

Preparation

Basic items required are craft knife, tweezers, pliers, light flat and round files, liquid plastic cement, light abrasive paper ('wet and dry') and paints. Note some parts (18, 23, 24, 29, 33, 34) are moulded in ABS. This tough plastic may not be softened by weaker liquid cements, it can however be secured by 'super glue'.

Construction

Smooth off the round ejector pin marks on the ends (3 and 4), lower side (2) and doors (7 or 8). Assemble the coupling chains (28) with either three links for the wagons as built or using the Instanter link (29) as the middle link as applied for replacement couplings from the early 1960's. Attach to eye hole of each coupling hook (27) and insert through buffer beams of each end (3 and 4). Slide on spring (30) and bend ends of coupling hook back over the spring to retain it. Choose either the pressed steel doors (7) with which the wagons were built or the fabricated doors (8) used as replacements and fit them, hinges downwards, into the lower sides (2). Make sure the sides are not distorted with the doors fitted.

Attach both ends (3 and 4) to the floor (5). Note that the floor sits on the ledge at the top of the buffer beam. Then attach both lower sides (2) with their bottom edges resting on the ledge at the sides of the floor. The lower sides should fit against the inside of the side stanchions on the ends. Then add the upper sides (1) to rest on top of the lower sides also with their end edges against the inside of the end stanchions. When the joint between the upper and lower sides is quite set it should be smoothed off with light abrasive paper (wet and dry) and if necessary any gaps filled with modellers putty or fine Polyfilla. After the solebar (9) has been fitted the two inner side stanchions (12 and 13) can be fitted. Fit them onto the slightly raised vertical strips on the sides either side of the doors.

Assemble the chassis. Make up the sole bars (9) by fitting 'W' irons (10) to the side pockets on the solebar backs and to the centre pockets, Vee hanger Y (11). Add the sole bars to the slots on the underside of the floor (5). Make sure that the slots are clear and take the sole bars cleanly. A dry fit, springing the sole bar into place, before applying the liquid cement is a useful technique. Cement in the chassis members (6) to fit between the ends and the solebar backs. Assemble the axle boxes by cementing the fronts (17) to their base plates (16). Use bearing cups (14) to line up. Check the axlebox backs (15) can move freely in the 'W' irons (10) and then push the brass bearing cups (14) into the axle box backs, insert into the 'W' irons from behind and fit in the wheels. For part (15), the correct way up is for the axle hole in the bottom half of the moulding.

Put a drop of 'super glue' on the end of each bearing cup (14) and add the axle box front assembly (16/17) or cement (16/17) to (15). In any case ensure that the assembly moves freely on the axle guards and that the wheels turn freely.

Assemble the brake gear. This wagon has identical sets of brake gear on both sides - this is known as 'independent' brake gear. Remove the ejector pip 'Z' on of the brake shoe mouldings (36) and add the safety loops (35). Attach to the under side of the floor (5) against the chassis members (6) and in line with the wheels as shown in the diagram. (For clarity the diagram shows the brake shoe on only one side of the wagon) The brake shoes have a close fit with the wheels and any flash on the shoes should be cleaned off. The clearance of the brake shoe and wheel can be adjusted by adding to or removing material from the brake shoe hanger, where it contacts the chassis member.

Feed the plastic rod (21) through the Vee hangers (11) and the brake shoe mouldings (36) already on the wagon. Add the brake lever guides (20) to the brake levers (19). Gently bend the levers outwards from their pivots and inwards again nearer their mid points so that the brake lever guides rest square on the sole bars. Thread the outer Vee hangers (18) onto the plastic rod (21) and cement their upper ends to the middle of the solebars (9). Add brake levers (19) to the rod (21) and cement the brake lever guides (20) to the solebar. Cement the various pieces to the plastic rod (21) and cut off the surplus rod from the front of each brake lever and the inside of each inner Vee hanger (11).

Attach the door springs (33) to the solebar (9) under the centre point of each door. Add the door hinge bases (31 and 32) under each door hinge to the solebar (9). The operating lever for the floor doors (34) should be fitted as shown to the underside of the sole bars on each side of the wagon.

Assemble the buffers. Take four buffer casings (24) from the middle of the sprue and attach the casing rings (23) to the end of each casing. Clean any flash from the inside of the casings gently with a small round file and check that the shafts (22) can move freely in the casings. Slide the spring (25) onto the shaft (22), insert into the casing (24) and secure with the 12ba nut (26). The distance from the buffer head to the base of the casing should be adjusted to 10.5mm. The buffer casings make a tight push fit into the buffer holes on the ends (3 and 4). Note that the short web on the casing should go uppermost.

Painting and Lettering

Throughout their BR lives these wagons were painted with grey bodies with the side stanchions grey all their length. (Rail Match 322) before 1964 and (309) thereafter. About this date the buffer beams and buffer casings were also painted grey. The chassis and running gear were black with the brake lever handle in white to aid visibility. The lettering was painted onto matt black patches on the body as indicated. Remember to paint on these patches before adding the transfers. The diagonal flashes on the side doors was to indicate the wagons had bottom doors and the diagonal stripe on the wagon side shows the end door end of the wagon. As these wagons were withdrawn in the middle 1960's it is unlikely any were painted in the later colour except as possibly a patch repair. Government built wagons were bauxite in colour when constructed.

This kit is supplied with self adhesive transfers. Ensure that the completed model is free from dust and grease. Remove the protective tissue and with a sharp knife cut lightly round the transfer required but not through the thick backing paper. Lay the transfer gently on the model, adjust to the final position and then press down firmly. Soak the tissue with water and peel off after 20 -30 seconds. Wash of gum and blot dry. Varnish if wanted. Cellulose varnish should only be air brushed on.

Variations

About 700 iron ore tipplers using this general design were built by Chas. Roberts for Stewarts and Lloyds in 1939/40. They lasted into British Steel Corporation ownership. They were devoid of side, end and floor doors and had Morton brakes. Parts for this type of brake are included in the chassis parts and extra plain ends are obtainable at a small charge from us.

Historical

This wagon dates from the 1930's when the wagon builders Chas. Roberts produced this design intended for private owners. Its main feature apart from all steel construction was the sloping sides whose load was carried directly by the sole bars without the need for any intermediate support thus saving on weight and construction costs. During the Second World War there was the need to replace vehicles from the fleet of requisitioned private owners wagons. This design was chosen by the Ministry of War Transport for this task and just under 8,000 were built. In the Spring of 1945, 2691 were shipped to France to supplement that countries war ravaged rolling stock. Of these 1,892 were later repatriated to the by then British Railways in the early 1950's. (The remainder stayed in France as ballast wagons). Thus by the early 1950's about 7,200 ex Government vehicles were in service with 'B' prefix numbers and an estimated 2,300 ex private owner wagons with 'P' prefix numbers. Principal traffics carried were coal and scrap metal. General withdrawal took place in the middle 1960's. But as witness to the quality of the design many still had useful years ahead and were sold to companies with private railway systems for internal use.

Number Series; B 197000 - 198891 (ex French wagons) and with some gaps B 3002 - 6415; B 6431 - 11850. Numbers of 'P' prefix wagons are not recorded.

References: British Railway Wagons, Rowland, Leopard.
Illustrated History of BR Wagons, Bartlett etc., OPC.
Modellers' Back Track Vol 1 Nos 3-5.
BR Standard Freight Wagons, Larkin, Bradford Barton.

We also produce models of the BR standard 16 Ton Mineral Wagon (1/108), 21 Ton Mineral Wagon (1/107) and 24.5 Ton Mineral Wagon (1/115).

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