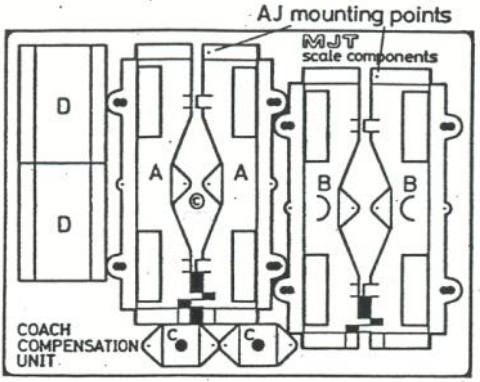
MJT Torsion Bar CCU Assembly Instructions

INTRODUCTION.

This C.C.U. kit should contain a brass etching comprising the main components, a length of torsion wire, and two 7mm press studs.
Items required to complete this unit are 4 axles of your favourite coach wheels, plus 8 brass axle bearings.
Note. Variations in axle bearings may result in the requirement for some 2mm spacing washers. Peco 2mm fibre washers are ideal.

Typical etch.



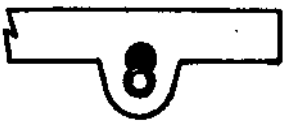
The etch contains two pairs of side frames (parts 'A' and 'B'), parts 'B' featuring additional tabs which act as stabilizers. - It is important that the pairs are correctly matched during assembly. Also present on the etch are two centre bolsters (parts 'C'), and two mounting plates (parts 'D').

ASSEMBLY.

1) Separate the components from the etch and clean up any remaining tab marks. With the exception of the two Alex Jackson mounting points marked on the component diagram, open up all the small holes in parts 'A', 'B' and 'C' with a No. 66 drill. The larger holes in parts 'A' and 'B' are to receive the axle bearings, so these need to be opened up to 2mm.
2) Fold up both pairs of side frames keeping all half etched lines to the inside of the bends.
3) There are a couple of tabs on the side frames which do not contain

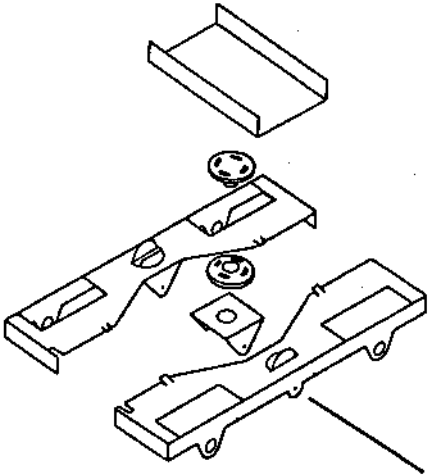
half etched fold lines. The longer ones should be bent up to an angle of approximately 25 degrees, and the shorter tabs on the opposite side frame should be bent down by approximately 25 degrees. These tabs are used to limit the amount of movement of the assembled units.
4) Fold up parts 'C' and 'D', once again with all half etched lines on the inside of the bend. Take the press studs and separate the two halves. The male part of the pair is soldered into the half etched circles on parts 'D'. The female halves are soldered to parts 'C' after opening up the central hole, so that the component can be correctly seated on the etch.
5) For CCU's ref 2223 and 2224 decide which set of bearing holes are to used. The majority of bogies require the use of the lower holes, however bogies with 'dropped' frames (i.e. Gresley) require the use of the top holes.
6) Take a length of the torsion bar and thread it through the small holes in one of the side frames, so that a small amount protrudes through to the outer face. Solder the torsion bar to the inner face of the outer side of the side frame (see diagram).
7) Thread on one of the central bolsters and after lining it up solder the inner face of the bolster on the side furthest away from the side frame. Thread on the matching side frame of the pair.
8) Place the axle bearings and the wheel sets in position in the correct bearing holes (Blu-tack will hold the bearings in place temporarily) and check that the axles are held with little slop (a fibre washer between the bearing and side frame should correct this if necessary). Hold the two side frames together, and in line, with a piece of masking tape. When you are satisfied that the axles are under the correct tension, solder the torsion bar to the second side frame, again on the inner face of the outer edge. The masking tape may now be removed.
9) Repeat the process for the other bogie.

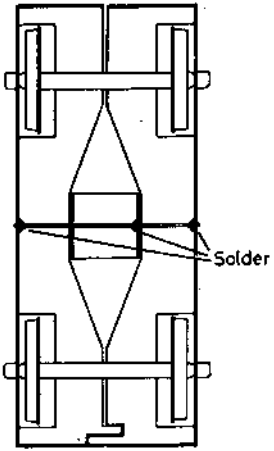
Additional notes for CCU's 2223 and 2224.



Bearing in standard position

Bearing in 'dropped' position





FITTING THE UNITS.

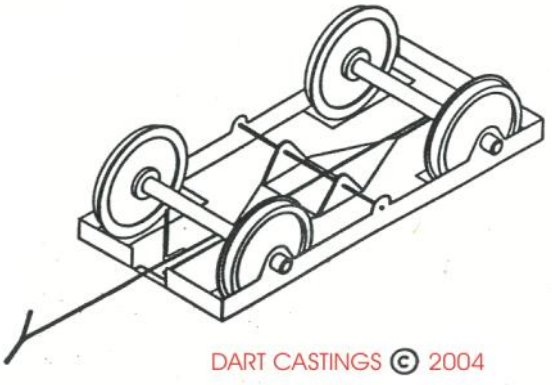
If these units are to be fitted to a proprietary coach it may be necessary to remove any moulded projections on the coach floor around the bogie positions.

Re-join the press studs and try the bogies in place on the coach, to determine if any packing is required between the coach floor and the two mounting plates. Once this has been established separate the press studs and glue the mounting plate to the coach floor. When dry, reattach the bogies and test run the coach on a suitable piece of track.

After trimming back any surplus torsion bar, cosmetic bogie side frames may now be added to choice. Any side frame can be used providing they are to a corresponding wheelbase (small variations can be accommodated by using Kean Maygib Waisted brass bearings Ref KM473). All that is required is for any rearward projections to be cut off and the back filed flush.

FITTING ALEX JACKSON COUPLINGS

A lot of modellers like to use Alex Jackson couplings. This kit has been designed with the use of these couplings in mind. To assemble, proceed as above, except for the removal from one end of each pair of side frames the small squares of brass which have been half etched. These provide the necessary clearance for the coupling to move. The other difference lies in the opposite end where a mounting hole is provided for the shank of the coupling to be soldered to the bogie. The prepared coupling should be threaded through between the torsion bar and the upper face of the central bolster. (See diagram).



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