# STEPHEN JOHNSON

### STEPHEN JOHNSON MODELS

PO Box 31 RED ROCK 2456

# THOW ARCHBAR 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.

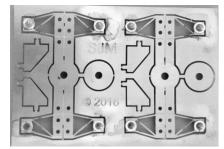
Over-fold the top round spacer so it is on the opposite side of the etch to the half etched lines. Align the holes then solder it in place.

Fold the sides of bogie frames towards the half etch line until they are at about 45° from vertical. Insert the tabs on the triangular supports into the slots then fold the sides to 90°. Secure supports by twisting the protruding tabs (Photo 2).

Check the assembly is straight and square, then solder all the joins and trim/file off excess tab material. Flexing each side outwards an equal amount, insert a 10.5mm 8 spoked 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.



**Photo 1.** Thow archbar bogie etch showing correct orientation of the waisted bearings. Tabs on the angle brackets fit into the small slots on the bolster and side of the frame and can be twisted with pliers to secure the bracket prior to soldering.



**Photo 2.** The spacer is folded over and soldered to the top of the bolster and twist tabs (arrowed) on the gussets are used to secure the bolster at 90° to the sideframes.



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



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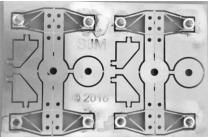
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