

2297 2298 Compensating W Irons – BR Types

Each fret comprises the main suspension components and a set of screw couplings. Please read the instructions and familiarise yourself with the parts and options before bending, gluing or soldering them. All half etched fold lines are in the inside of the fold

Step 1

Separate the main components from the fret and clean any remaining 'tabs'

Step 2

Place the etch on a piece of hardboard or something similar and emboss the rivets in the chosen bridle using a scribe or old compass point. The etched depressions act as a guide.

Step 3

BR W irons usually feature 1 or 2 'hook' holes. Where there is only one such hole this is usually at the outer end of the wagon. Because of the various permutations drilling these 'hook' holes has been left to the builder. Use a 0.82mm (No 67) drill with the half etched depressions as a guide. It is recommended that the number and location of these holes is checked if prototype information is available.

Fold the bridles through 180° with the half etched fold lines on the outside of the bend and fold the W Irons through 90° with the fold lines on the inside of the bend.

Step 4

Fold the sides of the unit to form a box. Again the fold lines are on the inside of the bend.

The 4 tabs (Z) will naturally protrude upward.

Repeat the first four steps to form a second unit. This should be identical, give or take the positions of the hook holes.

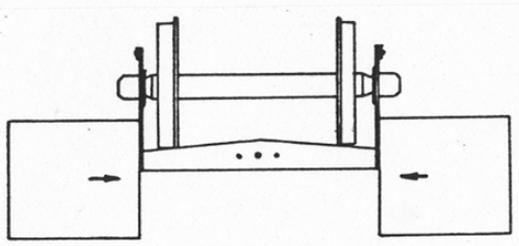
One of these assemblies will be fixed and the other will 'rock'; at the other end of the wagon.

Step 5

Remove or fold down the tabs (Z) on the rocking unit.

Step 7

Fit two brass bearings (MJT 4009 or 4010) into the holes in the W-irons (the holes may need opening out slightly with a round needle file or broach). Although not necessary it may be more convenient to glue or solder the bearings into place. Ease the wheel set between the bearings. You may find the wheel sets are a loose fit between the bearings but this can be controlled by soldering the corners of the units or placing them between the smooth jaws of a vice and gently squeezing them together (don't overdo it). Because subsequent removal of the wheel sets is likely to loosen the units again it is suggested that this operation is left until after painting or chemiblacking.

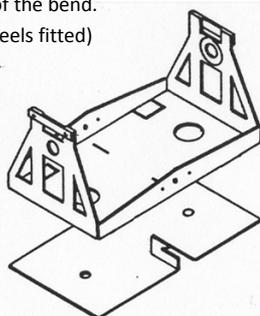
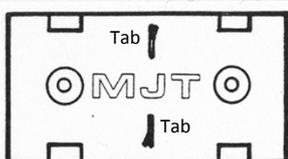


Step 8

Fold the two tabs on the mounting plate for the rocking unit; once again with the half etched fold line on the inside of the bend.

Fold the two tabs on the mounting plate for the rocking unit; once again with the half etched fold line on the inside of the bend.

The suspension unit (shown without the wheels fitted) attaches to the mounting plate as indicated.



Step 9

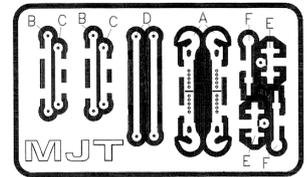
Check that the etched slots in the rocking W-iron are clear enough to allow the tabs of the mounting plate to pass through, if not use a scrap of etch material to ease out the slots. Place rocking unit on mounting plate and bend the ends of the tabs in opposite directions sufficient to locate the unit without restricting the rocking action.

Finally try the units in place to see if any packing is required to adjust the height of the vehicle before finally gluing or bolting the units to the wagon floor

Etched Coupling

The various components can be identified from the diagram

- A Coupling hooks
- B Scale length lower link or over scale upper link (see Note)
- C Scale length upper link
- D Over scale lower link
- E Screw gear
- F Screw handle



Before removing the links and screw gear from the etch, check the hole diameters. Where necessary, open with a 0.5mm (No.76) drill. Do not open the five holes along the shank of the coupling hook at this stage.

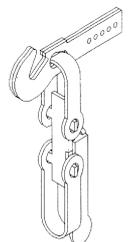
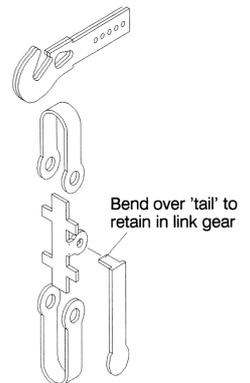
Remove the components from the fret. Fold the hooks (part A) through 180° with the half etched fold line on the outside of the fold. Solder together and clean the edges to 'square them off'. If desired the hook can be tapered as with the prototype.

Take the screw link etch and bend the ring through 90° with the half etched fold line on the inside of the bend. This is not 'structural' but may be strengthened with a small solder fillet if preferred.

Note: Scale and 'over scale' etched links have been provided. Unless you are using sprung buffers throughout and have very gentle curves it is likely that the over scale links will be preferable.

Select the appropriate length link and assemble as in the diagrams. The upper link should be shorter than the lower link

The completed coupling may be glued or soldered into the headstock. However, for a stronger fixing, establish which of the five holes in the shank of the hook is closest to the back of the headstock. Drill this out to 0.45mm (No.77) and retain with a short length of brass wire.



Dart Castings

17 Hurst Close
Staplehurst Tonbridge
Kent TN12 0BX

www.dartcastings.co.uk

