CAMBRIAN model rail

4mm Scale

Wagon Kits

1st June 2022

Version 2 - 27/05/2022

cambrianmodelrail.co.uk



Cambrian 4mm Scale Wagon Kits

Welcome to the 2022 Cambrian catalogue

- Our wide range of plastic wagon kits cover a long period of railway history. There are wagons suitable for the early years of the 20th century, the years of the "Big Four", the BR steam/diesel era and the "Modern Image" period up to the early years of the 21st century. Our wagon kits are moulded in polystyrene.
- Kits can be fitted with 3-link or screw couplings. A mounting block for Hornby couplings is included in most kits (but Shark kits have moulded coupling bars). Hornby "traditional" or Bachmann "Mini" (36-025) can be fitted to wagons with "one-piece" bogies. Bachmann "mini" or "NEM" plug-couplings can also be fitted to other wagons using adaptors made by Parkside. Kits C82 & C106 have NEM pockets for Hornby R8219 etc. NOTE: four wheel wagon kits from C100 onwards, with their own underframe, will NOT include a coupling block.
- Paint and transfers will be required for all wagons. Suitable transfers are available in the Modelmasters, HMRS and Cambridge Custom Transfers ranges. The POW sides range includes "names" suitable for most of our Private Owner wagon kits. More details on the back page. We also now do a range of transfers for some of our Grouping era kits. These are indicated in the catalogue by references beginning CMR the kit number and the company.
- Kits do not include wheels: we recommend Alan Gibson (see page 23). Unless stated
 otherwise, 12mm wheels with 26mm axles are required. "Top-hat"/flanged bearings are also
 needed for all kits (optional on GWR Shunters' Truck). Our kits are not designed for use with
 "Ready-to-run" wheels made by Hornby or Bachmann, etc. Using these may cause difficulties
 with flange or tread clearances and axle length when assembling the kit.
- There are colour pictures of made-up models, together with prototype photos to aid construction on our website: cambrian model rail.co.uk

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PRICE CODES – see letters next to kit descriptions

A: £8.400 B: £9.00 C: £9.60 D: £10.50 E: £13.50 F: £16.20 G: £19.20 H: £22.20 T: £4.50 U: £5.10 V: £3.90 W: £3.75 X: £5.40 Y: £1.80

Great Western Wagons



C1 10ton BALLAST WAGON

Built from 1941, this design (Dia. P18/20) was also built by BR. Also used for loco sand. Includes D/C brake lever to make P15 type built from 1935. The BR code for these was "STARFISH", but was not usually painted on the wagons.





C2 10ton LOCO COAL WAGON

The final GWR design (Dia.N30) for small loco coal wagons introduced in 1935. These wagon would have been used to supply coal to small depôts. Includes "left over right" brakegear.

C3 SHUNTERS' TRUCK

Trucks to this design (M4/M5) were built from 1917 to 1948. Once commonly seen at many GWR stations, some remained in use well into the diesel era to operate track circuits, used with 08 diesel shunters. Choice of brake types – lever or D/C (as shown).



C4 18ton CHAIRED SLEEPER WAGON (DIA.T12/13)

Distinctive well wagons used by the P. Way Dept., built during 1938-44. These wagons carried ready-chaired sleepers loaded lengthwise. Choice of Dean-Churchward or lever brake handles. Following the change to preassembled track panels in the 1960s, sides were fitted to make them usable for concrete products. (see kit C29 "Taunton Concrete" Wagon, page 14). Also used by BR to transport new timber for sleepers.



C5 6ton CRANE & MATCH TRUCK

Small cranes were used where there was not a suitable fixed crane to unload goods, e.g. containers or farm implements. Variations of this type were built from the late 19th century. Several of these cranes remained in use in PW yards until the mid 1980s – Hereford was one. The crane requires 10 spoke wheels & the match truck 8 spoke wheels (both 12mm). Includes specially imported chain that is virtually scale size.



C48 LORIOT "W" / BR LORIOT

The GWR built 2 wagons in the 1940s for carrying excavators. BR built a further 11 between 1949 and 1958 (not all to the same design). Several of the BR wagons remained in use until at about 2000. Can be modified to the earlier GWR version (D/C brake lever parts not included). Includes "buffing struts" (not shown). At least 3 BR wagons are preserved. (Dapol JCB not included – a more typical load would be a tracked excavator.)



C64 40ton LOCO COAL WAGON

N14 type – includes parts for brakegear variations and two positions for the bogies. These supplied larger loco depôts, and some carried coal to the gas works on the Kingswear branch. Can be modified to the other designs of bogie loco coal wagons. With one piece floor and "one-piece" bogies.





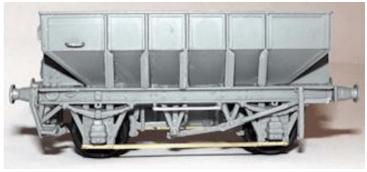
C97 12TON STEEL-BODIED OPEN

Fifty wagons to Diagram O30 were built in 1934. They had standard RCH underframes, wooden floors and wood-lined doors to prevent slipping while being loaded. With "one-piece" floor & underframe.

C110 20t "HERRING" BALLAST HOPPER

Built between 1945 and 1948, P22 hoppers had a disliked bar for operating the doors, rather than the wheel/s favoured by other railway companies.

There were 250 hoppers built, and a further 50 in 1951 as BR D1/582. Some of them lasted until the 1980s. One line on which these saw use in BR days was the Somerset & Dorset. Also seen in Shropshire transporting ballast from quarries. "One-piece" underframe and etched tie bars.



Price code G



Price code B

C100 CAMBRIAN RAILWAYS 2 PLANK

The 2 plank dropside wagon was favoured by the Cambrian, even for loads such as barrels which were taller than the wagon sides. They were most useful for transporting roofing slates – the dropsides avoided having to lift the slates in over the top. In later years, they were used as ballast wagons, some of which had the dropsides held shut by corner plates.



Price

code C

C111 CAMBRIAN RAILWAYS 4 PLANK WAGON (WITH OPTIONAL SHEET RAIL)

This has the same underframe as C100. Based on the Ken Werrett drawing done in 1920. Wagons of this type with the sheet rail were used to carry lime from the quarries southwest of Oswestry. Others without the sheet rail were used for timber etc.

LMS Wagons





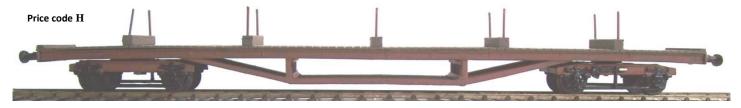
C8 16ton STEEL MINERAL WAGON Transfers CMR008-LMS

The D2109 type was without top side doors. Built during 1945-48. It can be assembled with welded or pressed side & end doors, or a mixture, like some real ones. Also suitable for the re-bodied wagons used in the 1970s.



C9 12ton STEEL VAN Transfers CMR009-LMS

An early design built by outside firms in 1929-30. This is the D1928 Gloucester-built type with corrugated ends & vents. Other variations can be produced with a small amount of work, e.g. by removing the diagonal bracing on the doors. Unlike the vans of D1976 (see C92 page 7) or D1832A (see C101 page 7), the all-steel vans did not have roof vents.



C47 BBP BOGIE RAIL WAGON

The later type of LMS rail wagon, built from 1940 with "coach" style bogies & Simplex brake levers. BR built further batches between 1949 & 1953 (coded BORAIL J or SALMON). A few BR wagons survived until the late 90s. Can be assembled with high, low or no bolsters.



C57 5 PLANK (Steel U/F) Transfers CMR057-LMS

D1667 5 plank open wagon, steel underframe (9' 0" wb./17' 6" oh.). Less numerous than the wood solebar type, 8,000 of these wagons were built between 1924

-30. They probably lasted longer in BR ownership than the wood underframed 5 plank wagons



C58 5 PLANK WAGON (Wood U/F)

Transfers CMR058-LMS

D1666 unfitted 5 plank open wagon, wood underframe (9' 0" wb./17' 6" oh.). Over 54,000 of these wagons were built from 1923 to 1930, although their timber underframe meant that they were withdrawn sooner than the steel underframed D1667.



C80 12ton WOOD BODIED VAN

Transfers CMR080-LMS

D1664 unfitted type, steel underframe (9' 0" wb./17' 6" oh.). These were based on the MR D664 van, with reversed diagonal side strapping, & shorter wheelbase.

2.544 vans were built during 1924-26. Some vans remained in use until the 1960s.

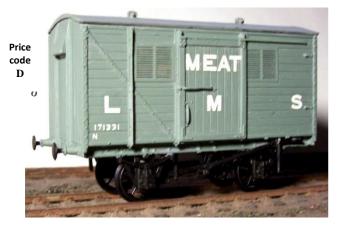


C84 MIDLAND RAILWAY 10ton VAN

Transfers CMR084-MR & CM084-LMS

D664 unfitted type, steel underframe (10' 0" wb./17' 6" oh.). With "one-piece" floor/under-frame for easier assembly.

Built between 1911 & 1921, these vans were the forerunners of the LMS standard vans.



C86 LMS 6/8ton MEAT VAN

Transfers CMR086-LMS

D1670 type built in 1927 & 1930. Some may have been Crimson Lake livery for use in passenger trains. Used until about 1960. Probably after the meat traffic was lost, these would have been scrapped, as their previous use, and resulting "contamination" would have made other uses rather restricted.



C87 LMS 12ton FISH VAN

Transfers CMR087-LMS

D1885 unfitted type, built between 1927 & 1930. Originally, full NPCS Crimson Lake lined livery was applied, but later repainting omitted the lining. After the fish traffic was lost they were probably scrapped, as mentioned in the C86 text – but more so



C92 LMS 12ton VENTILATED VAN

Transfers CMR092-LMS

2,956 of these vans were built to D1676 between 1924 & 1928. These (like our kit) had the side design of D1664 and the wood ends of the D1670 meat vans. Possibly, it was not possible to produce steel ends in sufficient quantity, as vans to D1663 (see below) were being built during the same period.

Price code C



C93 LMS ONE PLANK OPEN

1,000 wagons were built in 1937 to D1986, and were used as runners for overhanging loads, or for carrying containers & large crates. With "one-piece" floor & underframe for easier assembly.

C101 LMS 12t VENTILATED VAN (Steel Ends) Transfers CMR101-LMS

D1832A unfitted with corrugated ends, built between 1929 & 1931. 3,450 vans were built with sides similar to the earlier D1976, but the lower part of the end was angled where it wrapped round onto the sides.





C102 LMS 12ton VAN (Steel Ends) Transfers CMR102-LMS

D1663 unfitted type with corrugated ends, built from 1924 to 1928. 1.600 vans were built, similar to D1832A which were being built during the same period, but D1663 did not have the end and roof ventilators.

Price code D



LNER Wagons

Price code A



C10 16ton STEEL MINERAL WAGON

Transfers CMR010-LNE

Built 1945-48. Rivetted body with distinctive pressed side and doors. About 7,200 were built. Many remained in service well into the BR period.

Price code B



Price code B



C59 12ton 8 PLANK WAGON

Transfers CMR059-LNE & CMR059-SR

D192 steel underframe wagon built by SR (SR D1390). Choice of RCH or LNER axleboxes. The Southern had 100 wagons and the LNER had the other 1850.

C81 12ton 6 PLANK OPEN

Transfers CMR081-LNE & CMR081-GNE

12ton Six Plank Open (Wood underframe) – built from 1922 to 1932. There were over 20.000 of this type and were seen in many parts of the country.

SEE ALSO C107 ON PAGE 11 for D178 5 Plank

Price code H



C83 QUINT D BOGIE BOLSTER Transfers CMR083-LNE

D105, built 1936-39. Wood bodied type, with "one-piece" bogies. The earlier wagons, built from 1929, differed only in that the outer bolsters were fixed at the ends of the wagon (as shown above), whereas the later wagons of D105 had an alternative position over the bogies. Some were used by BR for timber traffic and track-lifting.

Southern Railway Wagons





C6 12ton 8 PLANK OPEN

Transfers CMR006-SR

A numerous type, our kit is for the 9 foot wheelbase unfitted design. Also used as engineers wagons – many were converted to carry cable drums for electrification work during 1950-70.

See also C96 on page 10 – 10ft. wbversion.



Transfers CMR007-SR

Built between 1928 and 1948, some were still in use in the late 1990s. One of three body types can be built: plain or unequal planked, left or right handed duckets. Optional sandboxes and extra window frames for the SR/BR modifications.

See also C95 on page 10 – 15ton version with shallower solebars and RCH axleboxes.



C50 10ton 5 PLANK OPEN

Transfers CMR050-SR

Built in 1930-31, these wagons used LSWR underframe parts & were known as "Rebuild Type 1" (D.1380). There were 900 of these wagons built, 17' 6" over headstocks with 9' wb. With LSWR buffer bodies, axle boxes & door springs as used on these wagons.





Price code G



Price code G









C33 LBSC ROUND END OPEN

Transfers CMR033-SR

The standard LBSC open (D1369), body style as built during 1912-26. Some remained in use on the Isle of Wight until 1966: most of these had flat-topped ends. Includes flat end option for SR-built wagons and LBSC wagons with ends cut down by the SR.

C66 SECR 7 PLANK OPEN

Transfers CMR066-SR

These were built from 1919 with a final batch built by the SR to D1355 in 1926. 2120 wagons had been built by the time construction ended in 1927. A few remained in Revenue stock until the early 1960s. Includes parts for optional sheet rail (right).

C55 40ton BALLAST HOPPER

Transfers CMR055-SR

Built in 1928 to SR diagram D1772, this design was based on the LSWR hoppers and continued through two other SR versions to the BR Walrus & Sealion/Seacow. This early type had controls for the full length doors at one end, rather than at both ends for the 2-part doors used on all the later designs.

"One-piece" bogie frames and stretcher, with separate axle boxes.

C67 40ton BALLAST HOPPER

Transfers CMR067-SR

These were built in 1947 to SR diagram D1775 and had AAR cast bogies. It is said that the steeper end slope of the hopper was because the stone then being supplied from Meldon Quarry did not "flow" as well as it had when the first hoppers were built. The BR Walrus (C65 on page 14) of 1954 was virtually identical apart from the bogies. With "one-piece" bogies.

C77 SECR 2 PLANK DROPSIDE WAGON

Transfers CMR077-SR

50 of these wagons were built in 1919, and a further 50 in 1923 by the SR. When built, they had extended floor planks, which were later sawn off. Parts for these are included in the kit. Some wagons lasted until about 1970, a few being used by the Western Region following region boundary changes.



Price code G



C78 SECR/SR "DANCEHALL" BRAKE VAN (D1560) Transfers CMR078-SR

Built during 1923-26. The kit can be modified to represent the earlier 1921-built vans of D1559. There are extra parts to allow the Departmental "Ballast Brake Van" conversion of 10 vans in 1953 to be built (with one verandah boxed in: see right-hand picture). Some vans were air-piped and survived until the 1990s.

Price code C



C79 LSWR/SR 8 PLANK OPEN

Transfers CMR079-LSW & CMR079-SR

SR D1316. Over 1300 of these were built between 1904 and 1925. Some lasted until the 1960s. With "one-piece" floor and underframe (18' x 10' 6" wheelbase). Includes optional sheet rail and later style of top doors – these require the earlier doors cut out from the side to fit them.





C95 SR 15ton BRAKE VAN

Transfers CMR095-SR

A lighter van built in 1934 for use on branch lines. The fifty vans to D1581 had shallower solebars and smaller RCH-type axleboxes. Some of these vans spent their entire working life on the same branch. A few lasted into the 1990s, and one on the Isle of Wight was in use until about 2000.

Price code



C96 SR 12TON OPEN WAGON (D1400)

Transfers CMR096-SR

10ft. wheelbase version of the standard SR open. 1400 "Rebuild Type 4" wagons were built between 1937 & 39. With "one-piece" floor & underframe. Price code D



C98 SECR 10 TON VAN (1426)

Transfers CMR098-SR

These vans were built between 1919 and 1922, but the SR built a further 100 of D1426 at the end of 1925. They remained in revenue use until the 1960s.



Price code G

C103 SR "BORAIL" BOGIE RAIL WAGON (D1598)

These wagons were used to transport new rails from Workington and Scunthorpe, so were seen "off" the Southern system. Some were fitted with small cranes to unload the rails. With diamond frame bogies.



Price code

C104 SR "BORAIL" BOGIE RAIL WAGON (D1599)

The later wagons had cast bogies. Choice of buffer types. In later years, wooden planked floors were fitted over the steel plates when these rusted and became unsafe to walk on (also on D1598).



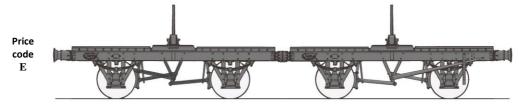
C107 SR/LNER 5 PLANK OPEN (D1375/D178) Transfers CMR107-SR & CMR107-LMS

These wagon were built between 1942 & 1943, and had thinner planking and less bolts to fix them. 400were built for the LNER. The LMS also had a version. With "one-piece" underframe, plus Oleo buffer bodies, vacuum cylinder and etched tie bar for the fitted conversion done by BR c1959 (illustrated).



C108 SECR 5 PLANK OPEN (D1347/49)

These wagons were built between1920 and 1925. The earlier ones were classed as "rebuilds", but probably only the wheels were secondhand. There were 550 to D1347 which had normal buffers, and 150 wagons to D1349, which had self-contained buffers. Includes both types of buffers.



C109 SECR TWIN BOLSTER WAGON - PAIR (D1610)

50 pairs of these wagons were built in 1921-2. They were permanently coupled, which allowed the use of only one brake lever per wagon. Used until the 1950s, they carried lengths of timber or short rails, etc. At least one pair were used to carry signal posts in BR days. Includes plastic bar for joining the pair of wagons.



C115 LSWR D1410 VAN

Transfers CMR115-SR, CMR115-LSW & CMR115-SD Low-roofed type on steel underframe. About 1,000 of these vans were built between 1899 & 1912. With "One-piece" underframe.

SEE ALSO C59 8 PLANK IN THE LNER SECTION ON PAGE 8

British Railways (1950s - 70s)



C54 BOPLATE E WAGON

Unfitted type, built between 1951 & 1959. These wagons had features inherited from the LMS & LNER – LMS "Simplex" brake levers & LNER buffers, but had BR plate bogies. Modernised wagons became BPA – see C26 on page 18. One piece bogie side frames and stretchers, with separate axleboxes.



C56 BOLSTER D WAGON (BR PLATE BOGIES)

Unfitted Type. These wagons were based on the wood-bodied LNER Quint Bolster wagons (see C83 on page 8), having LNER-style buffers and brake levers, but a steel body. The vac. fitted version had Gloucester or BR Roller-bearing Plate bogies – see C85/C114 below.



C85 BOLSTER D VB / BSW TIMBER WAGON

Bolster D wagon with Gloucester bogies and vacuum brake fittings. Includes conventional bolsters/stanchions, plus stanchions for the BSW conversion used for carrying timber (shown above). Load not included.



C99 BOLSTER D (LNER DIAMOND FRAME BOGIES)

Unfitted Type. These wagons were based on the wood-bodied LNER Quint Bolster wagons (see C83 above), having LNER-style buffers and brake levers, but a steel body. The first 301 built were to LNER D205, but not built until 1948. There were a further 200 built later, The bogies in the kit have one piece side frames and stretchers, with separate axleboxes.



C114 BR BOLSTER D (BR ROLLER BEARING PLATE BOGIES)

200 Bolster Ds were built at Lancing in 1959 to D1/478 with roller bearings, and vacuum braking. Manual braking was operated by handwheels at the ends of the wagon.

British Railways Departmental Wagons



C11 CATFISH 19ton BALLAST HOPPER

Catfish hoppers are similar to the Dogfish, but have a lower hopper and lack of side chutes. There was one central discharge door. 236 Catfish were built during 1955-58 by Metropolitan-Cammell to BR Diagram D1/586. These all had oil axleboxes & self-contained buffers. They were mostly all out of use by 2000.



C12 DOGFISH 24ton BALLAST HOPPER

Built from 1956 to 1960. Based on the LMS/LNER "Trout" design, Dogfish were the most numerous ballast hoppers in the engineers' fleet. The kit includes alternative chute ends for the Southern Region version, on which the chutes were wider apart to avoid discharging ballast onto the third rail. Used until about 2006.



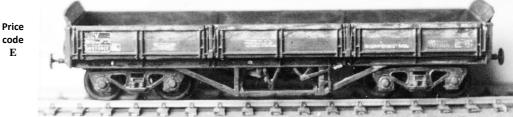
C13 MERMAID BALLAST WAGON

Built by Metro - Cammell, and almost identical to the GWR owned type (which were unfitted). They were usually used for tipping ballast from an adjacent line onto the trackbed, before laying the track.



C14 SHARK PLOUGH BRAKE VAN

Built during 1956 - 60, and based on the LMS Oyster. Ploughs at the end are lowered when in use, using the large handwheels on the platforms, and spread ballast dropped from hopper wagons. They were not widely used on the Southern electrified lines as the plough would have struck the third rail (some had their ploughs modified to clear the third rail)



C15 TURBOT 31tonne BALLAST WAGON

One of the first "modern" type of P.W. wagons (though on 30 - year old underframes). These were Bogie Bolster Es with new bodies added during 1982 - 3. There were about 900 Turbots built. The end plates were to reduce spillage over the ends. They were all out of use by 2005. With "One-piece" bogies.



C16 SEA HORSE BALLAST WAGON

Sea Horse wagons were converted from OCA wagons during 1989 & early 1990, & total 30 wagons. The wood floor was replace by a steel one. They were initially used to carry ballast from Meldon Quarry in Devon, to Hoo Junction in Kent. This ballast was used to top-up half-empty Seacow or Sealion hoppers, rather than sending them back to Meldon Quarry in Devon.



C29 "TAUNTON CONCRETE" WAGON

In the late 1950s sides were fitted to GWR sleeper wagons so that concrete products such as troughing could be carried – the low floor made unloading much easier. These worked from Taunton Concrete Works to wherever the load was destined. Some survived until the late 80s on the Southern Region, one in particular, which had been air-piped, was based at Woking. Another found its way to the Isle of Wight.



C41 SEA URCHIN BALLAST WAGON

Converted from OBA wagons in the early 1990s. The only remaining part of the OBA body seemed to be the end stanchions, the rest being replaced with new steel parts. The wagons carried a variety of liveries. Can be adapted to the type which had flat topped sides & ends.



C65 WALRUS BALLAST HOPPER

These were built in 1954, very much based on the earlier SR Hoppers. The fitting of BR plate bogies with oil axleboxes, rather than roller bearings, was a poor choice, as they were very prone to over-heating. The later Sealion/Seacows had longer end platforms (1' 4" / 5.3mm each end). They ended their days in northern England & Scotland, lasting until about 1990. With "one-piece" bogies.



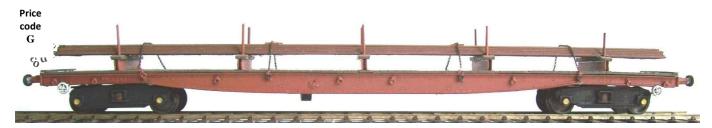
C27 SALMON BOGIE RAIL WAGON – LONG BOGIES

The Salmons are 62' 0" over headstocks for carrying 60' 0" lengths of rail or track panels. Also used without bolsters to carry bridge girders, etc. Built from the early 1950s, some wagons are still in use. Salmons had GWR style plate bogies of either 8' 0" (long) wheelbase, which were fitted to about two-thirds of the wagons, or standard 5' 6" (short) wheelbase (see C46 below). Includes "box" step fitted later to some wagons. See also C88 ASF-bogied version on page 16



C46 SALMON BOGIE RAIL WAGON - SHORT BOGIES

As C27 above, but with 5' 6" wheelbase plate bogies. The reason some Salmon wagons had short wheelbase bogies is unclear – possibly it was intended to use these on poorly maintained track, where the longer bogies might have derailed, although this would have been difficult to keep to, if the wrong wagons arrived.



C28 BORAIL BOGIE RAIL/BEAM WAGON

These are distinctive wagons, 62' 0" over headstocks, with "fishbelly" underframe and planked floor. Built during 1959-62, they ran until 1982, when 150 were air-braked with low sides and Y25 bogies becoming BRA and later, YMA PARR.



C76 WHALE 50ton BALLAST HOPPER

These larger hoppers had a roller-bearing plate bogie (this is a "one-piece" moulding) and were basically a stretched Walrus, but air-braked. The wagons were strengthened in 1968 & left the Southern Region in late 1982 after further modifications: some of them worked from a quarry near Shrewsbury. Some survived for a couple of years beyond 2000, probably in East Anglia, although their speed was restricted to 30mph.



Price code

Н

C82 STURGEON BOGIE RAIL WAGON – WITH SIDE DOORS

This is the seven doors per side "Sturgeon A" rail/sleeper ballast wagon – D1/645 type. In later years the doors were removed – see C106 below. "One-piece" bogies and pockets for "fish tail" NEM couplings.



Price code G

C106 STURGEON BOGIE RAIL WAGON – WITHOUT SIDE DOORS

As C82 but without the side doors. The end parts are separate to suit the wagon being modelled – wagons often ran without some or all of the end plates and "stanchions".



C88 EWS 50tonne BOGIE RAIL WAGON - YSA/SALMON

About 300 Salmon wagons were fitted with ASF bogies from 1998, enabling them to run at higher speeds, some as high as 75mph. "One-piece" bogies, includes "box" steps fitted to some wagons. In 2009, some wagons had large yellow-painted tubular guides fitted for loading track panels – these wagons are coded OSPREY.

British Railways Air-braked Opens



C17 OBA 31tonne WOOD-BODIED OPEN WAGON (1977-9)

The kit has the body style of the second half of the build, with unequal spacing of door hinges and straps, plus square door "buffers" rather than round. They have pivotting wheel/axleguard units turned by the couplings, and returned to a straight position by a spring. C18 – C21 below also have these, plus C16 & C41 on page 14).



C18 OCA 31tonne STEEL-BODIED OPEN WAGON (1981-2)

These followed on from the OBAs with a steel body, but retained the wood floor and "turn-over" bolsters of the OBA. (A number of the floor planks could be tipped sideways onto the adjacent plank to support the load clear of the floor and allow loading by forklift. Some were converted into Seahorse (see page 14) and OTA (see p.17).



C19 SPA 31.5tonne STEEL PLATE CARRYING WAGON (1980)

These had a distinctive chequer-plate floor and wooden cross battens. The solebar was shallower without the cut outs found on the OBA & OCA. Those used in Departmental service were ZDA Pike – later on some of the Pikes had the doors welded shut and became "Seahares".



C20 OTA(A) 46tonne GLW TIMBER WAGON (1985)

As built, OTA(A)s had either 11 or 13 stanchion sockets along each side, either of which can be made from the kit. Later some of the stanchions & sockets were removed leaving only 8 on each side. Includes a capping strip for making the flat-topped-end version. These and the OTA(C) were conversions from OCAs. Said to be all out of use by the end of 2007 (many being stored near Mossend Yard). Quite a few were scrapped on site following a serious derailment at Quintinshill on 17 June 2002, caused by a broken axle.



C21 OTA(C) 46tonne GLW TIMBER WAGON (1985)

This type had 9 stanchions. There were 25, originally leased to Thames Board to take timber to their Workington Mill, but when this traffic ended, they went back into the pool of OTA's. Some retained their blue livery for some years afterwards.

British Railways Air-braked Steel Carriers



C22 BAA 77.5tonne BOGIE STEEL WAGON

Built in the early 1970s, this type has a modern corrugated 'deck' to aid cooling of hot steel bars. There were two common types of end framing, both of which are included in the kit. Many were later fitted with cradles or boxes for coils. (Boxes & cradles are not included)



C23 BBA 75.5tonne BOGIE STEEL WAGON

Built from 1974, this is a longer version of the BAA. Usually found in block trains, they are used to carry steel coil or billets. Cradles have also been fitted to these wagons (not included).



C25 BDA 80tonne BOGIE BOLSTER WAGON

Rebuilt in 1978-9 from Bolster Ds (see C56). About 1250 wagons were given Y25 bogies & new bolsters – the kit has the type fitted to the later wagons, although the bolsters on the first 500 are fairly easy to make. Choice of lever or handwheel braking. "One-piece" Y25 bogies. These wagons were also used as Departmental vehicles, coded YAA"Brill".



C26 BPA BOGIE PLATE WAGON

These were rebuilds in 1980 of Boplate Es (see C54). Air brakes and Y25 bogies were fitted to 80 Boplate Es. 30 were used in Departmental service for carrying pointwork components, etc., and 50 were rebuilt in 1987-88 as BMA)later BNA) – see kit C89 on page 19.



C24 POA/SSA 51tonne OPEN SCRAP WAGON

The first 100 were rebuilds of PGA hopper wagons, with stepped solebars & disc brakes. The other 60 were all new with clasp brakes and straight solebars (illustrated above). Parts for both types of underframe are included. Built during 1982-84 – the kit has square side ribs "as built". The sloping plates added to the horizontal ribs can be added with plasticard strips. With 3 types of suspension & compensated W-irons. Later taken into BR ownership and coded SSA.



Price code H

0-

C89 BNA STEEL/ALUMINIUM INGOT WAGON

"Built" in 1988, this was a conversion of BPA wagons involving removal of the body and replacement with high ends, new floor planks and 13 bolsters. Almost 50 wagons were rebuilt - coded BMA, but most were changed to BNA in 1999 to distinguish them from the similar BMA wagons rebuilt in 1989 from BDAs. They carried long slabs of steel or aluminium, or smaller bars, held in place by the many stanchions, & straps attached to winches along the solebars. The unusually large number of bolsters, was presumably to avoid distortion of the load

Private Owner Wagons

Our P.O. kits represent wagons used during 1898-1948, when privately owned stock amounted to around 500,000 wagons - about half of all the wagons registered during the inter-war period. Our kits cover the body styles of a number of builders – Gloucester, Hurst Nelson and Wheeler & Gregory. However, the underframe is either RCH 1923 or Gloucester 15'/16' type. C100 & C111 on pages 4 & 5 are similar to PO types.

Transfers for most body types are available from POWsides.

15' 0" over headstocks (60mm – "short")



C30 GLOUCESTER, 7 PLANK

Fixed ends. Inside diagonal strapping. Used from the early 1900s until about the 1940s.



C52 HURST NELSON 5 PLANK

Fixed ends. Outside diagonal strapping. In use from the early 1900s until about the 1930s. Includes "rounded" & "flat" ends.





C44 GLOUCESTER 5 PLANK

Fixed ends. Inside diagonal strapping. Used from the early 1900s until the 1930s. Mostly used by smaller coal merchants. Includes raised & flat ends.



C49 GLOUCESTER 6½PLANK

Fixed ends. "Lifting" part over side door. Popular for a time in the early 1900s – they may have appealed to traders that carried goods other than coal in the summer (see also C62 on page 20).

C53 W & G 4 PLANK

Rounded end with outside strapping. These wagons were used from the early 1900s until the 1930s. Common in the Somerset coalfield, where Wheeler & Gregory's works were located.



C60 GLOUCESTER 1 PLANK

Low sided wagon for stone blocks. Single "eleveninch" plank body, which prevented overloading and made unloading easier. Several liveries for this type of wagon are available from POWsides.



C74 W & G 4 PLANK

"Raised" end, 3 plank side door and outside strapping. Used from the early 1900s until the 1930s. Common in the Somerset coalfield, they were the type of wagon used by John Snow of Glastonbury & Bristol.

16' 0" over headstocks (64mm - "long")



C36 GLOS 7 PLANK END DOOR

This type ran from 1907. Outside diagonal strapping. More likely to have been owned by a colliery or large coal supplier, to destinations where there were facilities for tipping the load using the end door.





C51 GLOUCESTER 5 PLANK

Fixed ends. Inside diagonal strapping. Used from the early 1900s until the 1940s. Includes choice of "raised" or "flat" ends.

C62 GLOUCESTER. 6½PLANK

Fixed ends. 1907 type – the prototype wagons had a lifting section over the doors. This may have been to enable loading of bagged products such as seeds or animal feed in the summer.

16' 6" over headstocks – RCH 1923 (66mm)



C32 5 PLANK FIXED ENDS

Planked floor. Based on the Glos. RCW type. Also suitable for the early BR period: some quarry owners retained their PO wagons in their own livery after nationalisation in 1948, such as BQC and ICI Limestone.



C61 5 PLANK END DOOR

RCH 1923 type. Used for china clay or roadstone. Longitudinal "planked" floor.

Transfers for "English China Clays" are available from POWsides.





C75 8 PLANK "ACID JAR" WAGON

This wagon, operated by Chance & Hunt, had 8 earthenware jars fixed with the lids protruding through a planked "roof".

Transfers are available from POWsides.

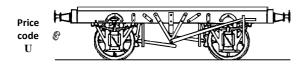
C63 7 PLANK COKE WAGON

"Convertible" type – the raves allowed a larger volume of coke to be carried, but could be removed to carry coal without overloading. With 2 plank Coke Raves and fixing bolt detail on the wagon body

Accessories

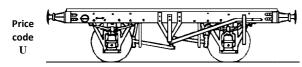
UNDERFRAME KITS:

These include headstocks (not C91/C105), solebars, buffers, brakegear & floor. Wheels & bearings are required. 3 - link or Hornby couplings can be fitted.



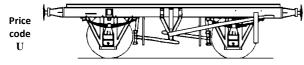
C43 GLOUCESTER 15'WOOD

15' 0" over headstocks, 9' 0" wheelbase. "1907" type. Also available as **C303** 16' 0" version with floor to suit.



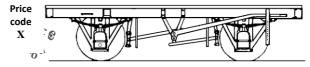
C34 RCH 1923 WOOD TYPE

Oil axleboxes. 16' 6" over headstocks, 9' 0" wheelbase.



C35 RCH 1923 STEEL TYPE

Oil axleboxes, 9' 0" wheelbase. With solebars for 16' 6" and 17' 6" wagons, plus floor for 16' 6" version. The axleboxes are separate on this underframe.



C91 RCH 10FT WB STEEL TYPE

Oil axleboxes, 17'6" over headstocks, Morton brake. "One-piece" floor and solebars. Includes buffer bodies & heads for RCH and "Oleo" types.



X 105 RCH 10FT WB "SKELETON" U/F

AS C91, but with skeleton underframe suitable for tank wagons and some hoppers. "One-piece" solebars and chassis members. Could be used to give RTR tank wagons a prototypical "open" underframe. It is not suitable for RTR-type wheels, as the flanges may jam against the diagonal chassis members.



C31 "A" TYPE CONTAINER

Small type – "plywood" body. Built by the LMS in 1944-45, 135 went to the LNER & 31 to the GWR. The SR only had 3, but built 75 more (D3027) in 1946. BR also built a batch of 110. Transfers for BR livery available from Cambridge Custom Transfers



Price code V

C42 BRAKE HANDWHEELS

11 pairs hand brakewheels in various styles. Also suitable for control wheels on tankers and hoppers, etc. Two mouldings, as shown above, per pack.





C40 COMPENSATION UNITS

2 units (for a 4 wheel wagon) – as used on our POA wagon. Includes a choice of spring types: Gloucester (2 types), ESC (4 spring) & Bruninghaus (leaf). With fold-up "W" irons on which the chosen suspension detail is fitted. Includes brake shoes and handwheels. (Wheels and bearings required)

Price code T

Price code

C45 TIE BARS FOR 10'0"WB WAGONS

Five pairs of etched brass tiebars for 10 foot wheelbase wagons. Can be used for vacuum brake conversions, which usually had these fitted, and for replacing plastic ones that are broken or bent. Includes brake cylinder operating arm.

C300 TIE BARS FOR 12'0" WB WAGONS C305 TIE BARS FOR 9'0" WB WAGONS C306 TIE BARS FOR 9'6" WAGONS

These have five pairs of tiebars as C45 above, but they do not include the brake cylinder operating arm. C300, C305 & C306 are brass.

Bogies

Two per pack for one wagon – side frame, stretcher, bolster and mount for Hornby couplings (wheels and bearings required). Wheelbases are all 22mm, except C38 Y25: 23·75mm, and C39 FBT6: 26mm



C39 FBT6 BOGIES

Bogie type fitted to iron ore wagons and nuclear flask wagons. Fold-up side frames and stretcher. (Illustration shows a Hornby coupling – these are not included)

The bogies listed below all have "one-piece" sideframes and stretcher, with separate axlebox fronts (except C69). They all require wheels and bearings – fit these into the frames and you will have a free-running bogie. The bogies are attached to the bolster with a 3mm screw and nut. There is a choice of three positions for the coupling mounting plate (suitable for Hornby or Bachmann "Mini" couplings) allowing the bogies to be fitted at various distances from the end of the wagon.



C37 GLOUCESTER BOGIES

These were found on various BR wagons including Sealions, Boplates and Bolster wagons. Choice of axleboxes ("triangular" and round) and vacuum brake cylinder, etc.



C38 Y25 BOGIES

Choice of disc or shoe braking; & bogie-mounted brake wheel. Fitted to a variety of "modern" wagons. Includes some air-brake "equipment": tank, distributor etc, as used for the BPA wagon kit.



C68 BR PLATE BOGIES - OIL A/B

These were found on a variety of BR wagons As used on our Walrus, Boplate E (as in the picture) and Bolster D.



C69 BR PLATE BOGIES - ROLLER A/B

These were found on a variety of BR wagons As used on our Whale kit (available 2008) These were fitted to various BR wagons. (On these bogies the bearings form the axleboxfronts)



C70 SR "CAST" BOGIES

As used on the SR 1947 Hoppers (as in the picture), and also on some of the SR bogie rail wagons. There were similar bogies on some early Southern Region track machines, and BR ballast cleaners.



C71 SR DIAMOND FRAME BOGIES

As used on SR 1928 hoppers and some SR bogie bolster/rail wagons. They are also similar to the LSWR bogies used on their hopper & bolster wagons.

WHEELS FOR KITS

Alan Gibson wheel types as shown on the right. Supplied in pairs (two axles) with brass bearings. These have 26mm axles. All types can be supplied for **OO**, EM and P4/S4

Please specify the gauge when ordering, otherwise OO wheels will be supplied. Use Codes G4Exx for EM and G4Sxx for P4/S4



G4000 12mm 8 spoke



G4001 12mm 8 "open spokes"



G4006 12mm 10 spoke



G4002 12mm 3-hole disc

sets. Bearings are also available separately in

Price code W

For all types

inc 2 axles and

4 bearings

Remember

that bogie

wagons need 2

packs of 4 or



G4O07 10.5mm "lowmac" disc also available as G4008 10 spoke and G4O17 8 spoke (not shown)

G4O13 12mm "brake disc" (not shown)



C72 BR "RIDE-CONTROL" BOGIES

Davis & Lloyd type. Used on BR bogie wagons, etc., such as Bolster E & "Rectanks". Often called "Ridemaster" bogies, but the actual frame casting was marked "RIDE-CONTROL".





C73 GWR PLATE BOGIES

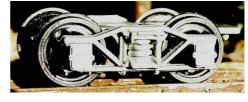
Bogie type fitted to various GWR wagons, such as Bogie Loco Coal wagons and Crocodiles. This type does not have outside angle-iron bracing.



C90 ASF "3-PIECE CAST" BOGIES

As fitted to Salmon wagons. Use to modernise your existing Salmon wagons, etc., or for the OSPREY conversions of Salmons in 2009.





C94 LNER DIAMOND-FRAME BOGIES

With single "flat coil" spring. As fitted to Quint D wagons, and some other LNER wagons. Similar bogies were fitted to NER wagons, but these may have been fitted in LNER ownership

Useful Stuff

- Suitable paints are available from Precision Paints & Railmatch PP numbers are quoted in kit instructions. Transfers for early BR and pre-BR era wagons are available from HMRS. Transfers for BR-era kits (not-air-braked wagons) are also available from Cambridge Customs Transfers: sheet S2A for kits up to C56, and S2B for kits from C57; and some kits have their own sheet/s. Our BR transfer sheets are available from Modelmaster: CT2 Air-braked is Sheet 4866 & CT4 Departmental is Sheet 4867.
- A new range of transfers for many of the kits is now available from Old Time Workshop (<u>www.oldtimeworkshop.co.uk</u>) 69 Windsor Street, Bletchley, Bucks MK2 2LN and direct from us.
- A variety of transfers for Private Owner Wagons is available from POWsides.
- Transfers for Cambrian Railways kits C100 & C111 are available from CamKits/Welsh Railway Research Circle (wrrc.org.uk/news022.php)
- Suitable adhesives for assembling kits are Humbrol Liquid Poly or Revell Contacta Professional (blue bottle with a metal tube, avoid the brush-type which has a clear bottle).
- Availability: model shops in most areas stock our kits, or they can be obtained from mail order firms see stockists' page on our website or adverts in model railway magazines.
- If you have difficulty in obtaining our kits, we can supply direct although we may not always be able to supply items from stock: we are a small manufacturing business, not a warehouse. See below for our address & telephone number (please ring between 2pm and 4pm).
- UK postage starts at £1.80 for 1 small kit (except C11/C12 which are £4.80) and rises in steps to £4.80 depending on weight. We are happy to post throughout the world. Overseas deliveries are free of UK VAT (divide by six and multiply by 5) but may incur import sales taxes and handling charge which will be collected by the carrier.
- We prefer to process all orders via our on-line shop at www.cambrianmodelrail where you can see availability and pay by credit or debit card.
- We can also take orders by phone or post, where cheques need to be payable to Cambrian Model Rail Ltd.
- Loads, wheels, couplings, transfers, etc., shown in illustrations are not included.
- Our kits are intended for assembly and use by adult modellers. They contain small parts and should be kept away from young children (under 36 months) before and after assembly.
- We also have a range of 16mm scale narrow gauge parts for scratchbuilders, which you can view on our website or in our separate catalogue.

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