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NSWGR 'CW' FOUR WHEEL ELEPHANT VAN

Assembly instructions

Elephant vans were built to carry large circus animals including elephants and camels. They were converted from early cattle wagons by extending the height of the sides, giving them a higher roof line than standard cattle wagons. This made them easy to identify in stock trains. Three CWs were known to have been converted for elephants - all of these wagons were different.

This kit is based on CW 8798. It was converted from an 1882 CW which was rebuilt with a 1903 type body prior to being modified to carry elephants. In addition to being taller, the large openings along the top of the sides were covered with timber panelling to prevent elephants extending their trunks outside the vehicle. This panelling was removed when the vans were returned to regular service. The kit provides for modelling either the elephant or post-elephant versions.

General:

1. *Superglue* should be used for gluing polyurethane parts together and gluing wire into holes drilled in polyurethane. Green Zap a Gap is recommended.
2. Remove any flash from the castings. Sanding the backs of the castings on abrasive paper secured to a flat surface is a good way to reduce the thickness of the flash. A sharp knife with a narrow pointed blade is recommended for removing the flash in the gaps between the boards.

Sides:

1. Using the jig provided and a razor saw (or preferably a shorter serrated scalpel blade), cut a 1mm deep slit in the middle two uprights. Using the dimple as a guide, drill a 0.4 mm hole through the end upright. Drill a shallow 0.4mm hole in the centre of the bracket on the upright adjacent to the door (Photo 1).

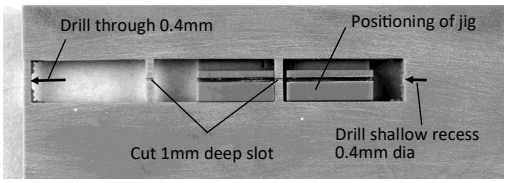


Photo 1. Preparation of the side to fit the wire brace

2. Insert a length of 0.375 mm wire through the hole and slots and glue it in place. Trim the end of the wire so that it protrudes about 0.3mm past the end of the side (Photo 2).
3. Fit a timber panelling insert behind the large opening in each side and glue in place. The wider insert is for a fully enclosed wagon (for elephants) while the narrower one is for open sides (for cattle). Fit the interior cross braces if modelling the version with open sides (Photo 2).

Ends:

1. Drill 0.5mm holes in the buffer stocks. Insert a turned brass buffer head into each hole and glue it in place. Drill a 0.7mm hole for the brake pipe.
2. Note that the kit is designed to take a hook type coupler - as per the prototype. Clean out the rectangular coupler hole and insert a hook type coupler (either 3-link or screw). If you want to fit Kadees you will need to cut a rectangular section out of each buffer beam and also remove the two centre beams at each end of the floor (Photo 3).

Body assembly:

1. Making sure the parts join at 90°, glue an end and side together. Repeat for the other side and end. Glue these two sub-assemblies together to form a rectangle making sure the body assembly is square.
2. Check that the roof and the floor castings fit neatly onto and into the body assembly.

Underframe:

1. Drill a pair of 0.4mm holes in the hand brake wheel bracket attached to each solebar then enlarge each of these holes to 0.5 mm. Glue the solebars and the brake cylinder to the floor casting then drill six 0.5mm holes in the floor casting using the dimples as guides (Photo 3).
2. Fit the floor assembly into the body and when satisfied it is sitting correctly, glue it in place.

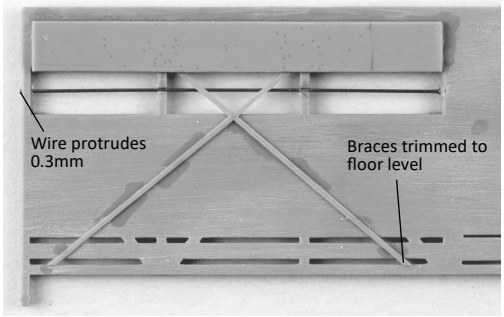


Photo 2. Fitting panelling and cross braces

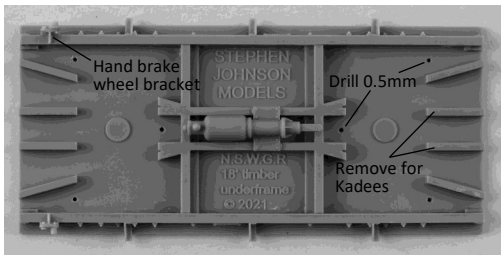


Photo 3. Solebar and brake cylinder arrangement

3. Fold up each W-iron assembly, fit the waisted bearings and solder them together (Photos 4).
4. Glue the W-iron assemblies to the floor casting centring them on the circular locating lugs. An alternative is to drill and tap a hole in the centre of each lug and use the etched washers screw the W-iron assemblies to the floor. This option allows the W-irons to be adjusted.
5. Fit a 10.5 mm spoked wheelset with 23.8mm axles (preferably RP25-88 profile) into each W-iron. Check that the wagon rolls straight and it doesn't rock.
6. Glue the spring/axlebox castings to the W-irons so that the tops of the springs touch the bottom of the solebars.

Detailing:

1. Fold up two brake hangers (Photo 5).
2. Referring to Photos 6 & 7, fit the brake shoes to lengths of 0.45mm wire. Glue these into the 0.5mm holes in the floor. Fit the triangular yoke to the brake shoes and the brake hangers. Note that once this is done, the wheels can't be removed. Fit two lengths of 0.376 wire between the tops and middles of the brake hangers.
3. Referring to Photos 6 & 7, fold and solder the brake wheel spiders then solder these and the release levers to two lengths of 0.376 mm wire. Insert the wire through the brackets on the solebars. Solder a spider and release lever to the opposite end of the wire.
4. Glue the long horizontal braces to the sides and the short ones to the ends (Photo 8).
5. Glue the brake pipe into the hole in the end.

Painting and decaling:

1. The wagon needs to be washed in soapy water, rinsed, dried then primed followed by painting it wagon grey.
2. Spray the area to be decaled with a clear gloss coat. Once dried, apply the decals.
3. Weather to taste.

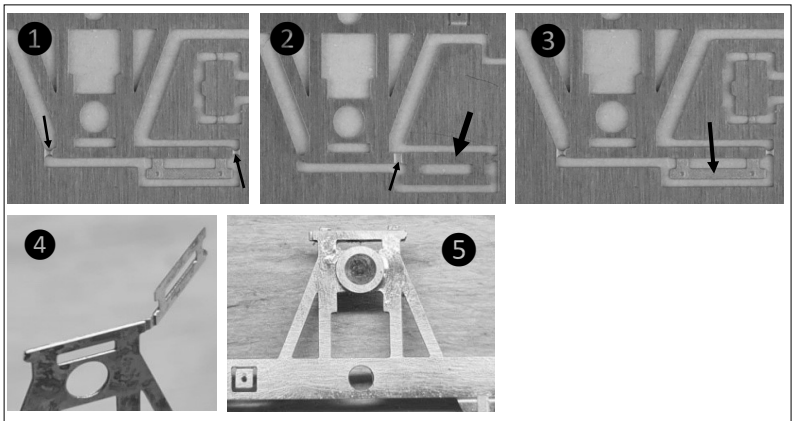


Photo 4. ❶ Remove the W-irons from the fret. Take care when cutting the tabs holding the W-iron tie bar overlays (arrowed). ❷ & ❹ Overfold the W-iron tie-bar overlay (large arrow) 180° *away* from the half etched bend line (small arrow) so that it sits on top of the tie bar across the bottom of the W iron. ❸ The tab with the two rivets (arrowed) 180° is overfolded so it sits directly over the tie-bar overlay. Solder the riveted overlays over the bearings . ❺ solder the bearing into the holes in the W-iron.

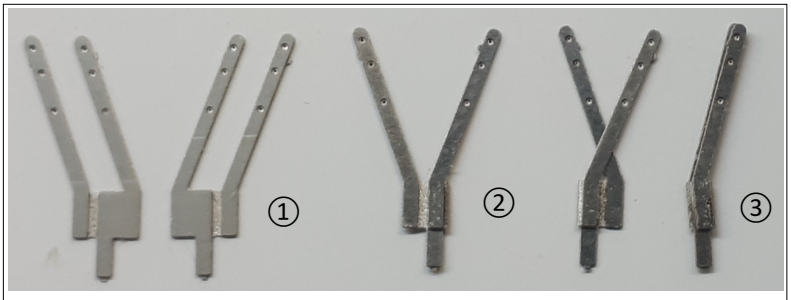
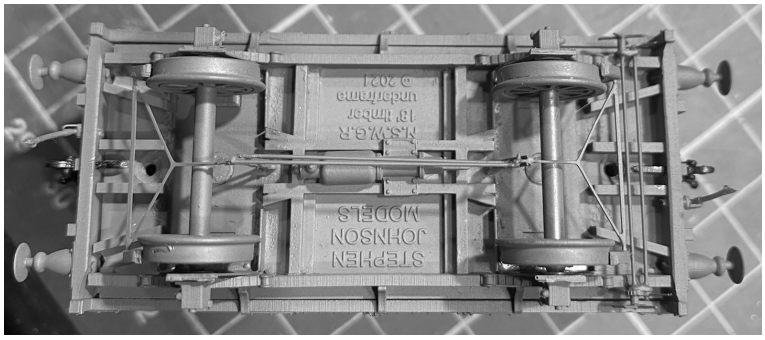


Photo 5. Folding up the brake hangers. ① Showing etched fold lines on the top and underside of the part. ② Folding an arm away from the etched line (overfolding) will result in either of these shapes depending whether top or bottom line is folded first. ③ Overfolding the second etch line will result in two parallel arms with a 0.2mm gap between them.



Photos 6 & 7. Underbody detail.

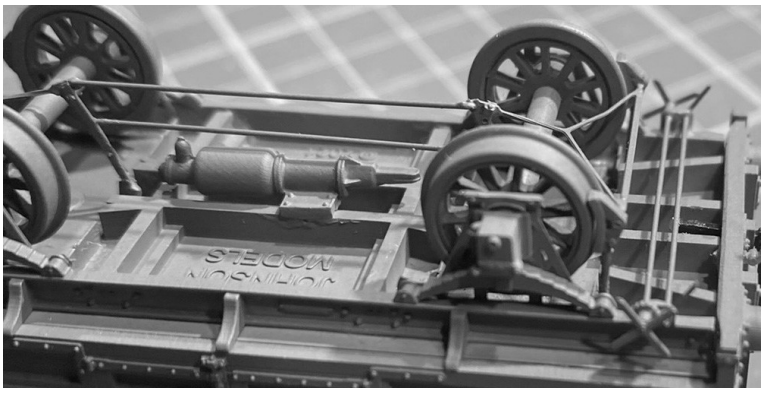


Photo 8. Side and end bracing.