



NORTHERN FINE SCALE

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TWIN BOLSTER WAGON KIT

About SECR/SR 10-ton bolster wagons:

Built in the early 1900s, Bolster Wagons were initially paired numerically but with subsequent repairs and rebuilds the numbering scheme became random. Used for the carriage of long loads such as logs, sawn timber, rail, steel, and fabricated items they ran into the 1940s with the final set lasting until 1951.



For longer loads single bolster wagon (also available from Northern Fine Scale) would be used in conjunction with the twin bolster wagon.

"Illustrated History of Southern Wagons". Vol 3 SECR Bolster & Timber Wagons Chapter 7 page 126. Published by OPC.

See *"L.N.W.R. Wagons" Vol 1, page 192, appendix 3, for information on how to load timber.*

This kit contains the following items for twin bolster wagons.

2 Floors	4 Side Planks	4 End Planks
4 Sole Bars	2 Buffer Beams	2 Drag Beams
4 Half Drag Pockets	2 Bolster Beams	2 Load Supports
4 Vertical State Irons	8 Axle Boxes	8 Bearings
2 Coupling Hooks	2 Split Pins	2 Coupling Springs
2 Coupling Chains	4 Buffer Heads	4 Buffer Stocks
4 Buffer Stock Rims	4 Buffer Head Nuts (M2)	4 Buffer Springs
2 Stiff Wire	2 Sets of Brake Gear	4 Shackles
1 Draw Bar	2 1/16" Rivets	4 Axles with Wheels
1 4-40 screw	1 Spacer	

For assembly you will need:

- M.E.K. solvent solution, Plastic Weld, Mek-Pak, or a liquid equivalent. In North America Ambroid Pro Weld is an appropriate choice (tube cement is not suitable).
- Fine natural bristle paintbrush number 2 or 3 to apply the cement. (*Note that the cement will attack synthetic fibres.*)
- A block of wood approx. ½" thick x 2" x 4" with one true square corner beveled to give room for the cement brush.
- A small file.
- Modeling knife.
- Tweezers.
- Needle-nose pliers.

To Begin:

Inspect all items. Using the file, smooth away any pips left from the mouldings. Do not file the large pips on the floor underside or on the buffer beam and drag beam.

Painting:

Painting of the kit is best done after the body has set up and before the axle guards are glued to the sole bars, and the hooks, buffers and brake gear are installed.

Note: do not paint surfaces that will be glued together. Use the livery colours suited to the Railway Company being modeled.

CONSTRUCTION METHOD

The Body:

Take one side and one end plank, place against a squared block of wood. The end plank fits into the recess on the side plank. Glue the corner forming an 'L' section. (See photo 1.)

Repeat for other side and end planks making sure that the rebate on the side plank is the same way up as the first pair.

When the glue is set, fit the wagon bottom (planking side down) into rebate of the side plank with the end butting up to the end plank then glue. Repeat for the other side.

(See photo 2.)

Take a sole bar with hole through it (for the brake hanger) and the drag beam with no holes for the buffers. Set it square against block of wood and glue with sole bar lined up against the small pins on the drag beam. Repeat other end for the buffer beam.

Note: twin bolster wagons have break gear on one side only.

Note: the 'C' crown plate moulded above each axle box must face down.

(See photo 3.)

Place the sole bar, the buffer beam, and the drag beam on the floor of the wagon against the pegs and centralize the assembly to the floor, check for square and cement in place, making sure the sole bar is the correct way up.

(See photo 4.)

Assemble the four bearings into the axle boxes and glue two to the assembly and the other two to the second sole bar ensuring it is the correct way up with the 'C' plate pointing down. Insert the wheels/axles into the bearings. Check for fit and free running. Leave a small gap between the axle bearing and wheels and then cement the sole bar in place. Cement the upper and lower drag bar pocket blocks together using the pins and holes as a guide. When the glue is set, cement the assembly to the drag beam.

(See photo 5.)

Buffers:

Cement the rims to the outer end of each buffer stock.

Note: the rims have a slight recess on one side to allow for location to the buffer stock. By hand, run a 1/8" drill through the spring hole. Assemble the buffer with a spring and a 2M nut, then cement each assembly into place.

Note: long webs are on the sides; the short webs are on top.

(See photo 6.)

Draw hooks:

Open up the chain link and fit to the draw hooks. Insert the hook through the slot in the buffer beam. The large spring is fitted over the shank and retained with a split pin (one side of which is bent open).

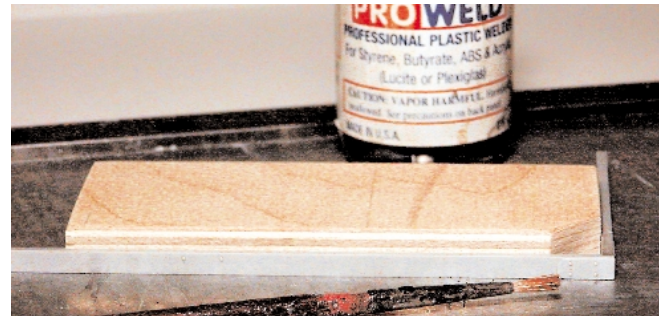


Photo 1.



Photo 2.

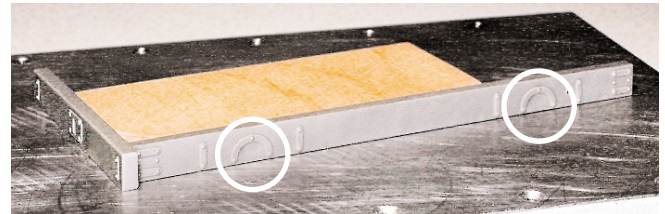


Photo 3.

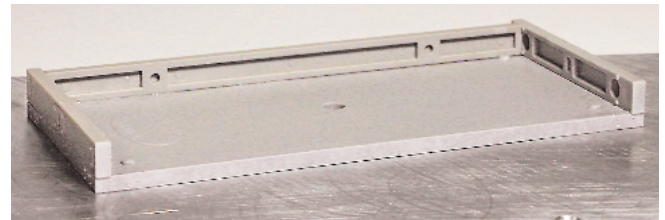


Photo 4.

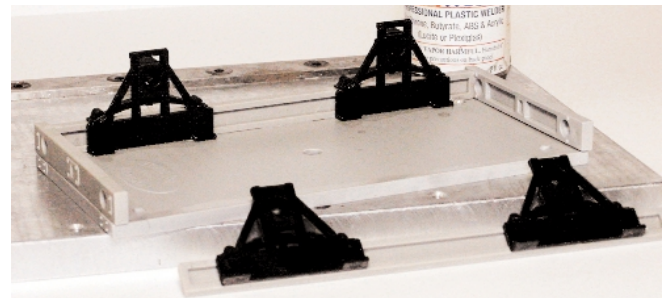


Photo 5.

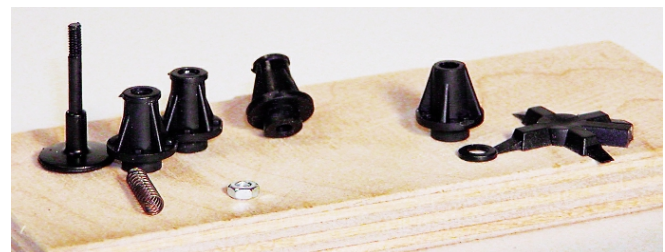


Photo 6.

Brake Gear:

Remove the main brake assemblies from the moulding scrap (the sprue). Glue the two safety hanger halves to their respective posts. Cement one set of brake gear centrally between the wheels and against the sole bar on each wagon.

Note: one set of brake gear is used on each of the double wagons and is fitted on the near side of right-hand wagon when the tandem unit is viewed from the side.

Insert a piece of stiff wire through the holes then slide the 'V' hangers, bolt heads out, one each side of the sole bar. The brake lever rack on each side is fitted to the sole bar on the right hand side of the bar. The peg on the brake lever rack locates in the sole bar. Cement the brake lever in position. The hole in the handle fits on the stiff wire and rests in the brake lever rack with the handle resting on the top rack. Trim off the excess material on the stiff wire

(See photos 7 and 8.)

Center Support and Bolster Beam:

Cement the load beam to the floor using the spigot and the hole in the floor to ensure that the beam is square to the sides of the floor. The swiveling bolster can now be attached to the centre load beam using the 4-40 screw and spacer. Do not over-tighten — the bolster must be free to rotate slightly in use. The vertical stake irons can be placed in the holes on top of the bolster. Spring open the shackle so that the pegs engage in the holes on the sides of the bolster.

The two wagons are close-coupled using the brass drag bar and 1/16" rivets. Pass the rivets through the top hole in the drag bar pocket block, through the brass strip, and then into the bottom hole. Pinch the end of the rivet to prevent it from falling out if the wagon is turned over.

(See photo 9.)

You have now completed your Northern Fine Scale Twin Bolster Wagon.

(See photo 10.)

Please note that we recommend using our wagons with a load or added weight.

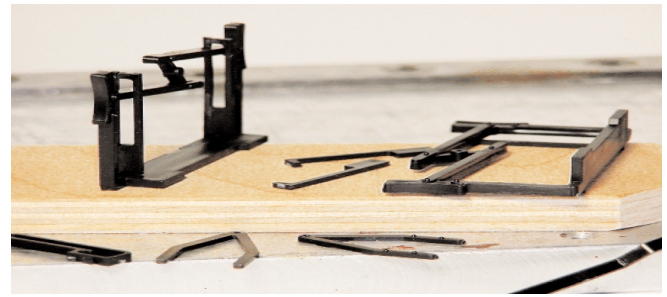


Photo 7.



Photo 8.

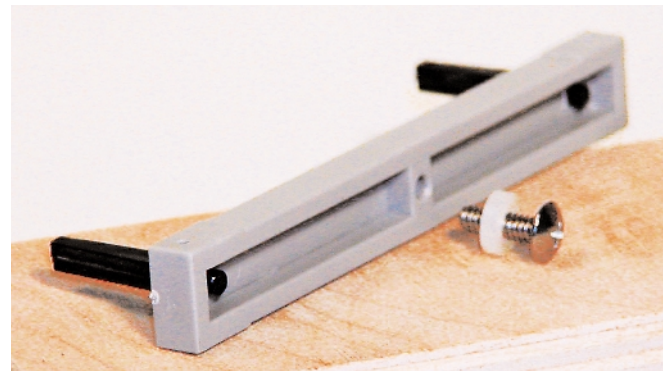


Photo 9.



Photo 10.

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