

PARKSIDE DUNDAS

Instruction Sheet

PS30 BR 16 TON MINERAL WAGON (Diagram 1/108)

Preparation

Basic items required are craft knife, tweezers, pliers, light flat and round files, liquid plastic cement, 'super glue' and paints.

Construction

Assemble the coupling chains (9) with either three links for the wagons as built or using the Instanter link (32) as the middle link as applied for replacement couplings from the mid 1960's. Attach to eye hole of each coupling hook (8) and insert through buffer beams of each end (2 and 3). Slide on spring (10) and bend ends of coupling hook back over the spring to retain it. With the brass wire provided, make two staple shapes (4), 5.5mm long and with arms 2.5mm in length. Insert these into the holes on the end door (2), cement and smooth off on the inside.

Note that there is a small lug onto the ends of the sides (1), marked 'W' on the exploded diagram. Remove the left hand one from one side and the right hand one from the other. Attach the plain end (3) to the floor (5). Note that the floor sits on the ledge at the top of the buffer beam. Then attach both sides (1) with their ends with the lug 'W' still in place next the door end. Attach the door end (2). Cement the corner caps (7) on each corner of the body and fix the corner pieces (6) above the end door as indicated.

Assemble the chassis. Make up the sole bars (11) by fitting 'W' irons (13/14) to the side pockets on the solebar backs and to the centre pockets, Vee hanger X (15) on one sole bar (16) and Vee hanger Y (17) on the other. Note 'W' iron (13) is at the left on both sole bars and (14) is at the right. Add the sole bars to the slots on the underside of the floor (5). Note that the solebar with Vee hanger X goes on the side of the wagon with the end door to the left. 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 (12) to fit between the ends and the solebar backs. Assemble the axle boxes by cementing the fronts (24) to the base plates (23). Use bearing cups (21) to line up. Check the axlebox backs (22) can move freely in the 'W' irons (13/14) and then push the brass bearing cups (21) into the axle box backs, insert into the 'W' irons from behind and fit in the wheels. For part (22), 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 (22) and add the axle box front assembly (23/24) or cement (23/24) to (22). In any case ensure that the assembly moves freely on the axle guards and that the wheels turn freely.

Assemble the brake gear. Remove the ejector pip 'Z' on of the brake shoe mouldings (25) and add the safety loops (26). Attach to the under side of the floor (5) against the chassis members (12) and in line with the wheels on the side with Vee hanger (X). 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. Trim the lip from the underside of the chassis member where the safety loops fit to it.

Add the brake lever guides (20) to the plain (18) and 'cam' (19) brake levers. 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. Take the plastic rod for the cross shaft (16) and thread it through the Vee hangers and the brake gear centre crank. Fit the brake levers, with (19) attached to Vee hanger X (15) above the rod and (18) attached to (Y) with the rod through its pivot. Cut off the surplus rod from the front of each brake lever.

Attach the door springs (33) to the solebar under the centre point of each door. These are moulded in ABS and 'super glue' can be used to fix.

Assemble the buffers. Take four buffer casings (30) from the middle of the sprue and attach the casing rings (29) to the end of each casing. These are moulded from ABS and may not be affected by weaker liquid cements. In such a case use either 'super glue' or ABS cement. Clean any flash from the inside of the casings gently with a small round file and check that the shafts (27) can move freely in the casings. Slide the spring (28) onto the shaft (27), insert into the casing (30) and secure with the 12ba nut (31). 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 (2 and 3). Note that the short web on the casing should go uppermost.

Painting and Lettering

Throughout their lives these wagons were painted with grey bodies, (Rail Match 322) before 1964 and (309) thereafter. About this date the buffer beams and buffer casings were also painted grey. Examples with grey sole bars were also noted. 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.

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

Several variations can be built using parts contained within this kit. Using the outside Vee hanger (34) and brake lever (18), the earlier LMS diagram 2134 and BR diagram 1/106 with double brakes can be represented. Part (35) is the release lever for wagons fitted with bottom doors. Some of the earlier diagram 1/108 wagons also had double brakes (B 70400 - 72599). During construction and subsequently with modifications and repairs all sorts of variations emerged. These are best found by study of contemporary photographs.

Historical

This was the design eventually settled upon by BR in the early 1950's as its standard general purpose mineral wagon. It was based on earlier LMS and Ministry of Transport wagons but its construction was all welded and significantly was suitable for mass production. This was important because Britain was planning to increase coal production and there were also a large amount of former privately owned wooden coal wagons, which were near life expiry. Vast quantities were built in an operation which was an unparalleled feat of rolling stock construction. For instance, The Pressed Steel Company was contracted to build 10,000 a year at a purpose built factory at Linwood near Paisley (probably better known now for the Hillman Imp of the 1960's). Well over 200,000 were built. Two important developments of the design were the rebodging of many wagons from the early 1970's without top doors on the sides and also rounded bottom edges to the sides and also the fitting of about 5,000 with vacuum brakes using the original Morton brakes again in the 1970's. There were many other variations. A number of excellent books and articles contain more detailed information. Some of these are indicated below. The main traffic was of course coal, for domestic, industry and export. Another important flow was scrap metal. Other traffics such as sugar beat or agricultural limestone from County Durham to Eastern Scotland could use large quantities of wagons in season.

Number Series B 72600 - 108360, 110361- 124810, 125611-16860, 129361-147493, 148461-157221, 159072-213197, 214833-228108, 228709-229208, 229253-230008, 230709-244108, 244609-248608, 249609-260308, 260609-261308, 264209-265158, 265209-265708, 267709-268708, 271209-272208, 273209-279658, 550500-551449, 553000-554429, 554900-555749, 557050-557599, 560200-587299, 593700-594749, 595500-595699.

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 21 Ton Mineral Wagon (1/107) and 24.5 Ton Mineral Wagon (1/115).

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