

# STEPHEN JOHNSON

STEPHEN JOHNSON MODELS  
PO Box 31  
RED ROCK 2456

## 2TM BOGIES Assembly Instructions

Clean any flash from the side frame castings. Position the etched bogie frame over each casting and mark the location of the axle holes.

Fit the waisted bearings in the etched holes in the bogie frames with the flange on the inside of the bogie i.e. the side with the half etched fold lines (Photo 1). Small holes may need to be opened up with a tapered broach or if you don't have one of these, a round file.

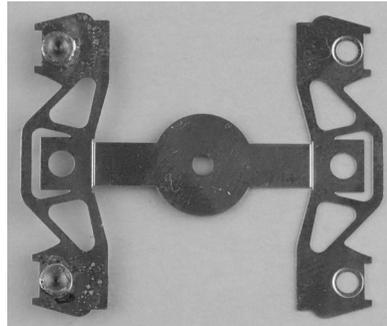
Fold the sides of bogie frame towards the half etch line until they are at 90° to the bolster. Fold the bolster overlay as shown in Photo 2. Fit the bolster overlay *under* the top of the bolster of the bogie frame.

Check the assembly is straight and square, then solder all the joints. Flexing each side outwards an equal amount, insert a 10.5mm 4 hole disc wheelset with a 23.8mm axle into the bearings at each end.

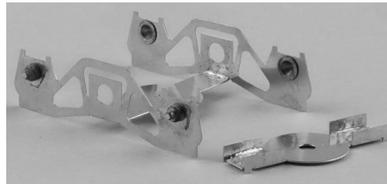
File down the tips of the waisted bearings to reduce the distance they protrude from the frame (but not to the extent that the bearing surface is exposed). Centre punch the middle of each axle hole marked on the back of the casting and drill a 1.8 mm hole. Open out the top of each hole with a 2.3 mm drill to allow the casting to clear both bearings. Take care not to drill through the axlebox and test fit regularly to avoid removing more material than is necessary (Photo 3).

Glue the side frame castings to the etched frame with either superglue, epoxy or acrylic contact adhesive.

Fix bogies to the underframe using M2 screws ensuring they are not so tight as to prevent the bogies from rocking side to side



**Photo 1.** 2TM bogie etch showing the correct orientation of the bearings.



**Photo 2.** The sides of the bogie frame have been folded to 90° and have been secured with solder. The bolster overlay has also been folded and soldered



**Photo 3.** Flash has been trimmed from the sideframe casting and holes have been drilled to clear the waisted bearings that protrude from the frame.



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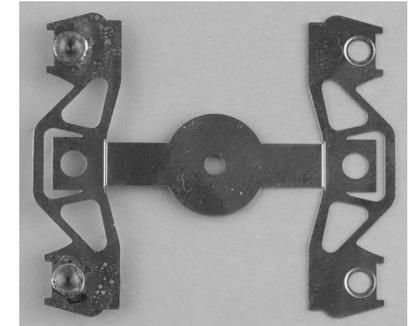
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