt. The new frames were slightly shorter than the originals. Thus, most rebuilt examples retained their own cab, wheels etc., but most of the frame stretchers, and other integral parts of the frame were from the previously rebuilt loco.

All were withdrawn between 1962 and 1965 in accordance with the 1955 Modernisation Plan. No original Royal Scots in 'as built' condition survive, as all were rebuilt by 1955.Of the 70 engines to be rebuilt only 2 members of the class have survived into preservation.

Builder	North British & LMS Derby
Introduced	1927
Weight	86.26t
TE	33,150 lbf
Driving Wheel Dia	6ft 9in
Wheel Arrangement	4-6-0
Boiler Pressure	250 psi
Cylinder Dimensions	18 in × 26 in
Num Cylinders	3
Valve Gear	Walschaerts
Length	63ft 0 1/2in
Withdrawn	1966

Number	Name			Note	Base	Livery
46100	Royal Scot	*6100*	D	Royal Scot Locomotive and General Trust	One:One Collection	GRN
46115	Scots Guardsman	*98715, 6115*	A		West Coast Railway Co. Carnforth	GRN

LNER

A1

Peppercorn Class A1 4-6-2



The LNER Peppercorn Class A1 is a type of express passenger steam locomotive. Forty-nine original Peppercorn Class A1s were built to the design of Arthur Peppercorn (who was the last CME of the LNER) during the early British Railways era.

By summer of 1966, all 49 class members had gone for scrap. The last to be withdrawn from stock was No. 60145 Saint Mungo, after a working life of just 17 years. 60145 Saint Mungo was planned to be preserved by Geoff Drury; however, this ultimately was unsuccessful and none of the original locomotives were preserved

In 2008, a brand new 50th Peppercorn A1 locomotive, 60163 Tornado, was completed. Tornado is the first newly built British mainline steam locomotive following the completion of No. 92220 Evening Star in 1960, and the only Peppercorn Class A1 in existence after the original batch was scrapped. In 2017, Tornado became the first steam locomotive to officially reach 100 mph on British tracks for over 50 years.

Length	72ft 11 3/4in
Width	9ft 2 7/8in
Height	13ft
Introduced	1948 (originals) 2008 new build

Withdrawn	1966 (originals)
Wheel Arrangement	4-6-2
Builder	A1 Locomotive Steam Trust (Originals at Darlington & Doncaster works)
Weight	106.9t
TE	37,400 lbf
Max Speed	100mph
Driving Wheel Dia	6ft 8in
Boiler Pressure	250 psi
Num Cylinders	3
Valve Gear	Walschaerts
Cylinder Dimensions	19 in × 26 in

Number	Name			Note	Base	Livery
60163	Tornado	*98863*	A	The A1 Steam Locomotive Trust	Hopetown Darlington	GRN

A2

Peppercorn Class A2 4-6-2



60532 at the Greatest Gathering

Dan Cardwell

The LNER Peppercorn Class A2 is a class of steam locomotive designed for express passenger work by Arthur Peppercorn, the chief designer of the LNER after Edward Thompson.

LNER

The first of the Peppercorn A2s was outshopped from Doncaster in December 1947 on the eve of nationalisation, and named after the designer of the class, Arthur Peppercorn. The modernity of the design was immediately apparent. The first two of the class were turned out in LNER apple green livery and this colour was also applied to the next 13 engines delivered between January and August 1948. Repainting in British Railways Brunswick green began the following year. Another 20 members of the class were also planned but were cancelled on 4 May 1948.

All save the first of the 15 built were constructed under British Railways after nationalisation in 1948. Withdrawal occurred between 1962 and 1966. One Peppercorn A2, 60532 Blue Peter, has survived.

Introduced	1947
Withdrawn	1966
Wheel Arrangement	4-6-2
Builder	Doncaster Works
Weight	102.6t
TE	40,430 lbf
Driving Wheel Dia	6ft 2in
Wheelbase	60ft 6in
Boiler Pressure	250 psi
Num Cylinders	3
Valve Gear	Walschaerts
Cylinder Dimensions	19×26 in

Number	Name			Note	Base	Livery
60532	Blue Peter	*98832*	T	Royal Scot Locomotive and General Trust Ltd	Severn Valley Railway	BLU

A3

A3 Class 4-6-2



The LNER Gresley A3 class locomotives represented two distinct stages in the history of the British 4-6-2 "Pacific" steam locomotives designed by Nigel Gresley. As A1's they were designed for main line passenger services and later express passenger services, initially on the GNR, a constituent company of the LNER after the amalgamation of 1923, for which they became a standard design.

The change in class designation to A3 reflected the fitting to the same chassis of a higher-pressure boiler with a greater superheating surface and a small reduction in cylinder diameter, leading to an increase in locomotive weight. Eventually all of the A1 locomotives were rebuilt, most to A3 specifications. One was named after the company's most famous long-distance passenger train, the Flying Scotsman. 78 were built, but Flying Scotsman is the sole member of the class to be preserved.

Length	70ft
Height	13ft
Introduced	1922
Withdrawn	1966
Wheel Arrangement	4-6-2
Builder	Doncaster Works & North British Locomotive Company
Weight	97.79t
TE	32,910 lbf
Driving Wheel Dia	6ft 8in
Wheelbase	60ft 10 3/5in
Boiler Pressure	220 psi
Num Cylinders	3

Valve Gear	Walschaerts (outside) Gresley conjugated (inside)
Cylinder Dimensions	20 in × 26 in

Number	Name			Base	Livery
60103	Flying Scotsman	*98872, 1742, 4472, 503, 103, E103*	A	Locomotion - NRM Shildon	GRN

A4

A4 Class 4-6-2 'Streaks'



The Class A4 is a class of streamlined 4-6-2 steam locomotive designed by Nigel Gresley for the LNER in 1935. Their streamlined design gave them high-speed capability as well as making them instantly recognisable, and one of the class 4468 Mallard, holds the world record as the fastest steam locomotive.

Thirty-five of the class were built to haul express passenger trains on the East Coast Main Line route from London Kings Cross via York to Newcastle, and later via Newcastle to Edinburgh, Scotland. They remained in service on the East Coast Main Line until the early 1960s when they were replaced by Deltic diesel locomotives; they themselves proving to be worthy successors to the A4s.

Several A4s saw out their remaining days until 1966 in Scotland, particularly on the Aberdeen to Glasgow express trains, for which they were used to improve the timing from 3.5 to 3 hours. Six have been preserved.

Length	71ft 3/8in
Width	9ft
Height	13ft 1in

LNER

Introduced	1935
Withdrawn	1966
Wheel Arrangement	4-6-2
Builder	LNER Doncaster Works
Weight	104.6t
TE	35,455 lbf
Driving Wheel Dia	6ft 8in
Boiler Pressure	250 psi
Num Cylinders	3
Cylinder Dimensions	18.5 in × 26 in

Number	Name			Note	Base	Livery
4464	Bittern	*98819, 60019*	S		Locomotive Services, Crewe	054
4468	Mallard	*98868, 60022*	D		National Railway Museum	054
60007	Sir Nigel Gresley	*98898, 4498*	A	The Sir Nigel Gresley Locomotive Trust Ltd	Locomotive Services, Crewe	BLU
60008	Dwight D. Eisenhower	*4496*	E		National Rly Museum, Green Bay, Wisconsin USA	GRN
60009	Union of South Africa	*98809, 4488*	D		Cameron Railway Trust	GRN
60010	Dominion of Canada	*4489*	E		Canadian Railroad Historical Museum	GRN

B1

Thompson B1 Class 4-6-0 'Bongo'



The LNER Thompson Class B1 is a class of steam locomotive designed by Edward Thompson for medium mixed traffic work. It was the LNER's equivalent to the highly successful GWR Hall Class and the LMS Stanier Black Five, two-cylinder mixed traffic 4-6-0s. However, it had the additional requirement of having to be cheap because, due to wartime and post-war economies, the LNER, never the richest railway company, had to make savings.

The prototype for the new B1 class 4-6-0 was built at Darlington and entered service on 12 December 1942. It was the first 2-cylinder main-line locomotive constructed for the LNER since the grouping, such had been Sir Nigel Gresley's faith in the 3-cylinder layout. With cost saving a wartime priority the LNER's draughtsmen went to great lengths to re-use existing patterns, jigs and tools to economise on materials and labour. Extensive use was made of welding instead of steel castings. The boiler was derived from the Diagram 100A type fitted to the LNER Class B17 Sandringham 4-6-0s but with a larger grate area and an increase in boiler pressure.

410 locomotives were built, but only two have been preserved, both of which were built by North British Locomotive Company. No. 61264 has the distinction of being the only LNER locomotive to be sent and later rescued from Barry Scrapyard.

Builder	LNER Darlington Works, LNER Gorton Works, North British Locomotive Co. & Vulcan Foundry
Introduced	1942
Withdrawn	1967
Wheel Arrangement	4-6-0
Weight	72.3t

TE	26,878 lbf
Driving Wheel Dia	6ft 2in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Valve Gear	Walschaerts
Cylinder Dimensions	20 in × 26 in

Number	Name			Note	Base	Livery
61264		*98564, 1264*	O	Thompson B1 Locomotive Limited	Great Central Railway (Nottingham) Ltd	BLK
61306	Mayflower	*98506, 1306*	A		Locomotive Services, Crewe	LNE

B12 (GER S69)

GER Class S69/LNER B12 4-6-0



Dan Cardwell

The GER Class S69, also known as 1500 Class (and later classified B12 by the LNER) is a class of 4-6-0 steam locomotive designed to haul express passenger trains from London Liverpool Street station along the Great Eastern Main Line. Originally, they were designed by S. D. Holden, but were much rebuilt, resulting in several subclasses.

Seventy-one S69 locomotives were built between 1911 and 1921 and numbered 1500–1570. Fifty-one of these were built at the GER's Stratford Works and the remaining 20 by William

Beardmore and Company. A further 10 locomotives were built by Beyer, Peacock and Company for the LNER in 1928.

At the time of their introduction, the "Claud Hamilton" 4-4-0s were becoming outclassed on the heaviest express. Although an enlarged 4-4-0 design was mooted, it was realised that any such design would have too high an axle load for the tracks of the Great Eastern Railway, which had a relatively low restriction. Another design constraint was the short turntables used at the time. This meant that a 4-6-0 design was decided upon, although the design was relatively short compared to similar designs introduced at the same time.

After the grouping the LNER ordered a further batch of 10 locomotives to ease a power shortage caused by the stalled development on a new class of 4-6-0 locomotives, and the cancellation of the planned suburban 2-6-4T tank locomotive due to the adverse press publicity caused by the Sevenoaks derailment of 1927. 81 were produced in total. Withdrawals started in 1945.

At nationalisation in 1948, seventy-two locomotives passed to British Railways. Withdrawals continued, and all were gone by the end of 1961. One engine, LNER No. 8572, has been preserved.

Length	57ft 7in
Introduced	1911
Withdrawn	1961
Wheel Arrangement	4-6-0
Builder	Stratford Works, Wm. Beardmore & Co., & Beyer Peacock & Co
Weight	70.4t
TE	21,969 lbf
Driving Wheel Dia	6ft 6in
Wheelbase	48ft 3in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	20 in × 28 in

Number			Base	Livery
61572	*8572, 1572, 7846*	O	Riley & Son, Irwell	LNE

B17

B17 Class 4-6-0 'Footballer'

The LNER Class B17, also known as "Sandringham" or "Footballer" class was a class of 4-6-0 steam locomotive designed by Nigel Gresley for hauling passenger services on the Great

Eastern Main Line. Among enthusiasts, the class was referred to as "footballers" as several members were named after football clubs.

In total 73 were built. Ten B17s were rebuilt by Edward Thompson as 2-cylinder locomotives with a LNER 100A boiler, between 1945 and 1949, becoming the Class B2. No more were rebuilt because of the success of the Thompson's B1 class.

None of the class have survived into preservation but a few of the football clubs were presented with the nameplates after the locomotives were cut up. An operational locomotive being developed by the B17 Steam Locomotive Trust will become the newest member of the class, 61673 Spirit of Sandringham.

The North British Locomotive Preservation Group were engaged in a project to build a non-operational LNER Class B17 4-6-0 replica, named after a football club, 61662 Manchester United. By May 2019, many parts of the locomotive were being fixed together for display at the groups Mizens Railway base. In time, they intended to develop the replica into an operational locomotive, but in November 2020 they announced that the project was being terminated, with re-usable components, including the original tender, being donated to the B17 Steam Locomotive Trust.

Length	62ft 2in
Width	8ft 11in
Height	12ft 11in
Introduced	1928
Withdrawn	1960
Wheel Arrangement	4-6-0
Builder	North British Locomotive Co., Darlington Works & R. Stephenson & Co.
Weight	81.79t
TE	28,553 lbf
Max Speed	75mph
Driving Wheel Dia	6ft 8in
Boiler Pressure	225 psi
Num Cylinders	3
Valve Gear	Outside: Walschaerts, Inside: Gresley conjugated
Cylinder Dimensions	17 1/2 in × 26 in

Number	Name		Note	Base
61673	Spirit of Sandringham	C	New Build	Diamond Engineering, Sheffield

C1

GNR C1 Class 4-4-2 'Large Atlantic'



Dan Cardwell

The Great Northern Railway (GNR) Class C1 is a type of 4-4-2 steam locomotive. Much like their small boiler cousins, they were capable of reaching speeds of up to 90 mph. They were also known as Large Atlantics.

The C1 Class, as it was known under both GNR & LNER classifications, was designed by Henry Ivatt as an enlarged version of what became the LNER C2 Class. The principle of the design was to produce a powerful, free-steaming engine to haul the fastest and heaviest express trains on the Great Northern. They could thus be seen as the start of the East Coast 'Big Engine' policy. None were ever named.

94 were built, one, ex GNR 251, later LNER 2800, survives in preservation.

Introduced	1902
Withdrawn	1950
Wheel Arrangement	4-4-2
Builder	Doncaster Works
Weight	70.7t
TE	Varied amongst the class
Max Speed	90mph
Driving Wheel Dia	6ft 8in
Wheelbase	48ft 5 1/2in
Boiler Pressure	170 psi
Num Cylinders	2, outside

Valve Gear	Stephenson
Cylinder Dimensions	Varied amongst the class

Number			Base	Livery
3251	*98451, 2800, 251, 251N*	D	Danum Gallery, Doncaster	GNG

C2

GNR C1 Class/LNER C2 4-4-2 'Small Atlantic'



The GNR Small Boiler Class C1 is a class of steam locomotive, the first 4-4-2 or Atlantic type in Great Britain. They were designed by Henry Ivatt in 1897. In total 22 were built between 1898 and 1903 at Doncaster Works. They could reach speeds of up to 90 mph. They were also known as Klondykes.

After the 1923 grouping this class became LNER Class C2, whereas the large boiler engines were LNER Class C1. GNR's own Class C2 Atlantic tank locomotives became LNER Class C12.

22 were produced, but only one has survived into preservation and it was the very first. No. 990 Henry Oakley is preserved as part of the National Collection.

Introduced	1898
Withdrawn	1946
Wheel Arrangement	4-4-2
Builder	Doncaster Works
Weight	60.96t
TE	14,728 lbf
Max Speed	90mph

Driving Wheel Dia	6ft 8in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 24 in

Number	Name			Base	Livery
990	Henry Oakley	*3990*	D	National Railway Museum	GNG

D11 (GCR 11F)

GCR Class 11F/LNER D11 4-4-0 'Improved Director'



Dan Cardwell

The Great Central Railway Class 11F or Improved Director Class is a class of 4-4-0 steam locomotive designed by John G. Robinson for passenger work. The LNER classified them as Class D11 from 1923. They were based on the earlier GCR Class 11E "Director" class (LNER D10). There were two subclasses: D11/1 were the original GCR engines and D11/2 were those built in 1924 by the LNER to a reduced loading gauge with smaller boiler mountings for hauling passenger trains in Scotland.

The 11F Class was initially used on passenger work on the GCR system, including fast expresses from Sheffield Victoria to London Marylebone. Later in their careers, they were used on short-distance passenger trains. On lines of the Cheshire Lines Committee during the late 1940s and early 1950s, they hauled expresses between Manchester Central and Liverpool Central, also semi-fast trains from Manchester Central via Northwich to Chester Northgate.

Their 6 ft 9 inches driving wheels made them fast locos, but consequently unsuitable for hauling freight trains. The eleven original 11F locos were withdrawn during 1959 and 1960 as diesel multiple units took over operation of the shorter distance passenger trains, the remaining 24 lasted only a couple more years. Of the 35 built, one has been preserved as part of the national collection.

Length	56ft 5 1/2in
Introduced	1919
Withdrawn	1962
Wheel Arrangement	4-4-0
Builder	GCR Gorton Works, Kitson & Co., & Armstrong Whitworth
Weight	62.13t
TE	19,645 lbf
Driving Wheel Dia	6ft 9in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	20 in × 26 in

Number	Name			Base	Livery
62660	Butler Henderson	*5506, 2660, 506*	D	Barrow Hill	GCR

D17 (NER M1)

NER M1 Class/LNER D17 4-4-0



Dan Cardwell

The North Eastern Railway Class M1 (LNER Class D17/1) is a class of 4-4-0 steam locomotive, designed by Wilson Worsdell.

20 initial engines were built, then 30 further units were built, designated Class Q (LNER Class D17/2).

The last two D17/1s were withdrawn in 1945. Number 1629 was scrapped but number 1621 was saved for preservation.

Introduced	1892
Withdrawn	1945
Wheel Arrangement	4-4-0
Builder	NER Gateshead Works
Weight	53.3t
TE	14,974 lbf
Driving Wheel Dia	7ft 1 1/4in
Wheelbase	23ft 6in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 26 in

Number		Base	Livery
1621	D	Locomotion - NRM Shildon	068

D34 (NBR K)

NBR K Class/LNER D34 4-4-0 'Glen'

The NBR K Class is a class of 4-4-0 steam locomotive of the North British Railway. The first batch (later LNER Class D26) was designed by Matthew Holmes in 1902 for express passenger work. Three more batches (later LNER Classes D32, D33, and D34) were designed by William P. Reid for mixed traffic work. This included perishable goods, such as fish from Mallaig and Aberdeen.

The D34 locomotives, commonly known as Glen Class, were built with superheaters. The LNER later fitted superheaters to all D26, D32, and D33 engines as well. All engines of the K class are sometimes known as Glen Class, although the designation is strictly reserved to the fourth (D34) batch.

Ten engines were built in 1913 and a further twenty-two engines were built between 1917 and 1920. Withdrawals began in 1946 and all the D34s had been withdrawn by 1961. One has been preserved.

Length	56ft
Introduced	1913
Withdrawn	1961
Wheel Arrangement	4-4-0
Builder	NBR Cowlairs works
Weight	58.1t
TE	22,100 lbf
Driving Wheel Dia	6ft
Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	20 in × 26 in

Number	Name			Base	Livery
62469	Glen Douglas	*9256, 2469, 256*	D	Glasgow Riverside Museum	NBB

D40 (GNSR F)

GNSR F Class/LNER D40 4-4-0



The LNER D40 class is a type of 4-4-0 steam locomotive inherited from the GNSR. It consisted of GNSR class V (introduced in 1899 by William Pickersgill) and GNSR class F (introduced in 1920 by T. E. Heywood). The two classes were similar, but the class F was superheated.

The class F locomotives were the only ones to be named by the GNSR, all other classes being numbered only. The class originally comprised eight locomotives, six built by the North British Locomotive Company in Glasgow in 1920, the remaining two by GNSR at Inverurie Works in 1921.

All 21 GNSR locomotives passed to the LNER in 1923. The LNER classed them all as D40 irrespective of whether they were fitted with superheaters (class F) or not (class V). The LNER initially renumbered them by adding 6800 to their GNSR number. In 1946 they completely renumbered all their locomotives and the D40 class became 2260–2261, 2265–2272, 2262–2264 (former class V) and 2273–2280 (former class F). The first locomotive was withdrawn in 1947.

Eighteen of the 21 locomotives passed into British Railways ownership in 1948 (eleven former class V, and seven former class F). BR renumbered them by adding 60000 to their 1946 LNER number. The last locomotive of the D40 class was 62277 Gordon Highlander and it was withdrawn in 1958 from Kittybrewster Depot, Aberdeen. Number 62277 was preserved and renumbered as 49, as an example of the superheated version.

Introduced	1899 (Class V) 1920 (Class F)
Wheel Arrangement	4-4-0
Weight	49.4t
TE	16,180 lbf

LNER

Driving Wheel Dia	6ft 1in
Boiler Pressure	165 psi
Valve Gear	Stephenson
Cylinder Dimensions	18 × 26 in
Withdrawn	1958
Num Cylinders	2, inside

Number	Name			Note	Base
62277	Gordon Highlander	*6849, 2277, 49*	D	Glasgow Corporation	Bo'ness & Kinneil Railway

D49

D49 class 4-4-0 'Hunt'/'Shire'



Michael Drummond from Pixabay

The LNER D49 Class is a class of 4-4-0 steam locomotives designed by Nigel Gresley. They were named after fox hunts and shires. The D49/1s were named after Shire counties, and the D49/2s were named after fox hunts.

A total of 76 D49s in three main variants were built between 1927 and 1935. One, 246/62712 Morayshire has been preserved

Length	58ft 8 3/4in
Width	8ft 7in
Height	13ft
Introduced	1927
Withdrawn	1961

Wheel Arrangement	4-4-0
Builder	LNER Darlington Works
Weight	66.15t
TE	21,556 lbf
Driving Wheel Dia	6ft 8in
Boiler Pressure	180 psi
Num Cylinders	3
Cylinder Dimensions	17 in × 26 in

Number	Name			Note	Base
62712	Morayshire	*2712, 246*	A	Royal Scottish Museum	Bo'ness & Kinneil Railway

E4 (GER T26)

GER T26 Class / LNER E4 2-4-0 'Intermediates'



The GER Class T26 was a class of 2-4-0 steam tender locomotives designed by James Holden for the Great Eastern Railway. At the 1923 grouping they passed to the LNER, who classified them E4. Eighteen survived into British Railways ownership in 1948, and the last was withdrawn in 1959, making them the last 2-4-0 tender locomotives at work in Britain. Their BR numbers were 62780–62797.

100 were produced, one has been preserved as a part of the national collection.

Length	48ft 2in
Introduced	1891
Withdrawn	1959

Wheel Arrangement	2-4-0
Builder	Stratford Works
Weight	40.9t
TE	14,700 lbf
Driving Wheel Dia	5ft 8in
Wheelbase	36ft 7in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 1/2in × 24 in

Number			Base	Livery
62785	*7490, 7802, 2785, 490*	D	Bressingham Steam Museum	GER

E5 (NER 1463)

NER 1463 / LNER E5 Class 2-4-0 'Tennants'

The NER 1463 Class (LNER Class E5) was a class of 2-4-0 steam locomotive of the North Eastern Railway. The class was designed in 1884 by a locomotive committee, chaired by Henry Tennant, and built in 1885.

The new E5 locomotives were direct descendants of Fletcher's "901"s. The cab design was changed, and a completely new tender design was used. A total of twenty E5s were built in 1885, with Darlington and Gateshead building ten each.

All twenty E5s were still allocated to secondary express duties, when they entered LNER ownership, withdrawals started in 1926, and were completed in February 1929. Only one E5 has survived into preservation. It is owned by the National Collection.

Introduced	1885
Withdrawn	1929
Wheel Arrangement	2-4-0
Builder	NER Darlington & Gateshead
Weight	42.8t
TE	12,590 lbf
Driving Wheel Dia	7ft
Wheelbase	16ft 8in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson

Cylinder Dimensions	18 in × 24 in

Number		Base	Livery
1463	D	Hopetown Darlington	068

E6 (NER 901)

NER 901 / LNER E6 Class 2-4-0

The NER 901 Class was a class of 2-4-0 steam locomotive of the North Eastern Railway, designed by Edward Fletcher. Between 1872 and 1882 55 of the class were built for the NER. LNER classed them as E6.

By 1923 only ten of the class remained and the now preserved No.910 was amongst the final five to be withdrawn from service. 910 was displayed by the NER when new at the 50th anniversary of Steam on the Stockton and Darlington railway in 1875, by the LNER at the 100th anniversary in 1925, and again by British Railways at the 150th anniversary in 1975.

Introduced	1872
Withdrawn	1925
Wheel Arrangement	2-4-0
Weight	40.3t
TE	12,590 lbf
Driving Wheel Dia	7ft
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18 in × 24 in

Number		Base	Livery
910	D	Locomotion - NRM Shildon	068

ES1

NER Electric Shunting 1 Class Bo-Bo



Dan Cardwell

Two Bo-Bo electric locomotives were built to operate the Newcastle Quayside branch in 1905. The frames and bodies were constructed by Brush Engineering in Loughborough, who acted as sub-contractors to British Thomson-Houston Co. who supplied the electrical equipment. The track was fitted with a conductor ("third") rail in the tunnels where there was insufficient overhead clearance. It was also used when travelling to/from Heaton shed. For safety reasons, overhead wires were used in the yards at each end of the branch.

Described simply as "0-4 4-0" by both the NER and LNER, these two engines did not have an official classification until 4th October 1945 when they were designated as Class ES1 (Electric Shunting 1). Despite the lack of an official classification, early photographs also show them with the words "CLASS ELECTRIC 1" on their buffer beams.

British Railways (BR) renumbered Nos. 1&2 as Nos. 26500 & 26501. Both locomotives continued to work the Quayside branch until they were replaced by an 0-6-0 diesel on 29th February 1964. The ES1s were put into store at South Gosforth car sheds and withdrawn from stock in September 1964. No. 26501 was sold for scrap in April 1966. No. 26500 was stored at Rugby before entering preservation as a part of the National Collection in 1968.

System	600V DC 3rd Rail & OHL
Introduced	1905
Withdrawn	1964
Wheel Arrangement	Bo-Bo
Builder	Brush & BTH
Length	37ft 11in
Power	640 HP

Weight	56.9t
Transmission	4 x 160 HP Motors
Driving Wheel Dia	3ft
Wheelbase	27ft

Number			Base
1	*26500*	D	Locomotion - NRM Shildon

GNR G Stirling Single

GNR Stirling Single 4-2-2



no 1 at the NRM

Dan Cardwell

The GNR Stirling Single is a class of steam locomotive designed for express passenger work. Designed by Patrick Stirling, they are characterised by a single pair of large (8' 1") driving wheels. Originally the locomotive was designed to haul up to 26 passenger carriages at an average speed of 47 miles per hour, they could reach speeds of up to 85 mph.

A total of 53 were built at Doncaster, in three series introduced in 1870, 1884, and 1894. The GNR did not number its locomotives sequentially, instead using numbers freed up by withdrawing older locomotives. Thus the 1870 series was numbered between GNR No. 1 and 671, the 1884 series 771-8 and 1001-2, and 1894 series 1003-8.

With the arrival of the Ivatt Atlantics after 1898, the class began to be displaced from the most prestigious express services. Several examples were rebuilt by Henry Ivatt after 1898 with a domed boiler, but withdrawals of the 1870 series began in 1899. The last examples of the class were in use on secondary services until 1916. The first of the class, No 1 is the only engine to be preserved. It is exhibited at the National Railway Museum, York. It was

restored to running order during the 1930s for the fiftieth anniversary of the Race to the North and steamed again during the 1980s.

Length	50ft 7in
Introduced	1870
Withdrawn	1916
Wheel Arrangement	4-2-2
Builder	Doncaster Works
Weight	40.08t
TE	11,129 lbf
Max Speed	85mph
Driving Wheel Dia	8ft 1in
Boiler Pressure	140 psi
Num Cylinders	2, outside
Cylinder Dimensions	18 in × 28 in

Number			Base	Livery
1	*98201*	D	National Railway Museum	GNG

J15 (GER Y14)

GER Y14 / LNER J15 class 0-6-0



Dan Cardwell

The Great Eastern Railway (GER) Class Y14 is a class of 0-6-0 steam locomotive. The LNER classified them J15. The Class Y14 was designed by T.W. Worsdell for both freight and passenger duties - a veritable 'maid of all work'.

Introduced in July 1883, they were so successful that all the succeeding Locomotive Superintendents continued to build new batches up until 1913 with little design change, the final total being 289. During World War I, 43 of the engines served in France and Belgium.

Because of their light weight the locomotives were given the Route Availability (RA) number 1, indicating that they could work over nearly all routes.

289 were built, by the time British Railways was formed, there were 127 J15 locomotives still in existence. Only one has been preserved.

Length	47ft 3in
Introduced	1883
Withdrawn	1962
Wheel Arrangement	0-6-0
Builder	GER Stratford Works & Sharp, Stewart & Co.
Weight	37.7t
TE	16,940 lbf
Driving Wheel Dia	4ft 11in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 24 in

Number			Note	Base	Livery
564	*4564, 5462, 65462*	A	Curently running as Y14 (2015). M&GN Society	North Norfolk Railway	GER

J17 (GER G58)

GER G58 / LNER J17 Class 0-6-0



The GER Class G58 (LNER Class J17) was a class of 0-6-0 steam tender locomotives designed by James Holden for the Great Eastern Railway in England. The class consisted partly of new locomotives built from 1905 to 1911 and partly of rebuilds of the earlier GER Class F48 built from 1900 to 1903. The rebuilding started under GER auspices from 1921 and was continued by the LNER after grouping in 1923.

The earlier GER Class F48 were built between 1900 and 1903 and had round-top boilers; there were sixty of them. The G58 had Belpaire fireboxes, like those fitted to the F48 No. 1189, and later fitted to the Class D56 Claud Hamilton 4-4-0s. A further thirty of the Belpaire boiler type followed to form Class G58.

On the LNER, those retaining round-top fireboxes were classified J16, and those built, or rebuilt, with Belpaire fireboxes were classified J17. The J16 category ceased to exist in 1932. All the J16s had been rebuilt as J17s by 1932 and 89 J17s passed to British Railways (BR) in 1948.

GER no. 1217 (LNER 8217, 5567, BR 65567) was withdrawn in 1962 and as the sole survivor was acquired privately for preservation. It is now part of the UK National Collection.

Length	50ft 6in
Introduced	1905
Withdrawn	1962
Wheel Arrangement	0-6-0
Builder	GER Stratford Works
Weight	46.1t
TE	24,340 lbf
Driving Wheel Dia	4ft 11in
Wheelbase	38ft

Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	19 in × 26 in

Number			Base	Livery
65567	*8217, 5567, 1217*	D	Barrow Hill	BLK

J21 (NER C1)

NER C1 / LNER J21 Class 0-6-0

The NER Class C1, was a class of 0-6-0 freight locomotives designed by T.W. Worsdell. They were used throughout the NER system, although particularly in Teesside between 1886 and 1962.

Thirty examples were built at Gateshead between 1886 and 1894, but after 1900 171 examples of the similar Class C compound locomotives were converted to simple operation and added to the class. The whole class was then re-designated as Class C and were numbered between 16 and 1820.

All 201 of the class passed into LNER ownership in 1923, and they were classified J21 but without any sub-classes to reflect the different backgrounds or dimensions. The class retained their original NER numbers under the 1924 renumbering scheme.

Withdrawal of the class began in 1929 but proceeded relatively slowly and there were still substantial numbers in service in 1943 when the survivors were renumbered between 5025 and 5123 (with gaps). Eighty-two surviving examples passed into BR ownership in 1948. These were gradually withdrawn from service over the next fourteen years.

One example, (then numbered 876) was withdrawn in November 1939, but as a result of the onset of war was subsequently repaired and re-instated. It survived as BR 65033 until 1962. The locomotive was then purchased in 1972 for use at the newly established Beamish Museum. 65099 was also a candidate for preservation, but was scrapped.

Introduced	1886
Withdrawn	1962
Wheel Arrangement	0-6-0
Builder	NER Gateshead and Darlington Works
Weight	43.1t
Driving Wheel Dia	5ft 1 1/4in
Wheelbase	16ft 6in
Boiler Pressure	160 psi
Num Cylinders	2, inside

Valve Gear	Joy
Cylinder Dimensions	19 in × 24 in

Number			Base	Livery
65033	*5033, 876*	R	Locomotive Maintenance Services, Loughborough	BLK

J27 (NER P3)

NER P3 / LNER J27 Class 0-6-0



Dan Cardwell

The NER Class P3, classified J27 by the LNER, is a class of 0-6-0 steam locomotive. The P3 Class was designed by Wilson Worsdell and was a relatively minor modification of the existing NER Class P2 (LNER Class J26). The most significant change was a deeper firebox with shallower sloping fire grate. This was achieved by raising the boiler slightly, and by reducing the clearance between the firebox and the rear axle. The P3 Class were a freight engine by nature and used for hauling long trains of freight.

Initially 80 J27s were built between 1906 and 1909 in five batches, distributed amongst the NER's Darlington Works, North British Locomotive Company, Beyer, Peacock and Company, and Robert Stephenson and Company. Twelve years later, a batch of 25 J27s were built at Darlington with Schmidt superheaters and piston valves. These were delivered in 1921-2 and were followed by a final order of 10 placed in December 1922 and built by the LNER at Darlington Works in 1923. The superheated J27s could be identified by their extended smokeboxes.

Withdrawals began in March 1959, but in June 1966, thirty-six were still going. The last J27 was withdrawn in September 1967. One, BR 65894, has survived to preservation and was

purchased directly from BR by the North Eastern Locomotive Preservation Group on 1 December 1966.

Length	51ft 11 1/8in
Introduced	1906
Withdrawn	1967
Wheel Arrangement	0-6-0
Builder	NER Darlington Works & Various others
Weight	50.3t
TE	24,640 lbf
Driving Wheel Dia	4ft 7 1/4in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	18 1/2 in × 26 in

Number			Note	Base	Livery
65894	*98494, 2392, 5894*	A	North Eastern Locomotive Preservation Group	North Yorkshire Moors Railway	BLK

J36 (NBR C)

NBR C Class/LNER J36 0-6-0



The NBR C Class (LNER Class J36) is a class of 0-6-0 steam locomotives designed by Matthew Holmes for freight work on the North British Railway (NBR). They were introduced in 1888 with inside cylinders and Stephenson valve gear.

A total of 168 locomotives was built, of which 123 came into British Railways ownership at nationalisation in 1948. One has been preserved.

Introduced	1888
Wheel Arrangement	0-6-0
Builder	NBR Cowlairs works, Neilson & Co, and Sharp Stewart and Company
Length	49ft 2in
Withdrawn	1967
Weight	42.6t
TE	19,690 lbf
Driving Wheel Dia	5ft
Boiler Pressure	165 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18 in × 26 in

Number	Name			Base
673	Maude	*65243*	D	Bo'ness & Kinneil Railway

J52 (GNR J13)

GNR J13 Class/LNER J52 0-6-0ST



Dan Cardwell

The GNR)Class J13, classified J52 by the LNER is a class of 0-6-0ST steam locomotive intended primarily for shunting. The Class J13 were introduced in 1897 designed by Henry

Ivatt based on the earlier domeless GNR Class J14 (LNER Class J53). Eighty-five J13s were built up to 1909. Several J14s were rebuilt as J13s from 1922.

Some locomotives were fitted with condensing apparatus for working on the Metropolitan Railway. Condensing apparatus was added to, or removed from, locomotives when they were allocated to, or away from, the London area.

The LNER introduced two subclasses, J52/1 for the rebuilt engines and J52/2 for the originals. Forty-eight J52/1s and 85 J52/2s passed to British Railways in 1948 and they were numbered 68757–68889.

68846 was privately preserved by Captain Bill Smith in 1959 and became the first locomotive to be privately preserved from BR. In 1980 it was donated to the National Railway Museum and made regular visits to other preserved railways and museums on its two Boiler Ticket durations in preservation.

Length	31ft 3 3/4in
Introduced	1897
Withdrawn	1961
Wheel Arrangement	0-6-0 ST
Builder	Doncaster Works, Robert Stephenson & Co. & Sharp, Stewart & Co.
Weight	52.53t
TE	21,735 lbf
Driving Wheel Dia	4ft 8in
Wheelbase	15ft 6in
Boiler Pressure	170 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18in x 26in

Number			Base	Livery
1247	*98346, 4247, 8846, 68846*	D	National Railway Museum	GRN

J69 (GER S56)

GER Class S56/LNER J69 0-6-0T



The GER Class S56 was a class of 0-6-0T steams designed by James Holden for the GER. Together with some rebuilt examples of GER Class R24, they passed to the LNER at the grouping in 1923, and received the LNER classification J69.

The Class S56 were a development of the Class R24, being almost identical, apart from higher boiler pressure and larger water tanks. Twenty were built in 1904 at Stratford Works. All twenty passed to the LNER in 1923. Some were sold to the War Department.

At nationalisation in 1948, the remainder passed to British Railways, who added 60000 to their number. Post-war withdrawals started in 1958, and by 1962 all had been retired. One has been preserved.

Diagram	S56, P57
Length	27ft 8in
Introduced	1904
Withdrawn	1962
Wheel Arrangement	0-6-0 T
Builder	Stratford Works
Weight	43.1t
TE	19,091 lbf
Driving Wheel Dia	4ft
Wheelbase	13ft 10in
Boiler Pressure	180 psi
Num Cylinders	2, inside
Cylinder Dimensions	16 1/2 in × 22 in

LNER

Number			Base	Livery
68633	*7087, 8633, 87*	D	Bressingham Steam Museum	GER

J72 (NER E1)

NER E1 / LNER J72 Class 0-6-0T

The NER Class E1, classified as Class J72 by the LNER, is a class of small 0-6-0T steam locomotives designed by Wilson Worsdell for shunting. They had inside cylinders and Stephenson valve gear. They were a development of the earlier NER Class E (LNER Class J71) 0-6-0T designed by T.W. Worsdell who was Wilson Worsdell's brother.

A total of 113 locomotives were built: 50 locos built by NER at Darlington Works, 25 locos built for NER by Armstrong Whitworth & Co, 10 locos built by LNER at Doncaster Works, and 28 locos built by British Railways at Darlington Works This is a rare, possibly unique, example of a locomotive class which was built, completely unchanged, under pre-grouping, post-grouping and British Railways administration.

One BR built example affectionately known as Joem survives.

Introduced	1898
Withdrawn	1964
Wheel Arrangement	0-6-0 T
Builder	Doncaster Works & Armstrong Whitworth
Weight	39.2t
TE	16,760 lbf
Driving Wheel Dia	4ft 1 1/4in
Boiler Pressure	140 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 in × 24 in

Number			Base	Livery
69023	*59*	A	Hopetown Darlington	GRN

K1

K1 class 2-6-0



Andy Gawn from Pixabay

The LNER Class K1 is a type of 2-6-0 (mogul) steam locomotive designed by Edward Thompson. Thompson preferred a simple two-cylinder design instead of his predecessor Nigel Gresley's three-cylinder one.

Seventy K1s were built based on the prototype K1/1 which was made from a converted class K4 locomotive (number 3445 MacCallin Mor) which was rebuilt in 1945. Peppercorn ordered the 70 locomotives of Thompson's design from the North British Locomotive Company of Glasgow. They were the last steam locomotives built to an LNER design, although all were delivered under British Railways auspices. Numbered 62001–62070 they entered service between May 1949 and March 1950.

One has been preserved.

Length	59ft 10in
Introduced	1949
Withdrawn	1967
Wheel Arrangement	2-6-0
Builder	North British Locomotive Company
Weight	67.1t
TE	32,080 lbf
Max Speed	50mph
Driving Wheel Dia	5ft 2in
Boiler Pressure	225 psi
Num Cylinders	2, outside
Cylinder Dimensions	20 in × 26 in

Number			Note	Base	Livery
62005	*98605, 2005*	O	Under overhaul at West coast Railway Company Carnforth	North Yorkshire Moors Railway	BLK

K4

K4 class 2-6-0



The LNER Class K4 is a class of 2-6-0 steam locomotives designed by Nigel Gresley for the steep grades of the West Highland Line.

The May 1936 design was based on the 1924 proposal for a 2-6-0 with 5 ft 2 in diameter coupled wheels, but with K3 cylinders, a K2 boiler, and a B17 firebox. The frame was 5 inches longer than the K3, with a design boiler pressure of 180 psi giving a tractive effort of 32,939 lbf, and an estimated factor of adhesion of 3.92.

Gresley later raised the steam pressure to 200 psi which saw the tractive effort leap to 36,598 lbf, with a corresponding reduction in the factor of adhesion to 3.54.

6 were built, 1 has been preserved.

Introduced	1937
Withdrawn	1961
Wheel Arrangement	2-6-0
Builder	Darlington Works
Weight	69.5t
TE	36,598 lbf
Max Speed	60mph

LNER

Driving Wheel Dia	5ft 2in
Boiler Pressure	200 psi
Num Cylinders	3
Cylinder Dimensions	18.5 in × 26 in

Number	Name			Base	Livery
61994	The Great Marquess	*98642, 3442*	S	Cameron Railway Trust	BLK

N2

GNR N2 Class 0-6-2T



The GNR Class N2 is an 0-6-2T side tank steam locomotive designed by Nigel Gresley and introduced in 1920. Further batches were built by the LNER from 1925. They had superheaters and piston valves driven by Stephenson valve gear. Some locomotives were fitted with condensing apparatus for working on the Metropolitan Railway Widened Lines between King's Cross and Moorgate.

The N2s were designed for suburban passenger operations, and worked most of the duties out of King's Cross and Moorgate, often hauling one or two quad-art sets of articulated suburban coaches. These ran to places such as New Barnet and Gordon Hill on the Hertford loop. They also hauled some empty coaching stock trains between King's Cross and Ferme Park carriage sidings. They were also a common sight in and around Glasgow and Edinburgh operating suburban services, mainly on what is today known as the North Clyde Line.

107 were produced. The first withdrawal was in 1955, and another the following year, but official withdrawals didn't start until 1957. Many of their later duties included standing-in for diesel failures and station pilots. The last thirteen N2s were withdrawn in 1962. 1 has been preserved.

Length	37ft 10 3/4in
Introduced	1920
Withdrawn	1962
Wheel Arrangement	0-6-2T
Builder	Various
Weight	72.6t
TE	19,945 lbf
Driving Wheel Dia	5ft 8in
Wheelbase	23ft 9in
Boiler Pressure	170 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 26 in

Number			Note	Base	Livery
69523	*4744, 9523, 1744*	O	Gresley Society	North Norfolk Railway	GNG

N7 (GER L77)

GER L77 / LNER N7 Class 0-6-2T

The GER Class L77, LNER Class N7, is a class of 0-6-2T steam locomotives. They were designed by Alfred John Hill of the Great Eastern Railway and introduced in 1915. The design was perpetuated by Nigel Gresley of the LNER after the 1923 grouping.

Some were fitted with condensing apparatus for working on the Metropolitan line and the East London Line but the condensing apparatus was removed between 1935 and 1938.

134 were built and one example is preserved.

Length	34ft 10in
Introduced	1915
Withdrawn	1962
Wheel Arrangement	0-6-2T
Builder	Various
Weight	65.89t
TE	20,512 lbf

LNER

Driving Wheel Dia	4ft 10in
Wheelbase	23ft
Boiler Pressure	180 psi
Num Cylinders	2, inside
Valve Gear	Walschaerts
Cylinder Dimensions	18 in × 24 in

Number			Base	Livery
69621	*98321, 999E, 7999, 9621, 999*	A	East Anglian Railway Museum	BLK

NER 1001

NER 1001 Class 0-6-0



The NER 1001 Class was a class of long-boiler 0-6-0 steam locomotive designed in Britain by William Bouch.

A total of 192 NER 1001 class locomotives were built from 1852 by a number of private manufacturers, as well as the NER's own works at Darlington and Shildon.

The last ten NER 1001s were delivered in 1875. Many were rebuilt in the following twenty-five years. The last was withdrawn in 1923. Having travelled an official mileage of 908,984 miles, locomotive number 1275 has been preserved.

Introduced	1852
Withdrawn	1923
Wheel Arrangement	0-6-0

LNER

Builder	NER Darlington & Shildon
Weight	35.8t
TE	14,750 lbf
Driving Wheel Dia	5ft 0 1/2in
Wheelbase	11ft 10in
Boiler Pressure	140 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	17 in × 26 in

Number		Base	Livery
1275	D	National Railway Museum	068

NER Autocar

NER Petrol Electric Railcar



Dan Cardwell

The Petrol Electric Autocars were built by the North Eastern Railway in 1903 at their carriage works in York. These were powered by petrol engines which generated electricity for two traction motors which were mounted on the bogie underneath. This means of powering a railway vehicle was pioneering and would eventually be developed into the diesel-electric technology that powered and powers many locomotives worldwide. The railcars were numbered 3170 and 3171.

Various petrol engines were used, an 85 hp Napier engine was the first to be installed, but these were found to be unsatisfactory, so were replaced in 1904 by Wolseley engines. The engine had a 3-foot diameter flywheel and was coupled directly to a Westinghouse multi-

polar dynamo. A small dynamo driven by belt from the flywheel provided charge for the accumulators which enabled electric starting of the engine, lighting for the carriage, and the 'exciting current' for the field coils in the main dynamo, controlled by rheostats at either end of the railcar. The engine speed could likewise be controlled via a throttle from either end of the railcar. The output from the main dynamo was sent to two electric motors, both mounted on the bogie underneath the engine room.

In 1923, No. 3170 was re-engined with a more powerful 225 hp engine, allowing it to haul an unpowered coach, an early version of the multiple units used today. Maximum speed was only 36 mph but acceleration and braking to and from this was reported to be brisk, taking around 30 seconds. In appearance, the railcars were similar to single-deck trams. The NER called them autocars, as they could be driven from either end, as with modern passenger trains. No. 3171 was withdrawn in 1930 and No. 3170 in 1931.

The body of No. 3170 was used as a holiday home near Kirbymoorside in North Yorkshire for 70 years and was bought by a railway enthusiast in 2003. A trust was formed to restore the vehicle and a trailer coach to form an Edwardian multiple unit that will be twice as old as most of the (ex-BR) DMUs on other heritage railways.

No. 3170 has now been preserved. There are several changes to the autocar, to reflect changes in railway technology and regulation. Modern regulations no longer allow the use of an old petrol engine, so a modern diesel generator has been fitted with appropriate traction motors. The power unit is based around a new diesel engine from Cummins and the chassis is a strengthened conversion of one from a GNR milk and brake van.

Length	55ft 10in
Width	8ft 6in
Height	13ft 1 1/4in
Introduced	1903
Withdrawn	1931
Builder	NER York Carriage Works
Weight	35.3t
Engine	Cummins Diesel (originally Napier 85hp Petrol)
Transmission	Electric
Wheelbase	45ft

Number		Note	Base
3170	P	Autocar Trust	Embsay & Bolton Abbey Steam Railway

O4 (GCR 8K)

GCR Class 8K / LNER 04 2-8-0



The LNER Class O4 initially consisted of the 131 ex-GCR Class 8K 2-8-0 steam locomotives acquired on grouping in 1923. The engines were designed by John G. Robinson and built at the GCR's Gorton Locomotive Works, Manchester.

The O4s were added to when the LNER purchased 273 ex-ROD 2-8-0s to the same design between 1923 and 1927. Meanwhile, the 19 GCR Class 8M (LNER Class O5) were rebuilt as O4 standard during the 1920s and 1930s. 92 O4 locomotives were requisitioned by the War Department during World War II and shipped during late 1941 for operation in the Middle East. The O4 class were used to haul heavy freight trains throughout the LNER system. 329 engines remained in operation at 1 January 1948.

In 1944, 58 O4s were rebuilt with 100A boiler, Walschaerts valve gear and new cylinders at Gorton Works, then classified O1. The surviving 329 Class O4 locomotives passed to BR on 1 January 1948. Withdrawal of O4 engines by BR commenced in 1959 and the last was taken out of service in April 1966. One has been preserved.

Length	61ft 8 1/2in
Introduced	1911
Withdrawn	1966
Wheel Arrangement	2-8-0
Weight	75.85t
TE	31,325 lbf
Driving Wheel Dia	4ft 8in
Wheelbase	51ft 2 1/2in
Boiler Pressure	180 psi
Num Cylinders	2, outside
Valve Gear	Stephenson

Cylinder Dimensions	21 in × 26 in

Number			Note	Base
1984		E		Dorrigo, Northern NSW, Australia
2003		E		Dorrigo, Northern NSW, Australia
2004		E		Richmond Vale Steam Centre, Kurri Kurri, NSW
63601	*5102, 3509, 3601, 102, 1912, ROD 1912*	O	ROD 1912 is a fictional number	Great Central Railway

P2

P2 Class 2-8-2

LNER Class P2 No. 2007 Prince of Wales is a 2-8-2 "Mikado" steam locomotive being built at Darlington Locomotive Works, England, and managed by the A1 Steam Locomotive Trust. It will be the seventh member of its class and the only P2 in existence; the original six were built between 1934 and 1936 for the LNER to a design by Nigel Gresley, and employed to haul heavy passenger trains on the Edinburgh to Aberdeen line.

The P2s were declared Britain's most powerful express passenger engines, although none were preserved. Construction on Prince of Wales began in 2014 with its design based on P2 No. 2001 Cock o' the North with some modifications to improve maintenance, address historic problems, and comply with modern railway operations. It is expected to be complete in 2023 at an estimated cost of £5 million, after which it will run on the mainline and heritage railways.

Introduced	1934 (originals) TBC (2007)
Withdrawn	1944
Wheel Arrangement	2-8-2
Builder	Doncaster Works
Weight	112t
TE	43,684 lbf
Driving Wheel Dia	6ft 2in
Wheelbase	37ft 11in
Boiler Pressure	220 (originals) 250 (2007)
Num Cylinders	3
Valve Gear	Lentz (2007) Piston valves (originals)
Cylinder Dimensions	19 3/4 in × 26 in

Number	Name		Note	Base
2007	Prince of Wales	C	P2 Steam Locomotive Company	Hopetown Darlington

Q6 (NER T2)

NER T2 / LNER Q6 0-8-0



Scott Payne from Pixabay

The NER Class T2, classified as Class Q6 by the LNER, is a class of 0-8-0 steam locomotive designed for heavy freight, especially for hauling long coal trains to various collieries in the North Eastern region of the UK, with a maximum speed of 40 miles per hour. 120 were built at Darlington Works and Armstrong Whitworth between 1913 and 1921 to the design of Vincent Raven, based on the NER Class T and T1 (LNER Q5).

All passed into British Railways ownership in 1948. General withdrawals were from 1963 to 1967. One has been preserved

Introduced	1913
Withdrawn	1967
Wheel Arrangement	0-8-0
Builder	Darlington Works & Armstrong Whitworth
Weight	67t
TE	28,800 lbf
Max Speed	40mph
Driving Wheel Dia	4ft 7 1/2in
Boiler Pressure	180 psi

Num Cylinders	2, outside
Cylinder Dimensions	20 in × 26 in

Number			Note	Base	Livery
63395	*2238, 3395*	O	North Eastern Locomotive Preservation Group	North Yorkshire Moors Railway	BLK

Q7 (NER T3)

NER T3 / LNER Q7 Class 0-8-0

The NER Class T3, classified Q7 by the LNER is a class of 0-8-0 steam locomotive designed for heavy freight. Five were built by the NER in 1919 and a further 10 by the LNER in 1924.

All 15 passed into British Railways ownership in 1948 and they were numbered 63460-63474. They remained master of their task till the arrival of BR Standard Class 9F 2-10-0s in the 1950s. With the loss of their bread and butter work British Railways retired all 15 of the Q7s in November and December 1962.

One has been preserved.

Introduced	1919
Withdrawn	1962
Wheel Arrangement	0-8-0
Builder	Darlington Works
Weight	72.7t
TE	36,965 lbf
Driving Wheel Dia	4ft 7 1/4in
Boiler Pressure	180 psi
Num Cylinders	3
Cylinder Dimensions	18 1/2 in × 26 in

Number			Base	Livery
63460	*901, 3460*	D	Locomotion - NRM Shildon	BLK

V2

V2 Class 2-6-2



The LNER Class V2 2-6-2 steam locomotives were designed by Sir Nigel Gresley for express mixed traffic work and were built at the LNER shops at Doncaster and Darlington between 1936 and 1944. The best known is the first of the class, 4771 (later 800 and 60800) Green Arrow, which is the sole survivor of the class.

Length	66ft 5 1/8in
Introduced	1936
Withdrawn	1966
Wheel Arrangement	2-6-2
Builder	LNER Darlington Works, LNER Doncaster Works
Weight	94.6t
TE	33730 lbf
Driving Wheel Dia	6ft 2in
Wheelbase	33ft 8in
Boiler Pressure	220 psi
Num Cylinders	3
Valve Gear	Walschaerts (outside) Gresley conjugated (inside)
Cylinder Dimensions	18 1/2 in x 26 in

Number	Name			Base	Livery
60800	Green Arrow	*98771, 4771, 800*	D	Danum Gallery, Doncaster	LNE

X1

NER No.66 / LNER X1 Class 2-2-4 T



Dan Cardwell

NER No. 66 Aerolite is a preserved British steam locomotive. It was classified X1 by the LNER. It was capable of reaching 55 mph.

Aerolite was built in 1869 as a replacement for an engine of the same name built by Kitson's for the Great Exhibition in 1851 and which was destroyed in a collision in 1868. The engine, like its predecessor, was used to haul the Mechanical Engineer's saloon. Originally a 2-2-2WT well tank, side tanks were added 1886, and around this time it received the number 66.

In 1892 Aerolite was rebuilt into a 4-2-2T, destroying much of the original engine. The well tank was removed, the side tanks expanded, and the two-cylinder Worsdell-von Borries compounding system applied. In 1902 it was again rebuilt into a 2-2-4T. Aerolite was withdrawn in 1933 and preserved in 1934 at the LNER's York Museum. It can be seen as a static exhibit at the National Railway Museum in York.

Length	32ft 8 1/2in
Introduced	1869
Withdrawn	1933
Wheel Arrangement	2-2-4 T
Builder	NER Gateshead Works
Weight	44-81t
TE	6390 lbf
Max Speed	55 mph
Driving Wheel Dia	5ft 7 3/4in
Wheelbase	20ft 7in

Boiler Pressure	175 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	13in x 20in HP Cylinder, 18 1/2in x 20in LP Cylinder

Number	Name			Base	Livery
66	Aerolite	*1478*	D	Locomotion - NRM Shildon	068

Y1

Y1 Class 0-4-0 VBGT



68153 at Middleton Railway

Dan Cardwell

The LNER Class Y1 was a class of 0-4-0 geared steam locomotives built by Sentinel Waggon Works for the LNER and introduced in 1925. They passed into British Railways ownership in 1948 and were numbered 68130-68153.

The superheated vertical water-tube boiler and the engine were similar to those used in Sentinel steam wagons. The engines had poppet valves and reversing was by sliding camshaft. The advantage of the water-tube boiler was that steam could be raised much more quickly than with a conventional fire-tube boiler.

One has been preserved.

Introduced	1925
Withdrawn	1961
Wheel Arrangement	0-4-0 VBGT
Builder	Sentinel

Weight	20.1t
TE	7260 lbf
Max Speed	21mph
Driving Wheel Dia	2ft 6in
Wheelbase	7ft
Boiler Pressure	275 psi
Num Cylinders	2, Vertical
Cylinder Dimensions	6 3/4in v 9in

Number			Base
68153	*59, 8153, 54, 8837*	O	Middleton Railway

Y5 (GER 209)

GER Class 209 / LNER Class Y5 0-4-0 ST

The GER Class 209 (LNER Class Y5) was a class of 0-4-0 saddle tank steam locomotives of the Great Eastern Railway. These locomotives were similar to the NBR G Class but had flat-topped, instead of round-topped, tanks. A total of eight were built – four by Neilson and Company in 1874 and four more by the GER's Stratford Works between 1897 and 1903.

Length	21ft 4 1/2in
Introduced	1874
Withdrawn	1948
Wheel Arrangement	0-4-0 ST
Builder	GER Stratford Works & Neilson and Co.
Weight	21.5t
TE	7970 lbf
Driving Wheel Dia	3ft 7in
Wheelbase	5ft 9in
Boiler Pressure	140 psi
Num Cylinders	2, outside
Cylinder Dimensions	12in x 20in

Number	Name			Note	Base	Livery
229			O		Flour Mill Workshop, Bream	UUU
229	Great Eastern Railway 229	*2119*	O	0-4-0ST	Flour Mill Workshop, Bream	

Y7 (NER H)

NER H / LNER Y7 Class 0-4-0T



1310 at Middleton Railway

Dan Cardwell

The NER Class H, classified as Class Y7 by the LNER is a class of 0-4-0T steam locomotives designed for shunting. Introduced in 1888 by Thomas W. Worsdell, six were built in 1888. Their simple, bare design easily navigated the tight curves and poor quality track which they ran on. The H proved so successful, that the NER ordered a further ten in 1891, three in 1897 and five more were ordered by the LNER in 1923.

Length	20ft 4in
Width	7ft 1in
Height	12ft
Introduced	1888
Withdrawn	1952
Wheel Arrangement	0-4-0 T
Builder	NER Gateshead Works, LNER Darlington Works
Weight	23.1t
TE	11040 lbf
Driving Wheel Dia	3ft 6 1/4in
Wheelbase	6ft
Boiler Pressure	140 psi
Num Cylinders	2, inside
Cylinder Dimensions	14in x 20 in

Number	Note	Base	Livery

LNER

1310	*35, 900, 38*	A	Steam Power Trust, rebuilt 1951 with frame of no. 900	Middleton Railway	
68088	*985, 8088*	A	Steam Power Trust. On loan from North Norfolk Railway	Mid Suffolk Railway	BLK

Y9 (NBR G)

NBR G Class/LNER Y9 0-4-0



The NBR G Class (LNER Class Y9) is a class of 0-4-0ST steam locomotive designed for shunting. Some locomotives were equipped with small wooden tenders to carry extra coal. They were introduced in 1882 and thirty-eight entered service on the NBR between 1882 and 1899. Like most 0-4-0 tanks of the period, it has outside cylinders and inside slide valves driven by Stephenson valve gear.

Introduced	1887
Wheel Arrangement	0-4-0
Builder	Neilson & Co (first 2) NBR Cowlairs Works, Springburn, Glasgow (remaining 36)
Length	23ft 8 3/4in
Withdrawn	1962
Weight	31.1t
TE	9845 lbf
Driving Wheel Dia	3ft 8in
Wheelbase	7ft
Boiler Pressure	130 psi
Num Cylinders	2, outside

LNER

Valve Gear	Stephenson
Cylinder Dimensions	14 in × 20 in

Number			Base
42	*68095, 9042*	D	Bo'ness & Kinneil Railway

SR

0298 Beattie Well Tank

Beattie Well Tank LSWR Class 0298 2-4-0WT



The LSWR 0298 Class or Beattie Well Tank is a class of British steam locomotive. They are 2-4-0WTs, originally built between 1863 and 1875 for use on passenger services in the suburbs of London, but later used on rural services in Southwest England. Out of a total production of 85, two locomotives have been preserved in an operational condition.

In 1850, the LSWR decided that the London suburban passenger services should be operated using small tank locomotives. To determine the most suitable type, Joseph Hamilton Beattie, the LSWR Mechanical Engineer, prepared a series of designs, each of which incorporated one or more differences from the previous class. A small quantity of each were produced. Having chosen the most suitable characteristics, Beattie prepared a standard design of 2-4-0WT and the LSWR began to take delivery of these in 1863.

Length	26ft 2in
Height	11ft 11 5/8in
Introduced	1863
Withdrawn	1962
Wheel Arrangement	2-4-0 WT
Builder	Beyer Peacock
Weight	38.4t
TE	11,050 lbf
Driving Wheel Dia	5ft 7in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Cylinder Dimensions	16 1/2 in × 20 in

Number			Base	Livery
30585	*98185, E0314, 3314, 0314*	A	Buckinghamshire Railway Centre	BLK
30587	*E0298, 3298, 0298*	A	Bodmin & Wenford Railway	BLK

0415 Radial Tank

LWSR 415 Class 4-4-2T Radial Tank

The LSWR 415 class is a 4-4-2T steam tank locomotive, with the trailing wheels forming the basis of its "Radial Tank" moniker. It was designed by William Adams and introduced in 1882 for service on the London and South Western Railway (LSWR).

Originally rostered for suburban traffic, the class was soon displaced to the countryside by Dugald Drummond's M7 class. Most of the class was scrapped around the end of the First World War, and further decreases meant that all of them were due to be withdrawn by 1929. However, the class was noted for its long service on the Lyme Regis branch line, and three members of this long obsolete class were utilised on this duty until 1962, when suitable replacements became available. One has survived

Length	36ft 5 1/2in
Introduced	1882
Withdrawn	1961
Wheel Arrangement	4-4-2T
Builder	Various
Weight	56.3t
TE	14,919 lbf
Driving Wheel Dia	5ft 7in
Boiler Pressure	160 psi
Num Cylinders	2, outside
Valve Gear	Modified Stephenson
Cylinder Dimensions	17 1/2 in × 24 in

Number			Base	Livery
30583	*E0488, 3488, 488*	D	Bluebell Railway	073

3SUB

SR 3SUB Class EMU



Dan Cardwell

The class 3SUB were DC suburban electric multiple units introduced by the LSWR in 1915 and introduced by the Southern Railway in the period up to 1939. The class designation 3SUB was not used by the Southern Railway, although some authors refer to these units as 3SUB. When rebuilt to four cars in the 1940s, they became class 4SUB.

Eighty-four electric multiple units, numbered E1–E84, were constructed in 1913 by converting steam-hauled carriages which had been built from 1904 for suburban service. The conversions being carried out at Eastleigh Works. Each multiple unit comprised two motor coaches and a trailer.

System	750v DC
Formation	Power car + trailer + power car
Introduced	1915
Withdrawn	1948
Builder	Eastleigh Works
Power	820kW
Max Speed	75 mph
Brakes	Air (Westinghouse)

Number			Form	Note	Base	Livery
1293	*4308*	D	8143	DBMT	National Railway Museum	GRN

4DD

SR 4DD EMU

The SR Class 4DD was an experimental double-decker electric multiple unit built in 1949 and operated by the Southern Railway until 1971. Conceived by Oliver Bulleid for the Southern Railway's commuter line from London Charing Cross to Dartford, the two trains were the only double-decker trains to be used on the mainline railway network in Britain. Whilst commonly used in continental Europe and North America, the restrictive railway loading gauge in the United Kingdom prohibits normal double-decker trains with two fully separated decks.

The 4DD was more split-level than truly double-deck because the compartments were alternately high and low to ensure that the overall height of the train was exactly within the clearances necessary to safely pass through tunnels and under bridges. An assessment after one year in service revealed that the design would not be the optimum solution to the problems of overcrowding, nor would it help increase capacity, and the decision was made to extend trains from eight coaches to ten coaches by using regular, single-decker multiple units.

Unusually for an "experiment" they lasted in traffic from 1949 to 1971, undergoing routine maintenance and repaints with no hiccups in their life. The two units were finally withdrawn on 1 October 1971 having travelled approximately 700,000 miles in service.

Formation	DMBT-TT-TT-DMBT
System	750V DC Third Rail
Width	2.82m
Introduced	1949
Withdrawn	1971
Weight	135.1t
Brakes	Electro-pneumatic

Number			Note	Base
13003	*S13003S, 4002, 4902*	R	DMBT	Hope Farm, Sellindge
13004	*S13004S, 4002, 4902*	R	DMBT	Hope Farm, Sellindge

A1 Terrier

LB&SCR A1 Class 0-6-0T Terrier



The LB&SCR A1 class is a class of British 0-6-0T steam locomotive. Designed by William Stroudley, 50 members of the class were built in 1872 and between 1874 and 1880, all at Brighton railway works. The class has received several nicknames, initially being known as "Rooters" by their south London crews. However, the engines were more famously known as "Terriers" on account of the distinctive 'bark' of the exhaust beat.

Eight members of the class were purchased privately for preservation, with two other examples being donated by British Railways to the Canadian Railway Museum and the National Railway Museum.

Length	26ft 0 1/2in
Introduced	1872
Withdrawn	1963
Wheel Arrangement	0-6-0 T
Builder	Brighton Railway Works
Weight	27.9t
TE	7650 lbf
Max Speed	60 mph
Driving Wheel Dia	4ft
Boiler Pressure	150 psi
Num Cylinders	2, inside
Cylinder Dimensions	12in x 20in

Number	Name	Note	Base	Livery

SR

32636	Fenchurch	*B636, 2636, 672*	O	under overhaul at Statfold Engineering	Bluebell Railway	LBS
32650	Whitechapel, Fishbourne, Sutton	*B650, W9, 50, 650*	O	Sutton Borough Council	Spa Valley Railway	
32655	Stepney	*B655, 2655, 55, 655*	D		Bluebell Railway	BLK
32662	Martello	*B66, 2662, 62, 662*	A		Bressingham Steam Museum	BLK
32670	Bodiam, Poplar	*70*	S	Tenterden Railway Company and The Terrier Trust	Kent & East Sussex Railway	BLK
32678	Knowle, Bembridge	*B6768, W4, W14, 78, 678, 2678*	O	The Terrier Trust	Kent & East Sussex Railway	BLK
380S	Boxhill	*82, 682*	D		National Railway Museum	LBS
DS680	Waddon	*A751, 680S, 46, 646*	E		Canadian Railroad Historical Museum	LBS
W11	Newport, Brighton	*32640, 2640, 40, 11*	O		Isle of Wight Steam Railway	
W8	Freshwater, Newington	*W2, 32646, 46, 646*	A		Isle of Wight Steam Railway	GRN

B1

LB&SCR B1 Class 0-4-2 Gladstones



The LB&SCR B1 Class is a class of 0-4-2 express passenger steam locomotives. They were the last express passenger design of William Stroudley, and were a larger and improved version of his Richmond class of 1878. Thirty-six locomotives were turned out from Brighton railway works between 1882 and 1891 and were used for the heaviest London to Brighton express trains. All were named after politicians, men associated with the railway, or places served by the railway.

The locomotives were originally designated "Class B" together with the "Richmond Class" but were later designated B1 class by D. E. Marsh. The first of the class, 214 Gladstone, was preserved as a static exhibit thanks to the efforts of the Stephenson Locomotive Society and is the only ex LB&SCR tender locomotive to be preserved, as all the other preserved locomotives (ten A1/A1x "Terriers", one E1, and an E4) are tank engines.

Introduced	1882
Withdrawn	1933
Wheel Arrangement	0-4-2
Builder	Brighton Railway Works
Weight	39.3t
TE	14,155 lbf
Driving Wheel Dia	6ft 6in
Wheelbase	15ft 7in
Boiler Pressure	140 psi
Num Cylinders	2, inside
Cylinder Dimensions	18 1/4in x 26in

SR

Number	Name			Base	Livery
214	Gladstone	*B618, 618*	D	National Railway Museum	036

B4

LSWR B4 Class 0-4-0T



The LSWR B4 class is a class of 0-4-0 tank engines originally designed for station piloting and dock shunting. They were later used extensively in Southampton Docks for nearly half a century.

The locomotives were designed by William Adams. They were unusual in having inside Stephenson valve gear but outside cylinders and coal bunkers on the footplate inside the cab. The class were originally built with Adams's design of stovepipe chimney, although these were later replaced by a lipped version designed by Adams' successor, Dugald Drummond. Some examples also had cut away cabs to improve visibility. They were designed for shunting in locations with a sharp curves, such as the dockyard at Devonport and as pilots at the major stations.

Drummond designed a similar class of five locomotives in 1907, with a slightly smaller boiler and lipped chimney. These were delivered during 1908. These locomotives were originally regarded as a new class. However, Drummond's successor Robert Urie, considered them to be so similar to the originals, that they were merged with the B4 class in 1912.

Two examples of the class have survived into preservation.

Diagram	B4, D6, K14
Length	24ft 10 1/2in

SR

Height	12ft
Introduced	1891
Withdrawn	1963
Wheel Arrangement	0-4-0 T
Builder	LSWR Nine Elms
Weight	33.9t
TE	14,650 lbf
Driving Wheel Dia	3ft 9 3/4in
Wheelbase	7ft
Boiler Pressure	140 psi
Num Cylinders	2, outside
Valve Gear	Stephenson (inside)
Cylinder Dimensions	16 in × 22 in

Number	Name			Base	Livery
30096	Normandy	*E96, 96*	D	Bluebell Railway	BLK
30102	Granville	*E102, 102*	D	Bressingham Steam Museum	GRN

BB/WC

Battle of Britain / West Country Class 4-6-2



The SR West Country and Battle of Britain classes, collectively known as Light Pacifics or informally as Spam Cans, are air-smoothed 4-6-2 Pacific steam locomotives designed for the Southern Railway by its Chief Mechanical Engineer Oliver Bulleid. They were amongst

the first British designs to use welding in the construction process, and to use steel fireboxes, which meant that components could be more easily constructed under wartime austerity and post-war economy.

They were designed to be lighter in weight than their sister locomotives, the Merchant Navy class, to permit use on a wider variety of routes. They were a mixed-traffic design, and were used on all types of services, frequently far below their capabilities. A total of 110 locomotives were constructed between 1945 and 1950, named after West Country resorts or RAF and other subjects associated with the Battle of Britain.

Builder	Brighton / Eastleigh
Introduced	1945
Weight	87.4t
Power	7P
TE	31,000lbf
Driving Wheel Dia	6ft 2in
Wheel Arrangement	4-6-2
Boiler Pressure	280 psi
Cylinder Dimensions	16 3/8 x 24 inch
Num Cylinders	3
Length	67ft 7 3/4in
Withdrawn	1967
Wheelbase	35ft 6in
Valve Gear	Bulleid Chain

Number	Name			Note	Base	Livery
34007	Wadebridge	*21C107*	O	Currently being overhauled at Riley & Son	Riley & Son, Irwell	GRN
34023	Blackmore Vale	*21C123*	D		Bluebell Railway	GRN
34051	Winston Churchill	*21C151*	D		Locomotion - NRM Shildon	GRN
34067	Tangmere	*98767, 21C167*	A		West Coast Railway Co. Carnforth	GRN
34070	Manston	*98770, 21C170*	A		Mid Hants Railway	GRN
34072	257 Squadron	*98772*	A	Southern Locomotives Limited	Swanage Railway	GRN

SR						
34073	249 Squadron		O	spares donor for 34067	West Coast Railway Co. Carnforth	
34081	92 Squadron	*Royal Auxiliary Air Force, 34111*	A	Sometimes runs as Royal Auxiliary Air Force, 34111	East Lancashire Railway	GRN
34092	City of Wells	*98792*	A		East Lancashire Railway	GRN
34105	Swanage		O		Mid Hants Railway	GRN

Rebuilt WC

Rebuilt Battle of Britain / West Country Class 4-6-2



Due to problems with some of the new features, such as the Bulleid chain-driven valve gear, sixty locomotives were rebuilt by British Railways during the late 1950s. The results were similar to the rebuilt Merchant Navy class.

Introduced	1950
Wheel Arrangement	4-6-2
Power	7P
Driving Wheel Dia	6ft 2in
Wheelbase	35ft 6in
Boiler Pressure	250 psi
Num Cylinders	3
Valve Gear	Walschaerts
Cylinder Dimensions	16 3/8 x 24 inch

SR

Weight	92.6t
TE	27,720 lbf

Number	Name			Note	Base	Livery
21C127	Taw Valley	*98727, 34027, 70, Queen Elizabeth II*	A		Severn Valley Railway	BLK
34010	Sidmouth	*21C110, 34109*	O	to be restored as 34109 Sir Trafford Leigh-Mallory	Swanage Railway	
34016	Bodmin	*98716, 21C116*	O		West Coast Railway Co. Carnforth	
34028	Eddystone	*98730, 21C128*	A		Southall	GRN
34039	Boscastle	*21C139*	O		Great Central Railway	GRN
34046	Braunton	*98746, 34052, 21C146*	O	Running as 34052 "Lord Downing" during 2016, 17	Locomotive Services, Crewe	GRN
34053	Sir Keith Park	*21C153*	A		Spa Valley Railway	GRN
34058	Sir Frederick Pile	*21C158*	S		Hope Farm, Sellindge	
34059	Sir Archibald Sinclair	*21C159, 98759*	A		Bluebell Railway	GRN
34101	Hartland	*98701*	O		North Yorkshire Moors Railway	

C

SECR C class 0-6-0

The SECR C Class is a class of 0-6-0 steam locomotive, designed by Harry Wainwright and built between 1900 and 1908. They were designed for freight duties, although occasionally used for passenger trains. They operated over the lines of the railway in London and south-east England until the early 1960s. One example was rebuilt as an S Class saddle tank.

One example has been preserved.

Introduced	1900
Withdrawn	1962

SR

Wheel Arrangement	0-6-0
Builder	Various for SECR
Weight	44.5t
TE	19,520 lbf
Driving Wheel Dia	5ft 2in
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18 1/2 in x 26 in

Number			Base	Livery
31592	*A592, 1592, 592, DS239*	A	Bluebell Railway	SECR

D

SECR D class 4-4-0



The SECR D class is a class of 4-4-0 tender locomotives designed by Harry Wainwright for the SECR. Initially the D class was put to work on the Kent coast and Hastings services out of London. By the 1930s the largest allocation of D class 4-4-0s was at Gillingham depot in Kent but they had by now been reduced to secondary train duties and were now carrying the livery of the Southern Railway.

At the outbreak of World War II in 1939 some of the D class were placed into storage. Then in 1941 others were transferred to Nine Elms depot. A handful were based at Redhill on the Reading-Tonbridge cross-country line. In 1948 British Railways inherited 28 of the Wainwright 4-4-0s.

SR

Their final years saw them concentrated at Guildford in Surrey and the last of the D class, No.31075, was withdrawn from there in 1956. One example has been preserved.

Introduced	1901
Withdrawn	1956
Wheel Arrangement	4-4-0
Builder	Various for SECR
Weight	50.8t
TE	17,450 lbf
Driving Wheel Dia	6ft 8in
Boiler Pressure	175 psi
Num Cylinders	2, inside
Cylinder Dimensions	19 in × 26 in

Number			Base	Livery
737	*A31737, 131737, 31737*	D	National Railway Museum	SECR

E1

LB&SCR E1 class 0-6-0T



The LB&SCR E1 Class were 0-6-0T steam locomotives designed by William Stroudley in 1874 for short-distance goods and piloting duties. They were originally classified E, and generally known as "E-tanks"; They were reclassified E1 in the time of D. E. Marsh.

The first six locomotives of this useful and long-lived class were built at Brighton and appeared in traffic between September 1874 and March 1875. They performed well and further orders were placed at regular intervals until December 1891 when the class

consisted of eighty locomotives and were used throughout the LBSCR system, principally for goods and shunting, but occasionally for secondary passenger duties.

In 1884 Stroudley also built one example with a larger boiler and Gladstone-type cylinders with valves underneath to work on the steeply-graded lines between Eastbourne and Tunbridge Wells. This Special E-tank was withdrawn in 1922.

One has been preserved.

Length	32ft 4 1/2in
Introduced	1874
Withdrawn	1961
Wheel Arrangement	0-6-0 T
Builder	LBSCR Brighton Works
Weight	44.9t
TE	17,470 lbf
Boiler Pressure	160 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 in × 24 in

Number	Name			Base	Livery
110	Burgundy, Yarmouth	*B110, 32110*	D	Isle of Wight Steam Railway	BLK

E4

LB&SCR E4 class 0-6-2T



The LB&SCR E4 class is a class of 0-6-2T side tank steam locomotive designed by Robert Billinton. They were introduced in 1897 and were essentially a larger version of the E3 Class.

SR

They were powerful for their size and were stalwarts of local passenger, freight and branch work for more than fifty years.

They were so successful that they were more commonly assigned to passenger trains as opposed to freight work, which is what they were originally intended for. During World War I the Railway Operating Division borrowed several members of the class for work in France. All of them were returned to England in 1919.

Seventy-five members of the class were built, one has been preserved.

Length	35ft 3in
Introduced	1897
Withdrawn	1963
Wheel Arrangement	0-6-2 T
Builder	Brighton Railway Works
Weight	57.7t
TE	18,050 lbf
Driving Wheel Dia	5ft
Boiler Pressure	160 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 1/2 in × 26 in

Number	Name			Base	Livery
32473	Birch Grove	*B6880, 2473, 473*	D	Bluebell Railway	GRN

H

SECR H class 0-4-4T



The SECR H Class is a class of 0-4-4T steam locomotive originally designed for suburban passenger work, designed by Harry Wainwright in 1904. Most of the sixty-six members of the class were later equipped for push-pull working for use on rural branch lines.

The H class boiler design was found to be so successful that it was later used as a standard replacement boiler on the SECR R1 class, LCDR B1 class, LCDR B2 class, LCDR R class, SER O1 class, SECR Q1 class, and SER R1 class. The majority of the class replaced Q class locomotives on the London suburban services of the SER and remained on these duties until after they entered Southern Railway stock in 1923.

Two members of the class were withdrawn during the Second World War, but the remaining 64 entered British Railways stock in 1948. 45 of the survivors were equipped for push-pull train working between 1949 and 1960, and the class was increasingly used on motor-trains on rural branches. One has been preserved.

Builder	SECR Ashford Works
Introduced	1904
Weight	34.1t
Driving Wheel Dia	5ft 6in
Wheel Arrangement	0-4-4 T
Boiler Pressure	160 psi
Cylinder Dimensions	18 in × 26 in
Num Cylinders	2, inside

SR

Length	32ft 10 3/4in
Withdrawn	1964
TE	17,360 lbf

Number			Base	Livery
31263	*A263, 1263, 263*	A	Bluebell Railway	SECR

H2

LB&SCR H2 class 4-4-2



May 2025

MRG

The LB&SCR H2 class was a class of 4-4-2 steam locomotives for express passenger work. They were designed when D. E. Marsh was officially Locomotive Superintendent and were built at Brighton Works in 1911 and 1912. They were an immediate success and shared with the H1 class the London to Brighton express trains including the heavily loaded Pullman services the Brighton Limited, and the Southern Belle.

One member of the class was withdrawn in 1949, but the remainder continued in regular use until 1956. No. 32424 "Beachy Head" was the last survivor, it was withdrawn in April 1958, and none were preserved.

No examples of the H2 class were preserved, but on 29 October 2000 the Bluebell Railway announced its intention to reconstruct a replica of SR/BR period Beachy Head. Many surviving locomotive parts had been assembled including an ex-GNR 'Atlantic' boiler, and an ex-LB&SCR B4 class tender chassis. The boiler was tested around August 2018.

Introduced	1911

SR

Withdrawn	1958
Wheel Arrangement	4-4-2
Builder	LBSCR Brighton Works
Weight	70.4t
TE	20,840 lbf
Driving Wheel Dia	6ft 7 1/2in
Boiler Pressure	170 psi
Num Cylinders	2, outside
Cylinder Dimensions	21 in x 26 in

Number	Name		Base
32424	Beachy Head	A	Bluebell Railway

LN

Lord Nelson class 4-6-0



The Lord Nelson class is a type of 4-cylinder 4-6-0 steam locomotive designed for the Southern Railway by Richard Maunsell in 1926. They were intended for Continental boat trains between London and Dover harbour but were also later used for express passenger work to the South-West of England. Sixteen of them were constructed, representing the most powerful (although not the most successful) Southern 4-6-0 design. They were all named after famous admirals.

The class continued to operate with British Railways until withdrawn during 1961 and 1962. Only one example of the class – the first engine, Lord Nelson itself – has been saved from scrapping.

Length	69ft 9 3/4in
Introduced	1926

SR

Withdrawn	1962
Wheel Arrangement	4-6-0
Builder	Eastleigh Works
Weight	84.8t
TE	33,510 lbf
Driving Wheel Dia	6ft 7in
Boiler Pressure	220 psi
Num Cylinders	4, 2 inside, 2 outside
Cylinder Dimensions	16 1/2 in × 26 in

Number	Name			Base	Livery
850	Lord Nelson	*98750, E850, 30850*	A	Mid Hants Railway	GRN

M7

LSWR M7 class 0-4-4T



The LSWR M7 class is a class of 0-4-4T passenger tank locomotive built between 1897 and 1911. The class was designed by Dugald Drummond for use on the intensive London network of the LSWR and performed well in such tasks.

Because of their utility, 105 were built and the class went through several modifications over five production batches. For this reason, there were detail variations such as frame length. Many of the class were fitted with push-pull operation gear that enabled efficient use on branch line duties without the need to change to the other end of its train at the end of a journey.

Under LSWR and Southern Railway ownership they had been successful suburban passenger engines, although with the increased availability of newer, standard designs, many of the class were diagrammed to take on a new role as reliable branch line engines, especially in Southern England.

SR

Members of the class lasted in service until 1964, and two examples have survived into preservation.

Introduced	1897
Weight	61.2t
TE	19,755 lbf
Driving Wheel Dia	5ft 7
Wheel Arrangement	0-4-4 T
Boiler Pressure	175 psi
Cylinder Dimensions	18 1/4 in x 26 in
Num Cylinders	2, inside
Valve Gear	Stephenson
Length	38ft 8in
Withdrawn	1965
Builder	LWSR Nine Elms & Eastleigh

Number			Base	Livery
245	*E30245, 30245*	D	National Railway Museum	GRN
30053	*E53, 53, 98253*	O	North Norfolk Railway	BLK

MN

Merchant Navy class 4-6-2



The SR Merchant Navy class (originally known as the 21C1 class, and later informally known as Bulleid Pacifics, Spam Cans – which name was also applied to the Light Pacifics – or

Packets) is a class of air-smoothed Pacific steam locomotives designed for the Southern Railway by Oliver Bulleid. The Pacific design was chosen in preference to several others proposed by Bulleid. The first members of the class were constructed during the Second World War, and the last of the 30 locomotives in 1949.

Incorporating a number of new developments in British steam locomotive technology, the design of the Merchant Navy class was among the first to use welding in the construction process; this enabled easier fabrication of components during the austerity of the war and post-war economies.

Due to problems with some of the more novel features of Bulleid's design, all members of the class were modified by British Railways during the late 1950s, losing their air-smoothed casings in the process. The Merchant Navy class operated until the end of Southern steam in July 1967. A third of the class has survived and can be seen on heritage railways throughout Great Britain.

The Society restoring Merchant Navy class locomotive 35011 General Steam Navigation are working to retro convert the locomotive to its 1950s specification before the class were rebuilt into the more conventional form by British Railways. This includes restoring the iconic air smoothed casing along with Bulleid's oil bath encased valve gear incorporating chain drive.

Length	71ft 7in
Introduced	1941
Withdrawn	1967
Wheel Arrangement	4-6-2
Builder	Eastleigh Works
Weight	99.5t
TE	33,495 lbf
Max Speed	105 mph
Driving Wheel Dia	6ft 2in
Boiler Pressure	250 psi
Num Cylinders	3
Valve Gear	Walschaerts
Cylinder Dimensions	18 in × 24 in

Number	Name		Note	Base	Livery
35005	Canadian Pacific	*98805*	S	Mid Hants Railway	
35006	Peninsular & Oriental	*21C6*	O	Gloucestershire Warwickshire Steam Railway	GRN
35009	Shaw Savill	*21C9*	S	Riley & Son, Irwell	

SR

35010	Blue Star	*21C10*	D		Colne Valley Railway	GRN
35011	General Steam Navigation	*21C11*	R	work in progress to restore to unrebuilt condition with air smoothed casing etc	Vincent Engineering, Henstridge, Somerset	
35018	British India Line	*21C18*	A		West Coast Railway Co. Carnforth	GRN
35022	Holland-Amerika Line		S		Locomotive Services, Crewe	
35025	Brocklebank Line		R		Hope Farm, Sellindge	
35027	Port Line		O		East Lancashire Railway	
35028	Clan Line	*98828*	O	Merchant Navy Locomotive Preservation Society	VSOE Stewarts Lane	GRN
35029	Ellerman Lines		D	Sectioned	National Railway Museum	GRN

N

SECR N class 2-6-0



The SECR N class was a type of 2-6-0 steam locomotive designed in 1914 by Richard Maunsell for mixed-traffic duties on the SECR. Built between 1917 and 1934, it was the first non-GWR type to use and improve upon the basic design principles established by GWR Chief Mechanical Engineer George Jackson Churchward. The N class was based on the GWR 4300 Class design, improved with Midland Railway concepts.

The N class was mechanically similar to the SECR K class 2-6-4 passenger tank engine, also by Maunsell. It influenced future 2-6-0 development in Britain and provided the basis for the 3-cylinder N1 class of 1922. The class replaced obsolete 0-6-0s as part of the SECR's fleet standardisation, as they used parts interchangeable with those of other classes.

80 N class locomotives were built in three batches between the First and Second World Wars. 50 were assembled from kits of parts made at the Royal Arsenal, Woolwich, giving rise to the nickname of "Woolworths". They worked over most of the Southern network and the last was withdrawn in 1966. One N class locomotive has been preserved.

Builder	Southern Railway
Introduced	1917
Length	57ft 10in
Weight	105.3t
TE	26,035 lbf
Driving Wheel Dia	5ft 6in
Wheel Arrangement	2-6-0
Boiler Pressure	200 psi
Cylinder Dimensions	19 in × 28 in
Num Cylinders	2, outside

SR

Valve Gear	Walschaerts
Withdrawn	1966

Number	Name			Base	Livery
31874	"James"	*A874, 1874*	P	Swanage Railway	BLK

N15

LSWR N15 class 4-6-0 King Arthur



Dan Cardwell

The LSWR N15 class was a British 2–cylinder 4-6-0 express passenger steam locomotive designed by Robert Urie. The class has a complex build history spanning three sub-classes and eight years of construction from 1918 to 1927. The first batch of the class was constructed for the LSWR, where they hauled heavy express passenger trains to the south coast ports and further west to Exeter. After the Lord Nelsons, they were the second biggest 4-6-0 passenger locomotives on the Southern Railway. They could reach speeds of up to 90 mph.

Following the grouping of railway companies in 1923, the LSWR became part of the Southern and its publicity department gave the N15 locomotives names associated with Arthurian legend; the class hence becoming known as King Arthurs. The CME of the newly formed company, Richard Maunsell, modified the Urie locomotives in the light of operational experience and increased the class strength to 74 locomotives. Maunsell and his Chief Draughtsman James Clayton incorporated several improvements, notably to the steam circuit and valve gear.

The new locomotives were built over several batches at Eastleigh Works and Glasgow, leading to the nicknames of "Eastleigh Arthurs", "Scotch Arthurs" and Scotchmen in service.

SR

The class was subjected to smoke deflection experiments in 1926, becoming the first British class of steam locomotive to be fitted with smoke deflectors. Maunsell's successor, Oliver Bulleid, attempted to improve performance by altering exhaust arrangements.

The locomotives continued operating with British Railways until the end of 1962. One example has been preserved as part of the National Collection

Length	66ft 5 3/4in
Introduced	1918
Withdrawn	1962
Wheel Arrangement	4-6-0
Builder	SR Eastleigh Works & North British Locomotive Co.
Weight	82.2t
Max Speed	90 mph
Driving Wheel Dia	6ft 7in
Num Cylinders	2, outside

Number	Name			Base	Livery
777	Sir Lamiel	*30777, 98577*	O	Great Central Railway	GRN

O1

SECR O1 class 0-6-0



Spa Valley Railway, June 2023

MRG

The SECR O1 class 0-6-0 were rebuilt from the SER O class locomotives between 1900 and 1932.

The SER O Class were designed for freight work, and were the main freight engines of the SER, and later the SECR for a number of years. However, they were displaced by the more powerful C class locomotives following the amalgamation of the SER and the LCDR in 1899.

This relegated the class to working on the numerous branch lines in Kent, on both passenger and freight work. The majority were withdrawn before the outbreak of the Second World War in 1939, and those that remained were slowly withdrawn from nationalisation onwards.

The death knell for the final few members of the class came with the Modernisation Plan of 1955, which closed down many of the branch lines they continued to serve in Kent. All members of the class had been withdrawn by 1962, and only one member of the class has survived scrapping.

Introduced	1878
Withdrawn	1961
Wheel Arrangement	0-6-0
Builder	Ashford Works & Sharp Stewart & Co.
Weight	41.7t
TE	17,300 lbf
Driving Wheel Dia	5ft 2in

SR

Boiler Pressure	150 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	18 in × 26 in

Number			Base	Livery
31065	*A65, 1065, 65*	D	Bluebell Railway	SECR

O2

LSWR O2 class 0-4-4T



The LSWR O2 class is a class of 0-4-4T steam locomotive designed for the LWSR by William Adams. Sixty were constructed during the late nineteenth century. They were also the last steam engines to work on the Isle of Wight, with the final two being withdrawn in 1967.

A total of 23 locomotives were sent over to the Isle of Wight between 1923 and 1949, two examples, numbers W24 Calbourne and W31 Chale, were retained to work engineers' trains during the electrification of the surviving Ryde–Shanklin line. Both were withdrawn on completion of the electrification project in March 1967. These two locomotives, survived long enough to enter preservation.

Builder	LSWR Nine Elms
Introduced	1889
Weight	49.18t
TE	17,235lbf
Driving Wheel Dia	4ft 10in
Wheel Arrangement	0-4-4 T

SR

Boiler Pressure	160 psi
Cylinder Dimensions	17 1/2in × 24 in
Num Cylinders	2, inside
Valve Gear	Stephenson
Length	30ft 8 1/2in
Withdrawn	1967

Number	Name			Base	Livery
W24	Calbourne	*E209, 209, 24*	A	Isle of Wight Steam Railway	BLK

P

SECR P class 0-6-0T



The SECR P class is a class of 0-6-0T steam locomotive designed by Harry Wainwright.

They were inspired by, and loosely based on, the more successful LB&SCR A1 class "Terriers" and 8 were built in 1909 and 1910. They were originally intended for lightweight passenger trains, to replace underpowered steam railmotors. Certain cost-saving design compromises had been made, compared to the Terrier design, and the P class were found to be underpowered, having only 73% of the Terrier's tractive effort.

The P class were later re-allocated to shunting and station pilot duties.

All eight locomotives passed into Southern Railway ownership at The Grouping in 1923, and into British Railways ownership at Nationalisation in 1948. Withdrawals took place between 1955 and 1961, but four examples have been preserved.

SR

Introduced	1909
Withdrawn	1961
Wheel Arrangement	0-6-0 T
Builder	SECR Ashford Works
Weight	29t
TE	7,810 lbf
Driving Wheel Dia	3ft 9 1/8in
Wheelbase	11ft
Boiler Pressure	160 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	12in x 18in

Number	Name			Base	Livery
31027		*A27, 1027, 27*	O	Bluebell Railway	
31178	Pioneer II	*178, 1178*	S	One:One Collection	SECR
31323		*A323, 1323, 323*	A	Bluebell Railway	SECR
31556		*A556, 1556, 753*	A	Kent & East Sussex Railway	055

Q

SR Q class 0-6-0



Dan Cardwell

The Q Class is a type of 0-6-0 steam locomotive designed by Richard Maunsell of the Southern Railway and constructed immediately prior to the Second World War for use on medium-distance freight trains throughout the network.

Twenty locomotives were built by Maunsell's successor, Oliver Bulleid, in 1938. The design was relatively old-fashioned, and the class was soon afterwards eclipsed by Bulleid's own more powerful Q1 class. Nevertheless, the locomotives performed adequately and reliably on the tasks for which they had been designed, until their withdrawal in 1965.

Only one has survived into preservation.

Length	53ft 9 1/2in
Width	8ft 4in
Height	12ft 10in
Introduced	1938
Withdrawn	1965
Wheel Arrangement	0-6-0
Builder	SR Eastleigh Works
Weight	50.3t
TE	26,160 lbf
Driving Wheel Dia	5ft 1in
Boiler Pressure	200 psi
Num Cylinders	2, inside
Cylinder Dimensions	19 in × 26 in

SR

Number			Note	Base	Livery
30541	*541*	A	The Maunsell Locomotive Society	Leaky Finders Ltd	BLK

Q1

SR Q1 class 0-6-0



The SR Q1 class is a type of austerity steam locomotive constructed during the Second World War. The class was designed by Oliver Bulleid for use on the intensive freight turns experienced during wartime on the Southern Railway network. A total of 40 locomotives were built. Bulleid incorporated many innovations and weight-saving concepts to produce a highly functional design.

The highly unusual and controversial design represents the ultimate development of the British 0-6-0 freight engine, capable of hauling trains that were usually allocated to much larger locomotives on other railways. Nicknames for the class included "Ugly Ducklings", "Coffee Pots", "Charlies", "Biscuit Tins", "Biscuit Barrels", "Clockworks" and "Frankensteins".

The class lasted in service until July 1966, and the first member of the class, number C1, has been preserved by the National Railway Museum.

Length	54ft 10 1/2in
Introduced	1942
Withdrawn	1966
Wheel Arrangement	0-6-0
Builder	Brighton / Eastleigh
Weight	52.1t
TE	30,080 lbf
Driving Wheel Dia	5ft 1in
Boiler Pressure	230 psi

SR

Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 26 in

Number			Base	Livery
C1	*33001*	D	National Railway Museum	BLK

S15 (Urie)

LSWR S15 class 4-6-0



The LSWR S15 class is a British 2-cylinder 4-6-0 freight steam locomotive designed by Robert W. Urie, based on his H15 class and N15 class locomotives. The class had a complex build history, spanning several years of construction from 1920 to 1936.

The first examples were constructed for the LSWR, where they hauled freight trains to the south coast ports and further west to Exeter, as well as occasional passenger work in conjunction with their larger-wheeled N15 class counterparts. The outline was made during the First World War, and incorporated lessons learned from the operation of his H15 class, a design that was to provide the basis for future standardisation on the LSWR.

To economise on maintenance, the S15 class had interchangeable components that could be used on a similar design, the N15 class passenger locomotive, which had the same overall appearance. Details such as the boiler, the two-cylinders and valve gear were standardised between the classes, although a taper boiler was used on the S15 and N15 classes. The only other major difference was the smaller diameter of the driving wheels. Smaller diameter wheels gave better traction, essential for a fast freight locomotive.

Urie retired as Locomotive Superintendent when the LSWR was amalgamated into the Southern Railway in 1923. Richard Maunsell was given the newly created post of CME to the Southern Railway and decided to revise the cylinder arrangement of the locomotive. In

doing so, he delayed the construction of further locomotives until the modifications had been made.

Two Urie S15's have been preserved.

Length	65ft 6 3/4in
Introduced	1920
Withdrawn	1964
Wheel Arrangement	4-6-0
Builder	Eastleigh Works
Weight	138.2t
TE	28,200 lbf
Driving Wheel Dia	5ft 7in
Boiler Pressure	180 psi
Num Cylinders	2, outside
Valve Gear	Walschaerts
Cylinder Dimensions	21 in × 28 in

Number			Base	Livery
30499	*E499, 499*	O	Mid Hants Railway	
30506	*E506, 506*	A	Mid Hants Railway	BLK

S15 (Maunsell)

SR S15 class 4-6-0



The LSWR S15 class is a British 2-cylinder 4-6-0 freight steam locomotive designed by Robert W. Urie, based on his H15 class and N15 class locomotives. The class had a complex build history, spanning several years of construction from 1920 to 1936.

Maunsell's modifications included increasing the boiler pressure to 200 psi, and the reduction of the cylinder bore by half an inch. The footplate was also modified for operation on the Southern's new composite loading gauge. Other modifications included the lengthening of valve travel and fitting larger outside steam pipes to streamline the flow of steam into the cylinders.

Fifteen locomotives of this revised design were built in 1927, and some were given 4,000-imperial-gallon six-wheeled tenders for use on the Southern Railway's Central section. This allowed the locomotive to be turned on the shorter turntables found on this part of the network. From new, the rest of the class was equipped with the Urie 5,000-imperial-gallon eight-wheel bogie tender, which allowed the class to operate on the extended freight routes of the Southern Railway's Western section.

The standardisation measures undertaken by both Urie and Maunsell were soon vindicated by the fact that tenders and other parts were swapped with those of other classes on the Southern Railway when locomotives were under overhaul.

A third batch was ordered in 1931, coinciding with a downturn in the volume of freight due to the Great Depression. This meant that the last of the S15 class was not completed until 1936, although weight-saving modifications were undertaken to this batch. A final modification was also applied to the class at this time, when all locomotives were equipped with smoke deflectors to improve visibility from the footplate when travelling at speed. This modification was a feature that became common to most Maunsell-influenced designs.

Four have been preserved and an additional one, no. 841 has been cannibalised to keep no. 825 going.

Builder	Eastleigh Works
Introduced	1927
TE	29,860 lbf
Driving Wheel Dia	5ft 7in
Wheel Arrangement	4-6-0
Boiler Pressure	200 psi
Cylinder Dimensions	20 1/2 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	65ft 6 3/4in
Withdrawn	1965
Weight	137.8t

Number	Name			Note	Base	Livery
30825		*98641, 825*	A	restored using components from 30841	North Yorkshire Moors Railway	GRN

SR

30828	Harry A Frith	*98628, 828*	O	Mid Hants Railway
30830		*830*	R	North Yorkshire Moors Railway
30841		*841*	S	North Yorkshire Moors Railway
30847		*847*	O	Bluebell Railway

T3

LWSR T3 class 4-4-0



March 2025

MRG

The LSWR T3 class was a class of express passenger 4-4-0 steam locomotives designed for the LSWR by William Adams. Twenty were constructed between 1892–1893. The class were numbered 557–576 and had been intended as a variant of the X2 class with slightly smaller driving wheels. In reality, the coupled wheelbase was lengthened by 6 inches and the locomotive was fitted with a deep firebox 6 feet 10 inches long – the largest firebox of any of Adams' designs - with a 19¾ square foot grate area.

All passed to the Southern Railway at the grouping in 1923. Withdrawals started in 1930, and by the end of 1933 only three remained. No. 557 went in 1936, 571 in 1943, and the last, 563 was retired in August 1945 and set aside for preservation, at which point it had run 1.5 million miles. From May to October 2011, it was in Toronto, Ontario, on loan for use in a theatrical production of The Railway Children at Roundhouse Park, a role it reprised from December 2014 to January 2017 when the production was staged at King's Cross, London.

SR

Length	54ft 2 3/8in
Height	13ft 2 3/4in
Introduced	1892
Withdrawn	1945
Wheel Arrangement	4-4-0
Builder	LWSR Nine Elms
Weight	49.3t
TE	17,673 lbf
Driving Wheel Dia	6ft 7in
Boiler Pressure	175 psi
Num Cylinders	2, outside
Cylinder Dimensions	19 in × 26 in

Number			Base	Livery
563	*E563, 563*	A	Swanage Railway	073

T9

LSWR T9 class 4-4-0



The LSWR T9 class was a class of 66 4-4-0 steam locomotive designed for express passenger work by Dugald Drummond and introduced to services on the LSWR in 1899. One example has been preserved after British Railways ownership. They were given the nickname of "Greyhounds" due to their speed, up to 85 miles per hour, and reliability.

Intended for express passenger work in South-West England, 66 were eventually built and saw several improvements throughout their service careers. The class operated until 1963 when the last example, No. 30120, was withdrawn. 30120 was preserved by the National Railway Museum.

Length	63ft 9in

SR

Introduced	1899
Withdrawn	1963
Wheel Arrangement	4-4-0
Builder	LSWR Nine Elms & Dübs & Co.
Weight	46.9t
TE	17,670 lbf
Max Speed	85 mph
Driving Wheel Dia	6ft 7in
Boiler Pressure	175 psi
Num Cylinders	2, inside
Valve Gear	Stephenson
Cylinder Dimensions	19 in × 26 in

Number			Base	Livery
30120	*E120, 120*	P	Swanage Railway	BLK

U

SR U class 2-6-0



The SR U class are 2-6-0 steam locomotives designed by Richard Maunsell for passenger duties on the Southern Railway. The class represented the penultimate stage in the development of the Southern Railway's 2-6-0 "family", which improved upon the basic principles established by GWR CME George Jackson Churchward for GWR locomotives. The U class design drew from experience with the GWR 4300s and N classes, improved by applying Midland Railway ideas to the design, enabling the SECR to influence development of the 2-6-0 in Britain.

SR

The U class was designed in the mid-1920s for production at a time when more obsolete 4-4-0 locomotives were withdrawn and derived from Maunsell's earlier SECR K class 2-6-4 tank locomotives. The first 20 members of the U class were rebuilds of the K class locomotives. A further 20 U class locomotives were built in 1928 to fill the gap in cross-country and semi-fast express passenger services after the withdrawal of the K class. The design also continued the standardisation of the Southern Railway locomotive fleet by using parts designed to be interchangeable with other Maunsell-designed classes.

A total of 50 locomotives were built over three batches between 1928 and 1931, and the design formed the basis for the 3-cylinder U1 class of 1928. They were able to operate over most of the Southern Railway network, gaining the nickname "U-boats" after the submarine warfare of the First World War, and continued to operate with BR. The class saw continuous use until 1966, when all members of the U class were withdrawn from service.

Four U class locomotives have been preserved on two heritage railways in the south of England.

Builder	Ashford, Brighton and Eastleigh Works
Introduced	1928
TE	23,866 lbf
Driving Wheel Dia	6ft
Wheel Arrangement	2-6-0
Boiler Pressure	200 psi
Cylinder Dimensions	19 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	57ft 10in
Withdrawn	1966
Weight	112.5t

Number			Base	Livery
31618	*A618, 1618*	D	Bluebell Railway	BLK
31625	*98426, A625, 1625*	O	Swanage Railway	
31638	*92838, A638, 1638*	A	Bluebell Railway	GRN
31806	*A806, 196*	S	Swanage Railway	BLK

USA

SR USA class 0-6-0T

The SR USA class are some ex-United States Army Transportation Corps S100 Class steam locomotives purchased and adapted by the Southern Railway (SR) after the end of the Second World War to replace the LSWR B4 class then working in Southampton Docks. SR staff nicknamed them "Yank Tanks".

The United States Army Transportation Corps built 382 S100 Class 0-6-0 tank engines for use in the Second World War. They were shipped to the British War Department in 1943 and stored awaiting the invasion of Mainland Europe. Most went overseas but some remained in store.

By 1946 the SR needed either to renew or replace the ageing B4, D1 and E1 class tanks used in Southampton Docks, but Eastleigh Works was not in a position to do so in a timely manner or at an economic price. The replacement locomotives would need to have a short wheelbase to negotiate the tight curves found in the dockyard, but also be able to haul heavy goods trains as well as full-length passenger trains in the harbour area. Oliver Bulleid therefore inspected the surplus War Department tank locomotives. The Hunslet Austerity 0-6-0ST locomotives stored at the Longmoor Military Railway proved to be unsuitable for dock work because of their 11 ft wheelbase and inside cylinders, and also many of the survivors were in poor condition. However, the S100s stored at Newbury Racecourse had a 10 ft wheelbase, outside cylinders and had hardly been used.

Bulleid therefore took Vulcan-built locomotive WD4236 on approval in May 1946 and tested it thoroughly over the next few months. When it was found to be suitable, this locomotive and a further 13 were purchased in 1947 for £2500 each and purchased another to provide spare parts. Thus, the thirteen further locomotives entered traffic between April and November 1947 as soon as they had been adapted.

Two JŽ class 62 locomotives built by the former Yugoslav Railways to an almost identical design have been acquired for use at the Shillingstone Railway Project and given British liveries. There are minor technical differences between these and the USA tanks. 30075 (formerly 62-669 built 1960- Undergoing overhaul) & 30076 (formerly 62-521 built 1954- Stored)

Builder	Vulcan, PA
Introduced	1942
Weight	47.2t
TE	21,630 lbf
Driving Wheel Dia	4ft 7 1/5in
Wheel Arrangement	0-6-0T
Boiler Pressure	210 psi
Cylinder Dimensions	16 1/2 in × 24 in

SR

Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	29ft 8in
Withdrawn	1967

Number	Name			Note	Base	Livery
30064		*64, 4432, 1959*	S		Southall	064
30065	Maunsell	*65, 4441*	A		Kent & East Sussex Railway	BLK
30070	Wainwright	*70, DS238, 4433*	S		Kent & East Sussex Railway	
30072		*72, 98372, 4446*	D		Ribble Steam Railway	KWB
30075		*62-669, 669*	O	Yugoslavian class 62 0-6-0T	Plym Valley Railway	BLK
30076		*62-521, 521*	D	Yugoslavian class 62 0-6-0T	North Dorset Railway	BLK

V

SR V class 4-4-0 Schools



The SR V class, more commonly known as the Schools class, is a class of steam locomotive designed by Richard Maunsell for the Southern Railway. The class was a cut down version of his Lord Nelson class but also incorporated components from Urie and Maunsell's

SR

LSWR/SR King Arthur class. It was the last locomotive in Britain to be designed with a 4-4-0 wheel arrangement and was the most powerful class of 4-4-0 ever produced in Europe.

All 40 of the class were named after English public schools and were designed to provide a powerful class of intermediate express passenger locomotive on semi-fast services for lines which could cope with high axle loads but some of which had short turntables.

The class operated until 1961 when mass withdrawals took place, and all had gone by December 1962. Three examples are now preserved on heritage railways in Britain.

Length	58ft 9 3/4in
Width	8ft 6 1/2in
Height	13ft
Introduced	1930
Withdrawn	1962
Wheel Arrangement	4-4-0
Builder	Eastleigh Works
Weight	68.2t
TE	25,130 lbf
Driving Wheel Dia	95 mph
Boiler Pressure	220 psi
Num Cylinders	3
Cylinder Dimensions	16 1/2 in × 26 in

Number	Name			Note	Base	Livery
30925	Cheltenham	*98526, 925*	D		National Railway Museum	GRN
30926	Repton	*926, 98526*	O		North Yorkshire Moors Railway	GRN
30928	Stowe	*928*	O	Bluebell Railway	Buckinghamshire Railway Centre	GRN

WC Shunter

Waterloo & City Shunter



Dan Cardwell

Siemens Brothers were contracted by the LSWR to build a small electric shunter for use on the self-contained underground line. 75S as it was numbered by the Southern Railway, spent all of its working life underground. The locomotive was used for the shunting of Waterloo & City Stock and also hauling wagonloads of coal which had been bought down the Armstrong Lift up the line for the power station.

System	750V DC 3rd Rail
Introduced	1898
Withdrawn	1969
Wheel Arrangement	Bo
Builder	Siemens Brothers of London
Length	16ft 6in
Width	7ft 3/4in
Power	120hp
Transmission	2 Siemens traction motors (530-600v DC third rail)
Brakes	Air

Number			Base
75	*75S, D75S*	D	Locomotion - NRM Shildon

WD

S160

WD S160 2-8-0



The United States Army Transportation Corps S160 Class is a class of 2-8-0 Consolidation steam locomotive, designed for heavy freight work in Europe during World War II. A total of 2,120 were built and they worked on railroads across much of the world, including Africa, Asia, all of Europe and South America.

800 locomotives were constructed in 1942/3 in 13 batches and shipped to South Wales and dispatched from the GWR locomotive depot at Newport, Ebbw Junction, the first 43 locomotives were transferred to the LNER Doncaster Works for completion, and later running in over the East Coast Main Line. This started a pattern whereby each of the four British railway companies eventually deployed a total of 400 S160's under the guise of "running in," but factually replacing damaged stock and increasing the capacity of the British railway system to allow for shipping of military pre-invasion equipment and troops.

The eventual deployment of S160's were: 174 to the GWR 168 to the LNER 50 to the LMS Railway and 6 to the SR. The second batch of 400 S160's were prepared for storage by USATC personnel at the Great Western's Ebbw Junction locomotive depot in the immediate run-up to D-Day. After the D-Day invasion of Normandy, the locomotives deployed across Britain again began to be collected and be refurbished at Ebbw Junction in preparation for shipment to Europe.

Several survive, we only list those that have returned to the UK in this list.

WD

Builder	American Locomotive Company, Baldwin Locomotive Works, Lima Locomotive Works
Introduced	1942
TE	31,492 lbf
Driving Wheel Dia	4ft 9in
Wheel Arrangement	2-8-0
Boiler Pressure	225 psi
Cylinder Dimensions	19 in × 26 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	61ft
Weight	73.03t
Wheelbase	51ft 7 3/4in

Number	Name			Base	Livery
1631		*411.388, 70284*	S	Reid Freight Services, Cockshute Sidings	
2138		*411.009*	Z		
2253	OMAHA	*Tr203-288, 69496, 98853*	A	North Yorkshire Moors Railway	Deep Red
2364		*411.337*	Z		
3278	Franklin D Roosevelt	*736.073, 575*	O	Churnet Valley Railway	
5197		*KD6.463*	A	Churnet Valley Railway	BLK
5820		*Tr203-474*	A	Keighley & Worth Valley Railway	USA
6046		*411.144*	A	Chinnor & Princes Risborough Railway	BLK

WD 0-6-0

War department 'Austerity' 0-6-0ST



The Hunslet Austerity 0-6-0ST is a class of steam locomotive designed by Hunslet Engine Company for shunting. The class became the standard British shunting locomotive during the Second World War, and production continued until 1964 at various locomotive manufacturers.

At the outbreak of the Second World War, the WD had initially chosen the LMS 'Jinty' 3F 0-6-0T as its standard shunting locomotive but was persuaded by Hunslet that a simplified version of their more modern 50550 design would be more suitable. The first locomotive was completed at their Leeds works at the start of 1943.

Hunslet subcontracted some of the construction to Andrew Barclay Sons & Co., W. G. Bagnall, Hudswell Clarke, Robert Stephenson and Hawthorns and the Vulcan Foundry in order to meet delivery requirements. After D-Day, they were used on Continental Europe and in North Africa, as well as at docks and military sites in Britain.

A total of 377 had been built for the WD by 1947 When the end of the war reduced the need for locomotives, the military started to review its fleet: 90 locomotives were kept by the military for use on their railways, 75 locomotives were sold to the LNER and classified as J94, 27 that had been loaned to Nederlandse Spoorwegen were sold to that company in 1947, becoming the NS 8800 class, 11 were loaned to the Nederlandsche Staatsmijnen, who bought 9 of them. Others were sold for industrial use.

As the final WD locomotives were being delivered, the NCB was placing orders for identical locomotives to be used at their collieries. Between 1948 and 1964, 77 new "Austerity" locomotives were built for the NCB. A further fourteen engines were ordered in 1952 by the British Army to supplement its 90 existing engines. The Yorkshire Engine Company also

built eight locomotives to this design in 1954 for use in ironstone quarries and at Scunthorpe Steelworks.

70 Austerities have been preserved on heritage railways, many in working order. Several have been painted as LNER Class J94s to represent mainline rather than industrial use.

Introduced	1943
Weight	48.25t
TE	23,870 lbf
Driving Wheel Dia	4ft 3in
Wheel Arrangement	0-6-0ST
Boiler Pressure	170 psi
Num Cylinders	2, inside
Valve Gear	Stephenson, Slide valve
Length	30ft 4in
Withdrawn	1984
Builder	Various
Wheelbase	11ft
Cylinder Dimensions	18 in × 26 in

Number	Name			Note	Base	Livery
132	Sapper	*3163, 75113, 3885, 68032*	P	0-6-0ST Road & Rail Steam Services. On loan from the East Lancs Railway	Kent & East Sussex Railway	GRE
152	Rennes	*8, 7139, 75189*	A	0-6-0ST	Dean Forest Railway	BLR
168	Lord Phil	*2868, 6, 9, 75019, 3883, 68012*	P	0-6-0ST Grinsty Holdings Ltd	Midland Railway - Butterley	GRE
190		*90, 3790*	A	0-6-0ST	Colne Valley Railway	GRE
191	Holman F Stephens	*23, 91, Black Knight, 3791*	S	0-6-0ST	Kent & East Sussex Railway	GRE
192	Waggoner	*92, 3792*	O	0-6-0ST	Isle of Wight Steam Railway	BLUE
193	Shropshire	*39, 3793*	R	0-6-0ST	Ribble Steam Railway	
194	Cumbria	*94, 3794, 10*	A	0-6-0ST	Embsay & Bolton Abbey Steam Railway	MAR

WD						
197	Northam	*25, 3797, Sapper*	A	0-6-0ST	Lakeside & Haverthwaite Railway	BLUE
198	Royal Engineer	*98, 3798*	O	0-6-0ST	Isle of Wight Steam Railway	GRE
200	Rolvenden	*24, 3800*	A	0-6-0ST	Kent & East Sussex Railway	LMRB
2890	Douglas	*75041, 107, 10, 3882*	O	Rebuilt as 0-6-0 tender loco "Douglas"	East Lancashire Railway	BLK
68030	Josiah Wedgewood	*3777*	O	0-6-0ST name not carried	Hopetown Darlington	
68067	Robert	*1752, 75091*	A	0-6-0ST	Great Central Railway	BLK
68077		*8077, 71466, 14, 2215*	S	0-6-0ST	Spa Valley Railway	
68078		*98478, 8078, 71463, 2212*	R	0-6-0ST	Hope Farm, Sellindge	
71480	Fred	*7289*	R	0-6-0ST	Battlefield Line	
71499	Harry	*1776*	R	0-6-0ST	Bryn Engineering, Blackrod	
71505	Brussels	*118, 1782*	S	0-6-0ST	Keighley & Worth Valley Railway	
71515	Mech. Navvies Ltd.	*68005, 7169*	A	0-6-0ST	Pontypool & Blaenavon Railway	RED
71516	Welsh Guardsman	*7170*	P	0-6-0ST	Severn Valley Railway	
71529	Earl David	*15, 2183*	P	0-6-0ST	Peak Rail	WPR
75006		*68081, 2855*	O	0-6-0ST	Nene Valley Railway	
75008	Swiftsure	*2857*	P	0-6-0ST	Kent & East Sussex Railway	BLUE
75015		*48, 2864, 9103*	S	0-6-0ST	Aln Valley Railway	
75030	Diana	*1, 2879*	A	0-6-0ST	Caledonian Railway	RED
75031		*101, 17, 2880*	R	0-6-0ST	Locomotive Maintenance Services, Loughborough	

WD

75050	Norman	*68005, 7086, 35, 27, 5050, 76050*	S	0-6-0ST	Hope Farm, Sellindge	GRE
75061	Cairngorm	*9, 7097*	S	0-6-0ST	Strathspey Railway	
75062		*49, 9103, 9, 7098*	A	0-6-0ST	Tanfield Railway	GRE
75105	Walkden	*3155*	A	0-6-0ST	Spa Valley Railway	GRE
75118	Wheldale	*134, 3168, S134*	O	0-6-0ST	Embsay & Bolton Abbey Steam Railway	RED
75130	Antwerp	*3180*	O	0-6-0ST	Hope Farm, Sellindge	
75133	King Feisal of Iraq	*138, 3183*	O	0-6-0ST	Flour Mill Workshop, Bream	
75141	Quarryman	*68006, 139, 3192, 3888*	O	0-6-0ST	Barrow Hill	
75142	NORFOLK REGIMENT	*68012, 140, 3193, 3887, 68018, Blackie*	P	0-6-0ST Norfolk Heritage Steam Railway Ltd - running as long scrapped classmate 68018	Nene Valley Railway	BLK
75158	The Duke	*68012, 144, 2746*	P	0-6-0ST	Ecclesbourne Valley Railway	RED
75161		*6, 2749*	A	0-6-0ST	Caledonian Railway	BLK
75170		*2758, 3846*	D	0-6-0ST some parts on Hunslet 3844, carries Hunslet 3846 plate	Cefn Coed Colliery Museum	GRE
75171		*147, WPR16, 2759, 16*	A	0-6-0ST	Caledonian Railway	RED
75178		*2766*	A	0-6-0ST	Bodmin & Wenford Railway	
75186	Royal Pioneer	*68013, 150, 7136*	O	0-6-0ST	Peak Rail	

WD

75196	Errol Lonsdale	*68011, 196, 3796*	E	0-6-0ST	Stoomcentrum, Maldegem, Belgium	035
75254		*175, 68007, 2777, 7*	A	0-6-0ST	Bo'ness & Kinneil Railway	BLK
75256	Gamma	*20, 2779*	S	0-6-0ST	Tanfield Railway	BLK
75282	Haulwen	*181, 5272, Insein*	O	0-6-0ST	Gwili Railway	GRE
75319		*72, 5319, 2235, 5309*	O	0-6-0ST	Locomotive Maintenance Services, Loughborough	BLK

WD 2-8-0

War Department 'Austerity' 2-8-0



No-longer-here from Pixabay

The War Department (WD) "Austerity" 2-8-0 is a type of heavy freight steam locomotive that was introduced in 1943 for war service. A total of 935 were built, making this one of the most-produced classes of British steam locomotive. They were nicknamed Ozzies by the railwaymen.

The Austerity 2-8-0 was based on the LMS Class 8F, which until that point had been the government's standard design. Various modifications were made to the 8F design by Robert Riddles in order to prioritise low cost over design life.

After the end of the conflict, the War Department disposed of 930 locomotives (Two engines being retained by the War Department and three being scrapped). 200 were sold to the LNER, which classified them as "Class O7" and numbered them 3000–3199. In 1948, 533 more were purchased by the British Transport Commission. With the formation of British Railways, the 733 locomotives were renumbered into the 90000–90732 series.

One WD 2-8-0 has survived. Vulcan Foundry works No. 5200 was repatriated from Sweden to the Keighley and Worth Valley Railway. It was SJ Class G11 number 1931. It was overhauled to its original condition, finished in 2007, which involved building a new cab and tender, to become BR "No. 90733". After test runs, 90733 ran its first passenger train on Monday 23 July 2007.

Builder	North British/Vulcan
Introduced	1943
Driving Wheel Dia	4ft 8 1/2in
Wheel Arrangement	2-8-0
Boiler Pressure	225 psi
Cylinder Dimensions	19 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	63ft 6in
Weight	71.4t
TE	34,215 lbf

Number			Base	Livery
79257	*1931, 4464, 90733*	O	Keighley & Worth Valley Railway	BLK

WD 2-10-0

War Department 'Austerity' 2-10-0



The War Department (WD) "Austerity" 2-10-0 is a type of heavy freight steam locomotive that was introduced during the Second World War in 1943. The Austerity 2-10-0 was based on the Austerity 2-8-0 and was designed to have interchangeable parts by R.A. Riddles. It had the same power output as the 2-8-0 but a lighter axle load, making it suitable for secondary lines.

Two batches were built by the North British Locomotive Company, the first batch of 100 introduced in 1943/1944 and the second batch of 50 in 1945. 20 of the first batch were sent to the Middle East. During running-in they worked in Britain, but their length made them unsuitable. Most saw service with the British Army in France after D-Day in the drive towards the Siegfried Line.

After the war, BR bought twenty-five locomotives. These were initially numbered 73774-73798 but later re-numbered 90750-74. They were mostly operated by BR's Scottish Region on heavy freight trains and were all withdrawn between 1961 and 1962.

LMR 600 Gordon has survived and has been steamed on the Severn Valley Railway. Two more have been repatriated from Greece. One has been numbered 90775, one higher than the last BR engine, and is operational on North Norfolk Railway where it has now been renamed The Royal Norfolk Regiment. The other is WD No. (7)3672 which has been named Dame Vera Lynn. The loco is currently being overhaul at Grosmont on the NYMR. The 4th one in preservation WD 73755 (NS 5085) survives in the Dutch Railway Museum (Nederlands Spoorwegmuseum) in Utrecht. It carries the nameplate Longmoor, after the Royal Engineers base at Longmoor, with the coat of arms of the Royal Engineers above.

Four locomotives remain in various states in Greece with Λβ962 and Λβ964 operating mainline tours on the Drama to Xanthi line. 2 other locomotives remain in poor states stored awaiting further use. None of the 4 are included here.

WD

Builder	North British
Introduced	1943
Power	8F
Driving Wheel Dia	4ft 8 1/2in
Wheel Arrangement	2-10-0
Boiler Pressure	225 psi
Cylinder Dimensions	19 in × 28 in
Num Cylinders	2, outside
Valve Gear	Walschaerts
Length	67ft 6 1/4in
Weight	79.6t
TE	34,215 lbf

Number	Name			Base	Livery
3651	Gordon	*73651, 600*	D	Severn Valley Railway	LMRB
3652	The Royal Norfolk Regiment	*90775, Lb951, 73652*	A	North Norfolk Railway	BLK
3672	Dame Vera Lynn	*73672, Lb960*	O	North Yorkshire Moors Railway	
3755	Longmoor	*73755, 5085*	E	Spoorwegmuseum, Utrecht, Netherlands	

London Underground

1938 Stock



The London Underground 1938 Stock was a London Underground tube stock design. A total of 1,121 cars were built by Metro-Cammell and Birmingham RC&W. An additional 173 cars were added to the fleet by the end of 1953, comprising 91 new builds (the 1949 Tube Stock), 76 conversions from Pre-1938 Tube Stock or 1935 Tube Stock, and six unconverted cars of 1935 Tube Stock, and the stock was used on the London Underground until 1988. During their long lives they worked on the Bakerloo, Northern, Piccadilly, East London and Central lines. Ten sets were refurbished and ran on the Isle of Wight as Class 483, making them the oldest passenger rolling stock operating timetabled services on the National Rail network at the time of their withdrawal in January 2021

When it was introduced, the 1938-Stock was the most advanced electric tube train in the world. All motors and electrical equipment were housed beneath the floor and despite experiments with streamlining, the new trains were given flat fronts. Both these features allowed greater numbers of passengers to be carried in each car. The last 38-stock retired from service in 1988, six weeks short of 50 years' service.

Length	15600mm
Width	2600mm
Height	2900mm
Introduced	1939
Withdrawn	1988
Builder	Metro-Cammell

System	630–750 V DC fourth rail
Weight	28.7t

Number			Note	Base
012256		P	4w-4wRER	LT Museum Acton
10012		P	4w-4wRER	LT Museum Acton
10205			DMSO	
10221		X		RSS Wishaw
10291	*127*		DMSO	Isle of Wight Steam Railway
11012	*11178*	P	4w-4wRER	LT Museum Acton
11142		X		RSS Wishaw
11182		D	2-2w-2w-2RER	London Transport Museum
11205			DMSO	
11291	*227*		DMSO	Isle of Wight Steam Railway
12048		P	4w-4wRER	LT Museum Acton
129	*10289, 483009, 009*	P	DMSO Converted to an Airbnb	Apple Mount, Sudbury

1959 Stock



1031 at North Weald

Dan Cardwell

The 1959 Tube Stock was a type of London Underground tube train constructed in the late 1950s. They were intended for use on the Piccadilly line, but also saw use on several other tube lines. It was the first production (not prototype) tube stock to have unpainted aluminium alloy bodywork.

The 1959 Stock entered service on the Piccadilly line, but most units were drafted to the Central line because that line's "Standard stock" was becoming very unreliable. The Central line's version of the 1959 stock, the 1962 stock, later took over.

Length	15620mm
Width	2597mm
Height	2833mm
Formation	DM,T,NDM,DM
System	630–750 V DC fourth rail
Introduced	1959
Withdrawn	2000
Builder	Metro-Cammell
Weight	29.81t

Number			Note	Base
1018		S		Southern Transport, Upper Beeding
1030				Mangapps Railway Museum
1031	*1085*	S	used as a museum	Epping & Ongar Railway
1044		A	Loco hauled	Alderney Railway Society
1045		A	Loco hauled	Alderney Railway Society
1304		S		Southern Transport, Upper Beeding
1306		S	used for training	Met Police Training Centre, Gravesend
2044			trailer car	Mangapps Railway Museum
9305		S		Southern Transport, Upper Beeding
NL 1305	*1305*	S		Old North Road Station, Longstowe

1960 Stock

The London Underground 1960 Stock was a class of electric multiple unit for the London Underground Central line. Twelve motor cars were supplied by Cravens, and pairs were made up to four cars by the addition of two converted standard stock trailers. A production run of 338 motor cars was shelved, due to the time needed to assess the new features and the cost of converting the trailer cars. Some of the pre-1938 trailers were later replaced by 1938 stock trailers.

The trains were used as a test-bed for automatic train operation, where control signals were picked up from the running rails, and all control of the moving train, apart from the initial command to start when leaving a station, was managed by a "black box" controller. The Woodford to Hainault section of the Central line was used for these tests, in preparation for the introduction of the system on the Victoria line when it opened. In 1986, three trains were converted back for manual operation, and a 3-car unit worked the peak-only Epping to Ongar shuttle service, until that line closed on 30 September 1994. One train still works as a track recording unit, while a second is in private ownership and has been used for railtours on the Underground.

Length	15860mm
Width	2597mm
Height	2883mm
Formation	DM,T,NDM,DM
System	630–750 V DC fourth rail
Introduced	1960
Withdrawn	1994
Builder	Cravens
Weight	27.32t

Number		Note	Base
3906	S	4w-4wRER	Cravens Heritage Trains
3907	S	4w-4wRER	Cravens Heritage Trains

1962 Stock

The 1962 Stock was built by Metro-Cammell and the BR Workshops in Derby for use on the Central line. Each unit consisted of four vehicles; two outer driving motors (DM), an intermediate trailer (T), and an intermediate non-driving motor (NDM), formed DM T NDM DM. A train usually consisted of two units working in multiple forming an eight-car train. Most 1962 stock units were 4 cars long, although an extra 3-car unit was also ordered; this vehicle lacked an NDM vehicle and was numbered 1751. This unit was ordered specifically for the Aldwych shuttle until it was given a fourth car in 1989 and entered service on the Central Line.

The 1962 Stock was ordered as a matter of urgency to replace the Standard Stock previously used on the Central line. Two fires on Standard Stock units (in 1958 and 1960) resulted in the hospitalisation of dozens of passengers. This experience, plus rapidly increasing numbers of breakdowns, hastened the need to replace these trains (which dated back to the 1920s).

One complete unit was preserved by Cravens Heritage Trains in 1995 on withdrawal from service with London Underground. However, CHT announced in January 2023 that their

unit had been sold back to London Underground for spare part recovery to maintain LU's Railhead Adhesion Trains.

Length	15620mm
Width	2597mm
Height	2833mm
Introduced	1962
Withdrawn	1999
Formation	DM, T, NDM, DM
System	630–750 V DC fourth rail
Builder	Metro-Cammell / BR Derby
Wheel Arrangement	2-2w-2w-2 RER

Number		Note	Base
1407			
1506	X	Sold back to TFL for spares	
1507	S	Sold back to TFL for spares	
1570			
1677	S		Private Site, Nottinghamshire
1690	X		
1691	X		
2506	S	Sold back to TFL for spares	
9459	X		
9507	X	Sold back to TFL for spares	
9577			
9691			

1967 Stock

The 1967 tube stock was built by Metro-Cammell for the new Victoria line. All the trains were designed for automatic operation, although they could be driven manually in the depot or in an emergency. Withdrawn cars of Mk I 1972 Stock were later moved into the 1967 stock fleet in the 1990s, creating a fleet of forty-three 1967 stock trains. As they did not feature ATO, they were used only as non-driving cars, positioned in the middle of trains rather than at the ends. Each complete train consisted of two four-car units coupled together. The operator started it by simultaneously pressing two buttons in the cab to initiate the automatic process.

1967 tube stock cars included wrapped-round windows in the drivers cab and extended windows in the doors, so that standing passengers could see the station name. Loading times at stations were improved by providing a stand-back beside the doors, so that passengers standing near the doors did not block so much of the exit. Lighting was by

fluorescent tube, with two lights in each car fed from the battery through an invertor, so that they remained lit should the motor alternator shut down.

Most cars were sent to C F Booth of Rotherham to be scrapped. However some units, particularly those which include 1972Mk1 cars, have been placed into storage at Eastleigh works, possibly as spare cars for the Bakerloo line. Two driving motor cars from the last run, 3079 and 3179, have been incorporated into the Asset Inspection Train. In addition to this, one four-car unit, 3160, remained in Northumberland Park depot. It was used to shunt newly delivered trains of 2009 Stock, however now that these have all been delivered it has been moved. Another unit, 3067, is used to train cleaners, and can move between various depots to facilitate this. It currently resides at London Road depot on the Bakerloo line.

Length	16080mm
Width	2642mm
Height	2870mm
Introduced	1968
Withdrawn	2010
Builder	Metro-Cammell
Formation	DM,T,T,DM
System	630–750 V DC fourth rail

Number		Note	Base
3007	S	2-2w-2w-2RER	Arlington Fleet Services - Eastleigh Works
3016	S	2-2w-2w-2RER Bodyshell only , cab from 3049	Walthamstow Pump House Museum
3022	S	2-2w-2w-2RER	Arlington Fleet Services - Eastleigh Works
3049	S	2-2w-2w-2RER	Walthamstow Pump House Museum
3052	D	2-2w-2w-2RER	LT Museum Acton
3079	X	2-2w-2w-2RER	
3107	S	2-2w-2w-2RER	Arlington Fleet Services - Eastleigh Works
3122	S	2-2w-2w-2RER	Arlington Fleet Services - Eastleigh Works
3179	X	2-2w-2w-2RER	
3186	D	2-2w-2w-2RER	Walthamstow Pump House Museum

1972 Stock



MRG

The London Underground 1972 Stock is a type of rolling stock used on the London Underground. The 1972 Stock was originally ordered to make up the shortfall in trains on the Northern line's 1959 Tube Stock fleet. The 1972-tube stock operated on the Bakerloo, Northern, and Jubilee lines. A few trains were later converted for use on the Victoria line. The design was similar to the 1967 Victoria line trains with longer windows, curved cab sides and fluorescent interior lighting. On introduction they had unpainted aluminium bodywork.

The 1972-tube stock was replaced on the Northern and Jubilee lines, but still operates on the Bakerloo line. Following the withdrawal of the British Rail Class 483 EMUs in 2021, the 1972 Stock are now the oldest EMUs in passenger service in the United Kingdom. A total of 63 seven-car trains were built in two separate batches. The class received the Class 499/2 designation on British Rail's TOPS system to operate on the Bakerloo line north of Queens Park.

Length	16450mm
Width	2650mm
Height	2870mm
Introduced	1972
Builder	Metro-Cammell

Number		Note	Base
3213	X	2-2w-2w-2RER	
3313	X	2-2w-2w-2RER	
3530	D	4w-4wRER	LT Museum Acton
4213	A	Trailer	
4313	A	Trailer	

1973 Stock

The London Underground 1973 Stock is a type of rolling stock used on the Piccadilly line of the London Underground. It was introduced into service in 1975 with the extension of the line to Hatton Cross, followed by a further extension to Heathrow Central in 1977. A total of 86 six-car trains were built.

The trains were built by Metro-Cammell between 1974 and 1977 and were refurbished by Bombardier Transportation between 1996 and 2001. They are some of the oldest trains running on the Underground, and in Britain as a whole, second only to the 1972 Stock running on the Bakerloo line.

The initial order included two test units equipped with solid state traction equipment and electronic control systems. These were double-ended units 892-692-893 (delivered 1977) and 894-694-895 (delivered 1979) and were known collectively as the ETT (Experimental Tube Train). The first unit was equipped by Westinghouse, the second by GEC. In order to provide additional units for the opening of the Heathrow loop, these units were converted to standard at Acton Works, entering service between 1986 and 1987.

In June 2018, TfL announced 94 nine-car 2024 stock trains to replace the 1973 Stock. As of early 2021, these are expected to enter service from 2025.

Formation	DM-T-UNDM
System	630 V DC fourth rail
Length	17.676m
Width	2.629m
Height	2.88m
Introduced	1974
Builder	Metro-Cammell
Weight	18.45t

Number		Base
662	P	LT Museum Acton

1983 Stock

The London Underground 1983 Stock was a class of electric multiple unit built by Metro-Cammell for use on London Underground's Jubilee line. The 1983 Stock could be considered the last train to be designed by London Underground; it was the last conventional Tube train in the long line of evolving design since the 1938 Stock. The stock was built by Metro-Cammell to replace the 1972 Mark II Stock operating on the Jubilee line; in turn this was intended to enable those trains to replace the 1938 Stock on the Bakerloo line.

The 1983 tube stock was formed in pairs of three-car units. Fifteen trains were delivered for the Jubilee line in 1983 and a further batch arrived from 1987. They had brightly coloured interiors and modern features, including passenger operated doors. The doors, however, were only single. This slowed down boarding and was a significant factor in the decision to withdraw these trains after just 15 years' service.

Length	17726mm
Width	2630mm
Height	2875mm
Introduced	1983
Withdrawn	1998
Builder	Metro-Cammell
System	630–750 V DC fourth rail

Number		Note	Base
3662	S	4w-4wRER	Village Underground
3721	X	4w-4wRER	
3733	S	4w-4wRER	Village Underground
3734	D	4w-4wRER	LT Museum Acton
4622	S	Trailer	Village Underground
4633	S	Trailer	Village Underground

1986 Stock

1986 Prototype Stock

In 1986, three four-car prototype trains were built for the Central line. They trialled new technology and interior design. Each had its own colour; red, blue and green. As well as extensive testing, the prototypes saw brief spells of passenger service on the Jubilee line in 1988 and 1989.

The public consultation results show that the blue prototype was the favoured and provided the core design basis for the 1992 Stock that was built for London Underground's

Central line and for the Class 482 which was built for Network SouthEast's Waterloo & City line.

Length	16850mm
Width	2750mm
Height	2910mm
Introduced	1986
Withdrawn	1989
System	630–750 V DC fourth rail
Builder	BR Derby Works (Blue) Metro-Cammell (Red and Green)

Number		Note	Base	Livery
16	D	4w-4wRER	LT Museum Acton	GRE

A Stock

A60/62 Stock

The London Underground A60 and A62 Stock, commonly referred to as A Stock, was a type of sub-surface rolling stock which operated on the Metropolitan line of the London Underground from 12 June 1961 to 26 September 2012, and on the East London Line from 1977 until 22 December 2007, when it closed to be converted into London Overground (except in 1986, when one person operation conversion of the fleet took place).

The stock was built in two batches (A60 and A62) by Cravens of Sheffield in the early 1960s and replaced all other trains on the line. At the time of its withdrawal in September 2012, the stock was the oldest on the Underground. It was the only stock to have luggage racks, umbrella hooks and separate power and braking controls, and the last stock not to have any automated announcements.

Introduced	1961
Withdrawn	2012
Builder	Cravens
Formation	DM,T,T,DM
System	630 V DC fourth rail
Length	16.2m
Width	2.9m
Height	3.7m
Wheel Arrangement	Bo'Bo'+2'2'+2'2'+Bo'Bo'
Max Speed	70mph
Driving Wheel Dia	3ft
Weight	31.9t
Transmission	GEC

Number		Note	Base
5034	D	4w-4RER	LT Museum Acton

C Stock

C69/77



Paul Furze

The London Underground C69 and C77 Stock, commonly referred to as C Stock, was a type of sub-surface rolling stock used on the Circle, Hammersmith & City and District lines of the London Underground between 1970 and 2014. These were replaced with S stock trains, which also operate on the District, Hammersmith and City, Circle and Metropolitan lines.

Length	16000mm
Width	2920mm
Height	3680mm
Formation	DM,T
System	630–750 V DC fourth rail
Introduced	1970
Withdrawn	2014
Builder	Metro-Cammell
Weight	31.7t
Driving Wheel Dia	3ft

Number		Note	Base
5701	W	4w-4wRER	Royal Greenwich School Trust

5720	W	4w-4wRER	Plumcroft Primary School
5721	D	4w-4wRER	LT Museum Acton

City and South London Railway

Mather & Platt Locomotives

When the City & South London Railway (C&SLR) was authorised in 1884, two prototype locomotives were built by Mather & Platt in 1889, to a design by Dr Edward Hopkinson, with Beyer-Peacock supplying many of the mechanical parts. No. 1 used motors mounted directly on the drive axles, while No. 2 had motors driven through gears. Trials were conducted in December 1889 with No. 1 and two passenger cars. No. 2 was also used for testing, but it is not clear whether it pulled any cars. A production run of 14 locomotives was then built, numbered 1 to 14, duplicating the original numbers 1 and 2.

The locomotives were small and short to fit within the small diameter tunnels, which were 10 feet 2 inches (3.10 m) at the northern end of the railway, and 10 feet 6 inches (3.20 m) on the straighter southern section, to allow higher speeds. The cab was built along the centre line of the locomotive with a door at each end and the controls and equipment mounted on the sides. There was a single driving position at one end of the locomotive with the power controller on one side and the Westinghouse air-brake valve and hand-brake column on the other. The controls worked directly so no form of multiple-unit control was ever possible.

Each locomotive could haul three coaches at up to 25 miles per hour (40 km/h) on good track, providing a service speed of around 11.5 mph (18.5 km/h). At the end of a run, the arriving locomotive was trapped in the platform by its carriages. A replacement locomotive hauled the train away on the next trip and the released locomotive was then available to head the next incoming train (this is called "slip working").

The railway was opened on 4 November 1890 by The Prince of Wales (later King Edward VII) and locomotive No. 10 carried a commemorative nameplate with the name Princess of Wales to celebrate its use on that occasion

System	500V DC
Length	14ft
Width	6ft 10in
Height	8ft 51/2in
Introduced	1889
Withdrawn	1923
Builder	Mather and Platt
Max Speed	25mph

Number	Base	Depot

D Stock

D78 Stock



7501 at Ecclesbourne

Dan Cardwell

The London Underground D78 Stock, commonly referred to as D Stock, was a type of sub-surface rolling stock which operated on the District line of the London Underground, except on the Wimbledon to Edgware Road service. The first units were withdrawn in January 2015 with the last withdrawn on 21 April 2017.

The D stock was ordered in 1976 to replace the pre-war CO/CP Stock and post-war R Stock on the District line. Seventy-five six-car trains were built by Metro-Cammell, Washwood Heath, the first entering service on 28 January 1980 with last delivered in 1983. The class received the Class 499/0 designation on British Rail's TOPS system to operate on the Richmond and Wimbledon branches.

In 2014 Vivarail purchased 156 driving motor cars and 70 trailer vehicles for conversion to Diesel–electric multiple units. 75 two or three-car units proposed. Under TOPS they are designated as Class 230. Five units have been converted to Class 484 for the Island Line to replace the Class 483 sets.

Formation	DM,T,UNDM,UNDM,T,DM
Length	18.37m
Width	2.85m
Height	3.62m
Introduced	1980
Withdrawn	2017

London Underground

Builder	Metro-Cammell
Weight	27.46t
Engine	LT118 DC motor
Transmission	GEC

Number		Base
7012	D	LT Museum Acton
7027	D	Coopers Lane School, Lewisham
7043	X	
7501	P	Ecclesbourne Valley Railway
7502	X	

ESL Sleet Locomotives

London Underground sleet locomotive

Sleet locomotives were specialised de-icing vehicles for use on open-air sections of the Underground. Eighteen were built at Acton Works during 1939 and 1940. They were constructed out two former 1903 Central London Railway motor cars, back-to-back. The de-icing equipment, including brushes, ice-crushers and spraying gear, was carried by trailer bogies under the central portion. Anti-freeze solution was contained in two 75-gallon tanks.

Sleet locomotives became redundant in the 1980s, when de-icing equipment was fitted to passenger stock.

Length	15320mm
Width	2570mm
Height	2900mm
Introduced	1938
Withdrawn	1985
Builder	Acton Works 1940
System	630–750 V DC fourth rail

Number			Note	Base
ESL107	*107*	D	4w-4-4-4wRE	LT Museum Acton

L11 Acton Shunter

Acton Shunter L11



L11

Dan Cardwell

The Acton Shunter L11 was a new shunting locomotive for Acton Works was constructed in 1964 and numbered L11. It was manufactured by cutting in half two standard 1931 tube stock DMs, car numbers 3080 and 3109, and joining the driving ends. Most of the underframe equipment was moved into the body to facilitate servicing.

The east (Acton works) end had ward couplings at both surface stock and tube stock height, and the latter could be fitted with an adaptor to enable it to connect to more modern stock fitted with the wedgelock type coupling. This end also had the communicating door replaced by a stable door arrangement and a lighting unit fitted so as to make it easier for the driver to see the coupler. Initially the standard maroon livery was used, but in 1983 it was repainted in the new engineers' vehicle yellow livery.

It was withdrawn from service in 1989, and was stored in the open initially at Ruislip, then later at Acton works. In 2004 a preservation group moved it to a compound outside the signal box at Epping and did some restoration work and it is now possible to offer guided tours of the locomotive on open days.

Introduced	1964
Withdrawn	1989
Wheel Arrangement	B-B
Builder	Acton Works 1964
Length	15.32m
Width	2.67m

Number	Base

11	*L11, 3080, 3109*	D	Epping Signalling Museum

L35 Battery

Battery Powered TFL Locomotive

This battery locomotive, L35, was built in 1938. It was used for hauling the engineering trains that repaired track on the tube lines. It could run off a line's electricity, but the independent battery power allowed it to work at night, when the current was off. Originally in traditional maroon livery, it was repainted yellow so that it could be seen more clearly at night. The locomotive weighs 53.8 tonnes.

Length	16.6m
Width	2.65m
Height	2.9m
System	630–750 V DC fourth rail
Introduced	1938
Withdrawn	1992
Builder	Gloucester Railway Carriage & Wagon Company
Weight	53.8t
Max Speed	30mph

Number			Note	Base
L35	*7903*	D	4w-4wBE	LT Museum Acton

O/P Stock

O and P Stock



Dan Cardwell

The London Underground O and P Stock electric multiple units were used on the London Underground from 1937 to 1981. O Stock trains were built for the Hammersmith & City line, using metadyne control equipment with regenerative braking, but the trains were made up entirely of motor cars and this caused technical problems with the traction supply, so trailer cars were added. P Stock cars were built to run together with the O Stock cars now surplus on Metropolitan line Uxbridge services. The trains had air-operated sliding doors under control of the guard; the O Stock with controls in the cab whereas the P Stock controls in the trailing end of the motor cars. The P Stock was introduced with first class accommodation, but this was withdrawn in 1940.

In the early 1950s, some Uxbridge O and P Stock trains were transferred to the Circle line. The increasingly unreliable metadynes were replaced and the converted trains became known as CO/CP stock. In the early 1960s, the remaining Uxbridge CO/CP Stock trains were transferred to the District line, so that during the 1960s generally Hammersmith & City and Circle line services were operated by CO stock and CP stock was used on the District line. Following the introduction of C69 Stock in the early 1970s, all CO and CP Stock trains were used on the District line until they were replaced by the C Stock and D Stock trains; the last train running in service in 1981.

Length	15540mm
Width	2956mm
Height	3594mm
Introduced	1937
Withdrawn	1981
Weight	36.32t

London Underground

System	630–750 V DC fourth rail

Number			Note	Base
013063		D	COP	Buckinghamshire Railway Centre
53028	*13028*	D	CO	Buckinghamshire Railway Centre
54233	*14233, 013167*	D	CP	Buckinghamshire Railway Centre
54256	*14256*	S	2w-2-2-2wRER	Norton Mandeville

Q23 Stock

Q Stock



Q23-stock was the name given to modernised ex-G- stock cars. The G-stock was introduced to the District line in 1923. These cars were fitted with hand-operated doors and were nicknamed 'horse boxes' because of their narrow cabs. In 1938 this stock was modernised so that it could run with the new Q38 stock. The modernised cars had automatic doors and electro-pneumatic brakes.

Length	15750mm
Width	2960mm
Height	3750mm
Introduced	1923
Withdrawn	1971
Builder	Gloucester Railway Carriage & Wagon Company
Weight	34.1t

System	630–750 V DC fourth rail

Number			Note	Base
4184	*5026, O/5026*	D	4w-4RER	LT Museum Acton
4248	*5026, O/5026*	D	4w-4RER	London Transport Museum

Q38 Stock

London Underground Q Stock

The Q38 stock was built in Gloucester as part of the 'New Works' programme, a major modernisation scheme that began in 1935. The modern cars had stylish windows and distinctive flared sides, which were partly to stop people riding on the outside of cars. Used on the District line from 1939 to around 1970, the new cars were often combined with older stock.

Length	16100mm
Width	2960mm
Height	3595mm
System	630–750 V DC fourth rail
Introduced	1939
Withdrawn	1971
Builder	Gloucester Railway Carriage & Wagon Company

Number			Note	Base
4416		D	2w-2-2-2wRE	LT Museum Acton
4417	*L127, O/8060, 8060*	O	2w-2-2-2wRE	Barrow Hill
6110		O	details on this vehicle are quite vague	LT Museum Acton
8063	*08063*	D	2w-2-2-2wRE	LT Museum Acton

R Stock

The R-stock was commissioned between 1949 and 1959 and ran on the District line until 1983. It comprised 246 newly constructed cars and 132 cars converted from 1938 Q-stock. Notable features include it being the first stock on the Underground with fluorescent lighting and the fact that every car was equipped with traction motors.

Length	15800mm
Width	3000mm

Height	3600mm
Introduced	1949
System	630–750 V DC fourth rail
Withdrawn	1983

Number	Name		Note	Base
21147		S	4w-4wRER	Penn Meadow Farm
22624	2228		4w-4wRER	Mangapps Railway Museum
22679		D	4w-4wRER	LT Museum Acton

Standard Stock

A generation of tube trains known as 'Standard stock' were built between 1923 and 1934. The traction control equipment was housed behind the driver's cab and took up a lot of room.

All Standard stock cars had air-powered doors instead of attendant-controlled gates at the ends. This greatly increased the speed passengers could board at stations. Standard stock were the principal trains on the Piccadilly and Central lines until the early 1960s.

Length	15800mm
Width	2670mm
Height	2930mm
Introduced	1927
Builder	Various
Weight	29 tons
System	630–750 V DC fourth rail
Withdrawn	1964

Number			Note	Base
3327		D	4w-4RE	LT Museum Acton
3379	*320, L134*	D	4w-4RE	LT Museum Acton
3693	*L131*	D	4w-4RE	LT Museum Acton
5279	*1789, 485043, 27*	D	4w-4RE	LT Museum Acton
7296	*846, 485044, 49*	D	4w-4RE	LT Museum Acton

T Stock



Metropolitan T Stock Driving Motor Third

Dan Cardwell

The T Stock was a series of electric trains originally built in various batches by Metropolitan-Vickers and the Birmingham Railway Carriage and Wagon Company for the Metropolitan Railway in 1927–31 for use on electric services from Baker Street and the City to Watford and Rickmansworth, though rarely some worked on the Uxbridge branch.

The earlier batches were built from wood and sandwiched trailers of 1898–1923 vintage, however later batches were steel in construction and worked with new built trailers. As built the group has some variations in equipment, mostly to allow use with existing stock such as the Saloon and Ashbury trailers and leading to incompatibilities within the class, however upon transfer the London Transport this was rectified and the entire fleet largely standardized about 1938.

Introduced	1927
Withdrawn	1962
Builder	Metropolitan Vickers / Birmingham Railway Carriage and Wagon Company
System	630–750 V DC fourth rail
Length	6.38m

Number			Base
249	*2749, ESL118B*	S	Buckinghamshire Railway Centre
258	*2758, ESL118A*	S	Buckinghamshire Railway Centre

Metropolitan Railway

1904 EMU

Metropolitan EMU from 1904

The first order for electric units for the Metropolitan Railway was placed with Metropolitan Amalgamated in 1902 for 50 trailers and 20 motor cars, which were intended to run as ten 7-car trains, although due to problems with platform lengths these ran as 6-car trains. They were open saloon cars with access at the ends via open lattice gates.

The units had two motor cars which were equipped with Westinghouse electric equipment and four 150 hp motors and ran off-peak as 3-car units with a motor car and a driving trailer. Twenty 6-cars trains were ordered for the Hammersmith & City line that the Met jointly operated with the Great Western Railway with Thomson-Houston equipment and GE76 150 hp motors. In 1904 an order was placed for a further 36 motor cars and 62 trailers with an option for a further 20 motor cars and 40 trailers.

The first electric multiple units ran on 1 January 1905 from Uxbridge to Baker Street, the Uxbridge branch having opened in July 1904 and worked by steam for six months. After problems with the Metropolitan shoe gear on the District Railway were solved, the inner circle began a full electric service on 24 September 1905, reducing the travel time from seventy to fifty minutes.

The trains had first- and third-class accommodation with electric lighting and heating. However, it was quickly found that the lattice gates left the coach ends exposed when working in the open and the cars were modified with vestibules from 1906. Having access only from the end of the coaches was a problem on the busy circle line and centre sliding doors were added from 1911. In 1910 two motor cars were modified with driving cabs at both ends and started work on the Uxbridge shuttle service, before being transferred to the Addison Road shuttle in 1918.

System	660V DC 4 Rail
Introduced	1905
Withdrawn	1934

Number			Base
9486	*4*	S	LT Museum Acton

A

Metropolitan Railway A Class



The Metropolitan Railway A Class and B Class were 4-4-0T condensing steam locomotives built for the Metropolitan Railway by Beyer Peacock, first used in 1864. A total of 40 A Class and 26 of the slightly different B Class were delivered by 1885. Used underground, the locomotives condensed their steam, and coke or smokeless coal was burnt to reduce the smoke.

Most locomotives were withdrawn after electrification in the early 20th century, forty having been sold by 1907.

Introduced	1864
Withdrawn	1948
Wheel Arrangement	4-4-0 T
Builder	Beyer Peacock
Weight	45.9t
TE	11,156 lbf
Driving Wheel Dia	5ft 10in
Wheelbase	20ft 9in
Boiler Pressure	150 psi
Num Cylinders	2, outside
Cylinder Dimensions	17 1/2 in × 20 in

Number		Base
23	D	London Transport Museum

E

Metropolitan Railway E Class

The Metropolitan Railway E Class is a class of 0-4-4T steam locomotives. A total of seven locomotives were built between 1896 and 1901 for the Metropolitan Railway: three by the railway at their Neasden Works and four by Hawthorn Leslie and Company in Newcastle upon Tyne.

Introduced	1896
Withdrawn	1965
Wheel Arrangement	0-4-4 T
Builder	Neasden Works/Hawthorn Leslie
Weight	54t 10c
TE	14,515lbf
Driving Wheel Dia	5ft 6in
Boiler Pressure	150 psi
Num Cylinders	2, inside
Cylinder Dimensions	17 in × 26 in

Number		Base
1	*L44*	Buckinghamshire Railway Centre

Metropolitan-Vickers

Electric Locomotives used by the Metropolitan Railway



12 Sarah Siddons at The Greatest Gathering

Neil Thaler

Metropolitan Railway electric locomotives were used on London's Metropolitan Railway with conventional carriage stock. On the outer suburban routes an electric locomotive was used at the Baker Street end that was exchanged for a steam locomotive en-route (latterly at Rickmansworth).

Locomotive change at Rickmansworth, Metropolitan Line, August 1960. The first ten had a central cab and were known as camelbacks, and these entered service in 1906. A year later another ten units with a box design and a driving position at each end arrived. These were replaced by more powerful units in the early 1920s.

The locomotives were withdrawn from passenger service in 1962 after electrification reached Amersham and the A Stock electric multiple units entered service.

System	600V Fourth Rail
Introduced	1922
Withdrawn	1962
Wheel Arrangement	Bo-Bo
Builder	Metropolitan-Vickers
Power	1200 HP
Weight	61.4t
Max Speed	65mph

Number	Name		Base	Livery
12	Sarah Siddons	*89212*	P	MET

5	John Hampden	D	London Transport Museum	MET

Glasgow Underground

Barclay Trailer

Glasgow Underground Trailer



207 @ Glasgow Springburn 19.05.25

Phil Hayward

The Glasgow Subway rolling stock serves the Glasgow Subway, the third-oldest underground metro system in the world. Unlike other Metro systems in the United Kingdom, the Subway has a running gauge of 1,220 mm (approximately 4 ft)

Gauge	1220mm
System	600V DC Third Rail
Introduced	1992
Withdrawn	28 June 2024

Number		Base
202	P	The Hive, Finnieston
204	P	The Hive, Finnieston
206	P	The Hive, Finnieston
207	S	The Hive, Finnieston

Hurst-Nelson Driving Motor

Glasgow District Subway, Driving Motor Open



Glasgow District Subway, Driving Motor Open

Gauge	4ft
System	600Vdc
Introduced	1901

Number		Base
55	D	Bo'ness & Kinneil Railway

Metro-Cammell Power Car

Glasgow Underground Power Car

The Glasgow Subway rolling stock serves the Glasgow Subway, the third-oldest underground metro system in the world. Unlike other Metro systems in the United Kingdom, the Subway has a running gauge of 1,220 mm (approximately 4 ft)

Gauge	1220mm
System	600V DC Third Rail
Length	12.58m
Width	2.34m
Introduced	1977
Withdrawn	2024
Builder	Metro-Cammell
Weight	20t

Max Speed	34mph
Driving Wheel Dia	688mm
Seats	112

Number		Base
105	P	The Hive, Finnieston
106	S	Bench 504, Birminghmam
107	P	Northumbria Rail
110	P	The Hive, Finnieston
111	P	The Hive, Finnieston
112	U	Unknown Location
117	P	Beatroute Arts Centre, Glasgow
118	S	The Hive, Finnieston
120	P	Hutchesons Pollock Park, Glasgow
121	P	The Hive, Finnieston
124	P	Ivy in the Park Nursery, Glasgow
125	S	Gibsons Engineering, Springburn, Glasgow
126	P	Old North Road Station, Longstowe
128	D	Glasgow Riverside Museum
129	P	Northumbria Rail
130	P	Doon Valley Railway
133	P	The Hive, Finnieston

Oldbury Driving Motor

Glasgow District Subway Company, gripper car.

Glasgow District Subway Company, gripper car. Later converted to driving motor (1936)

Gauge	4ft
Introduced	1896
Withdrawn	1977
Builder	Oldbury

Number	
1	S

Trailer

Glasgow District Subway Company trailer third

Glasgow District Subway Company trailer third

Glasgow Underground

Gauge	4ft
Builder	Hurst Nelson
Bogies	4w

Number	Note	Base
39T		Glasgow Riverside Museum
4	Part only	Glasgow Riverside Museum
7	use as glamping pod	