

NSWGR CONVERTED 'CW' WORKMANS VAN

Assembly instructions

The railways often converted surplus rolling stock into vehicles for non-revenue departmental use. An example is the 1903 four-wheel cattle wagon that was converted into L720, a workmans' van for use by the Signal and Telegraph Branch.

This kit is based on a Howard Armstrong photo of that vehicle. While it can be made fully operational, perhaps it is most suited to being parked in a siding - where it spent most of its life. The kit is supplied with screw couplers to enhance its appearance as a static model. If it is intended to run the van with other screw coupled vehicles, it is suggested that the buffers be sprung.

General:

1. *Superglue* is recommended for gluing urethane parts together and for securing wire into holes drilled in polyurethane.
2. *Epoxy glue* is recommended for gluing polyurethane to etched nickel silver parts and vice versa.
3. Carefully remove any flash from the castings. A sharp knife with a narrow pointed blade is recommended for removing flash from the windows.

Sides:

1. Drill a 0.5mm hole in the back of each corner post to accept the 0.25mm diameter wire tie-bar that runs between the bottom of the sides below the headstock (Arrowed in Photo 1).

Body assembly:

1. Making sure the parts join at 90°, glue an end and side together. Repeat for the other side and end then 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.
3. Glue an angle bracket to the inside of each end to mount the floor

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 to the floor.
2. Glue the brake cylinder in place and drill six 0.5mm holes in the floor casting using the dimples as guides (Photo 2).
3. Fold up each W-iron assembly, fit the waisted bearings and solder them together (Photo 3).
4. Glue the W-iron assemblies to the floor casting centring them on the circular locating lugs. Ensure the axles are parallel to each other.



Photo 1.

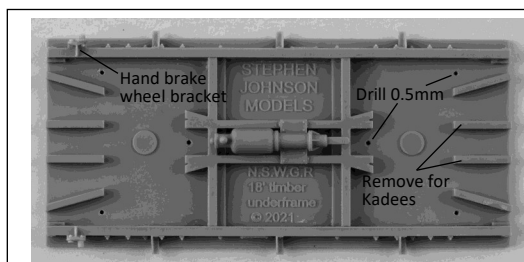


Photo 2. Solebar and brake cylinder arrangement

5. Fit a 10.5 mm spoked wheelset with 23.8mm axles (RP25-88 profile is recommended) into each pair of W-irons. 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.
7. Fold up the two brake hangers (Photo 4).
8. Referring to Photos 5 & 6, glue the brake shoes to lengths of 0.45mm wire. Glue these and the brake hangers into the 0.5mm holes in the floor. Fit the triangular yoke to the brake shoes and the brake hangers noting that the wheels can't be removed once this is done. Solder two lengths of 0.376 wire between the top and middle of the brake hangers.

Ends/buffer beams:

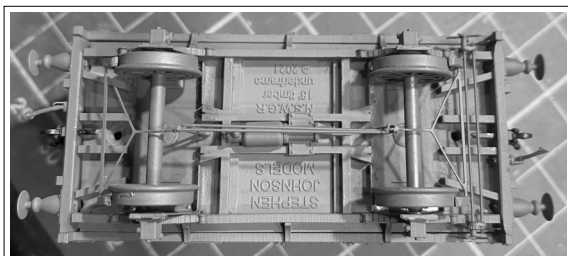
1. Drill 0.5mm holes in the buffer stocks. Insert a turned brass buffer head into each hole and glue it in place. Drill a 0.7mm hole for the brake pipe.
2. Note that as per the prototype, the kit is designed to take a screw coupler. Clean out the rectangular coupler hole to accept the coupler hook. If 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 2).

Detailing:

1. Referring to Photos 5 & 6, 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.
2. Bend up the brackets for the step as shown in Photo 7. Drill a hole through the bracket and into the solebar so the bracket can be secured with a wire pin. Fit the brackets to the solebar below the access door then glue the cast step to the brackets.
3. Glue a toolbox below each solebar.
4. Fit gussets over the join between the angle bracing and corner post on each end (see Photo 1).
5. Drill a hole on the centreline of the roof and fit the chimney.
6. Glue the brake pipe into the hole in the headstock and fit wire tie-bars below the headstock at each end.
7. Assemble the couplers.

Painting and decaling:

1. The wagon needs to be washed in soapy water, rinsed, dried then primed followed by painting it 'Way and Works cream'.
2. Secure the floor and roof to the body (after they are painted black).
3. Fit the couplers and along with the buffers and headstocks, paint them black
4. Spray the area to be decaled with a clear gloss coat. Once dry, apply the decals.
5. Highlight the raised areas in black (Photo 1), then seal the model with Dullcote or similar.
6. Weather to taste.



Photos 5 & 6. Arrangement of underbody detail.

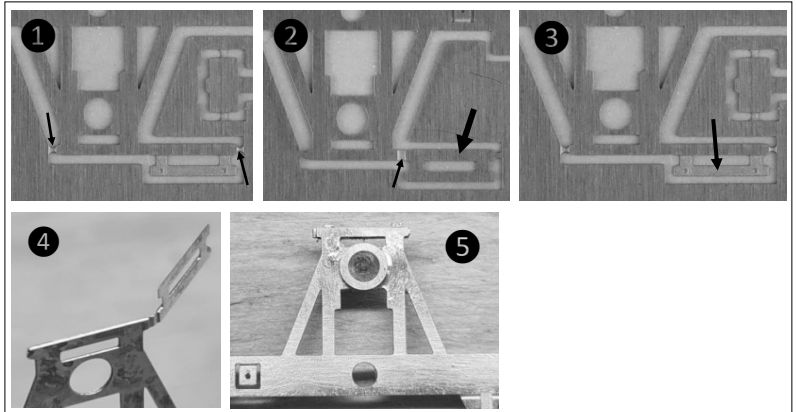
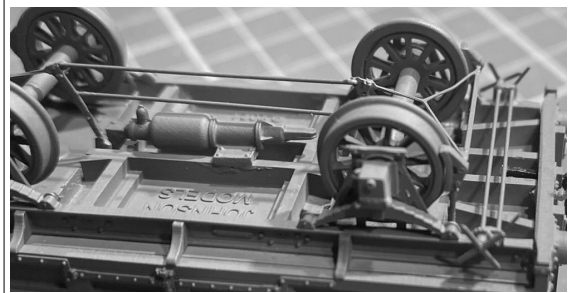


Photo 3. ① Remove the W-irons from the fret. Take care when cutting the tabs holding the W-iron tie bar overlays (arrowed). ② & ④ Overfold the W-iron tie-bar overlay (large arrow) 180° towards the half etched bend line (small arrow) so that it sits on top of the tie-bar across the bottom of the W iron. ③ The tab with the two rivets (arrowed) is overfolded 180° so it sits directly over the tie-bar overlay. ⑤ solder the bearing into the holes in the W-iron.

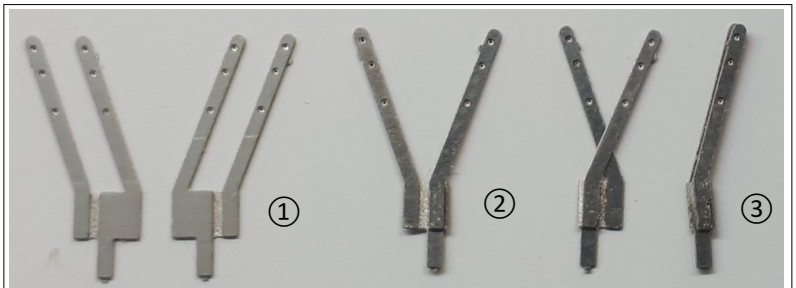


Photo 4. Folding up the brake hangers. ① Showing etched fold lines on both the top and underside of the part. ② Folding an arm away from the etched line (overfolding) will result in either of these shapes depending whether top or bottom line is folded first. ③ Overfolding the second etch line will result in two parallel arms with a 0.2mm gap between them.

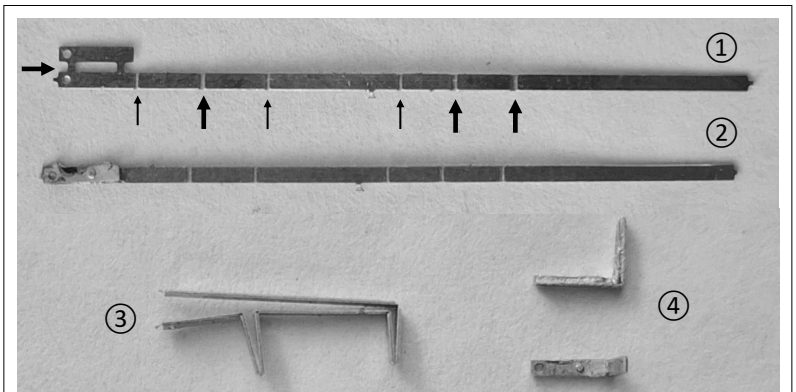


Photo 7. Folding up the step brackets. ① A bracket has been removed from the fret but has not yet been bent to shape. Small arrows indicate bends that have to be made at 90° towards the etch line while large arrows indicate bends that have to be made at 90° or 180° away from the etch line. ② The 'strap detail' has been overfolded and soldered onto the body of the bracket. Note the hole for a wire pin to secure the bracket to the solebar. ③ The bracket has been folded to shape. ④ Top and side views of the completed bracket after drilling, soldering and snipping off the bottom step.