

# PARKSIDE DUNDAS

## Instruction Sheet

## PS21 BR 21 TON TRESTLE 'EA' WAGON Diagram 2/ 490

### Preparation

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

### Construction

*Note that some of the sprues in this kit will contain some parts used in other kits and not required for this model.*

Assemble three link coupling chains (6) and attach to eye hole of each coupling hook (4) and insert through the buffer beam of a welded end (2). Slide on the spring (5) and bend ends right over spring to retain it. Fit etch parts 'F' to the side (3) and 'G' to the sub floors (39).

Assemble body. Cement both ends of floor (1) together with ends marked 'V' together. Attach one end (2) to floor (1) . Note that the floor sits on the ledge above the buffer beam. Add the solebars (7) to the slots on the underside of the floor (1), and fit the remaining end. Then fit the chassis members (8). Add the bolster pin keepers (10) to the solebars directly underneath the holes in the floor and above the wheel centres. Fit the side (3) to one side of the floor. Note that the bottom of the side is level with the underside of the floor and that the top of the side is lower than the ends of the wagon. To the other side of the floor add the two side pieces (3A) to widen the floor to be level with edge of the wagon ends.

Assemble trestles. Clean off ejector pin marks on mouldings. Make up the two horizontal planks (36) from their two halves. This is best done on a smooth flat surface. Make sure the recesses are on the same side. Trim the recesses in the uprights (37) so that the planks will lie flush in them and construct the trestles with them and the cross pieces (38) as shown in the diagram. Clean out the semi circular locating holes in the floor. Fit the feet of the trestles into these holes and cement into place. Make up the chain pockets (39, 40, 41, 42) as shown in the diagram. The lugs should go on the underside of the sub floors (39) and these will locate into the bolster holes in the main floor (1). It is helpful to fix in the chain pockets once the etched parts have been fitted.

Etched parts. All half etched lines should be folded inwards except part D which forms an acute angle and should be folded outwards. Make bolt heads by pressing in from the back of the etch with a scribe point or similar on the bolt dots. Etch 'A' may require the trestle part to be softened by liquid cement to get it to fit snugly. Etch 'E' is only attached to the two outer uprights (37) and its fit will be improved if the bolt head impressions are not made in the corresponding section of etch 'C' that fits under it. The etched parts may be fixed in with 'super glue'

Fit the 'W' irons (12) into the pockets on the backs of the solebars (7). Attach the tiebars (13) across the bottoms of the 'W' irons. Cement the gusset plates (9) between the solebars and the underside of the floor.

Cement the springs (14) onto the front of the 'W' irons. Leave a gap of 0.5mm between the top the spring buckle (in the middle of the spring) and the stop on the bottom of the solebar. A small gauging piece is included with the brake levers moulding to help with this setting.

Push the brass bearing cups (23) into the axle box backs (17). Insert into the 'W' irons from behind and put a drop of 'super glue' on the end of each bearing cup (23) and add the appropriate axle box front (18, 19 or 20) . Insert wheels and check that they turn freely. Alternatively cement the axle box fronts and backs together. In any case ensure that the axle box assembly moves freely on the 'W' irons and this will give a measure of compensation.

LNER built wagons used that companies axle boxes (19), while the LMS used (20). The BR built batches being constructed in a period of shortages and dislocation in the railway industry appear to use a mixture of the foregoing as well as the BR style (18). By the time these wagons had been rebuilt from the previous bolster wagons, axle box types would have become mixed in the ordinary course of repairs.

Cement the large Vee hangers (15) into place behind the solebars (7) at their mid point. On one side only cement the small Vee hanger (16) to the right of centre immediately below the four rivets on the solebar. Add the brake lever guides (24) to the brake levers (25 and 26). Gently bend the brake levers outwards from their bottom ends so that the brake lever guides rest square on the solebars. Note that for the cranked brake lever (26), the small crank at its left hand end should have its moulded bend further bent so that it pivots behind the large Vee hanger and fits in front of the small Vee hanger. A drop of liquid cement at the appropriate point before commencing the bending operation will assist the process. Note that as in practise the

Slip the safety loops (29) onto the brake shoe mouldings (28) and attach the assembly to the cross members under the floor with the brake shoes in line with the wheels. Position the brake shoe mouldings with reference to the side drawings. Cut a piece of the plastic rod to fit between the centre pivots of the brake shoe mouldings as the cross shaft (27).

The cross section diagram shows the location of chains and fixing points and also the method of securing loads. Assemble the holding loops and chains as indicated. Attach the hooks (43) to each end of the screw shackle (44) by means of one link of the thin chain provided. Each hook can be connected to a length of the thick chain. The other end of the chain lengths can be link into the etched loops (H), which themselves should be linked onto the fixing points (F and G) For an empty wagon the chains would normally be secured in the bottom of the wagon. Thick plasticard makes excellent plates.

Assemble buffers. Choose the four buffer casings (32) from the middle of the sprue and with a spot of 'super glue' attach the buffer casing ring (33) to the end of each casing. These parts are moulded from ABS material which is not amenable to ordinary plastic cement, although certain of the stronger brands will make a good bond if the parts are pressed together for a few seconds. Slide the spring (31) onto the shaft (30) and secure with the 12 ba nut (34). The buffer casings make a tight push fit into the buffer holes on the buffer beam. Note the short web on the casing should be uppermost.

### Painting and Lettering

BR. Body including verticals on buffer beam, grey (Railmatch 322 to 1965, thereafter 309 and buffer beam all grey); Chassis, running gear etc., black. Lettering was done on a black panel. The trestle structure would be of unpainted wood although the metal work on it would be painted probably black.

To apply the self adhesive type transfers supplied with this kit, first ensure the painted model is free of grease and dust. Remove the protective tissue from the transfer sheet and with a sharp knife cut lightly round the transfer through the tissue only and not through the heavy backing paper. *Warning; this transfer uses a stronger gum than we have used previously.* Lay the transfer very gently on the model, adjust as necessary and then press down firmly. Soak the tissue with water. Leave for 20 - 30 seconds and peel of the tissue. Wash of surplus gum and blot dry. Varnish if wanted , but cellulose varnish should only be air brushed on.

### Historical

These wagons were rebuilt from surplus but modern Double Bolster Wagons in the middle 1950's, to Diagram 490. Examples from LNER, LMS and BR construction were chosen apparently at random. The trestle structure allowed steel plates wider than the 'loading gauge' when carried flat to be carried safely at an angle of 45 degrees to the horizontal. Further changes in the steel industry, particularly the decline in ship building, made these wagons redundant by the early 1970's.

Sample Numbers; E 286410, E 260259; M 726007/44/54/149/223,429;  
B 920001/16/44/56/59/78/87/89/116/200/201/203/213/215/272/319/322/339/361.

Typical tare weight; 9-13

References. LMS Wagons, Essery, OPC., British Railways Wagons, Rowland, David and Charles, and British Railways Revenue Wagons, Bartlett et al, OPC, BR Standard Freight Wagons, Pre Nationalisation Freight Wagons, Larkin, Bradford Barton

### Other Wagons In This Series

We have a series of steel carrying wagons. Available are an LNER welded end / BR riveted end Plate Wagon (PS19), an LNER, LMS, BR Double Bolster Wagon (PS20), and a version of the Plate Wagon with riveted sides, which will gives the first LNER and LMS versions of the 20 Ton Plate Wagon (PS21). We also have a BR Pipe Wagon (PS17).

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