

## NORTHERN FINE SCALE CANADA High Quality Kits For Gauge 1

### Instructions For Rectangular Tank Wagon

**This kit contains the following items**

<u>QTY</u>	<u>ITEM</u>	<u>QTY</u>	<u>ITEM</u>	<u>QTY</u>	<u>ITEM</u>
1	Floor	2	Tank Ends	1	Tank Top
2	Tank Sides	1	Filler Cap	1	Cap Latch
2	Bracing Brackets	2	Bracing Bars	2	Buffer Beams
2	Sole Bars	4	Axle Boxes	4	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	Sets Brake Gear	2	Axles with Wheels	1	Stiff Wire

#### **Kit Instructions**

You will need a flat surface to work on and some simple tools. A flat needle file, tweezers, sharp craft knife (i.e. Exacto), small pliers and some method of holding the wagon sides square whilst gluing them together. We recommend a small block of wood with a true, square corner, which is cut at an angle to allow access for the glue brush to reach the joint. (see *photo 1*.) A liquid styrene solvent, like Slaters MEK, Ambroid Pro Weld, or Plastruct Plastic Weld is recommended, and a small pointed number 2 artistscamel hair brush, (not a synthetic bristle brush) to apply the solvent with. The liquid solvent works by capillary action and welds the joint together. **Do not** use tube styrene cement. You will also need a tube of cyanoacrylate glue. Always cut the parts as needed from the sprue, never break them off by bending back and forth. There is a risk of damaging or deforming the part. Use a flat needle file to remove any pips or bumps after cutting. Note: do not paint surfaces that are to be glued.

#### **The Tank: (See Photo 1)**

Take a side and end. Turn upside down (rebate down plain side up) and line up both parts against the wooden block so that the corners fit snugly in the rebate. Run a bead of solvent down the inside of the joint which will set up within minutes. Set assembly aside and repeat the procedure with the other side and end. When both "L" s have been set up repeat the procedure to complete the sides of your tank making sure all is square.

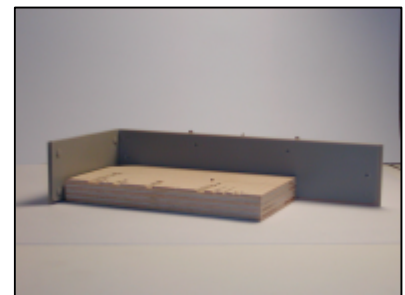
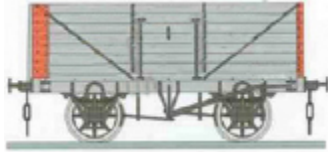


Photo 1



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### Under Frame:

The sole bars have two 'C' shaped crown plates above the axle box positions. The end of the 'C' plates should face down. Take one sole bar and a buffer beam aligning the sole bar against the two small pips protruding from the back of the buffer beam. Square up with wooden block and glue the same as was done with the tank. (See *Photo 2*) Before gluing the two 'L's' together fix axle boxes (also known as W irons) into the holes in the sole bar back. And glue in place with the solvent. When they set, fit the nylon bearings into the holes in the back of the axle boxes and glue with the cyanoacrylate glue, not the liquid solvent. Glue the floor plate to the bottom of the tank (plain side, not rebate) ensuring there is no overlap of the floor to the box. Align and glue one corner of the 'L' of the sole bar and buffer beam to the bottom. (tacking one corner only, secures position for aligning and checking wheel positions See *Photo 3*) Align the other 'L' with the wheels and axles in place. Check for side play on the wheels between the axle boxes and the wheels run freely, glue sole bars in position. Also glue beam to tank end. (See *Photo 4*)

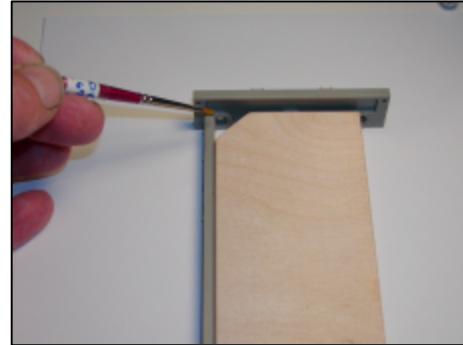


Photo 2

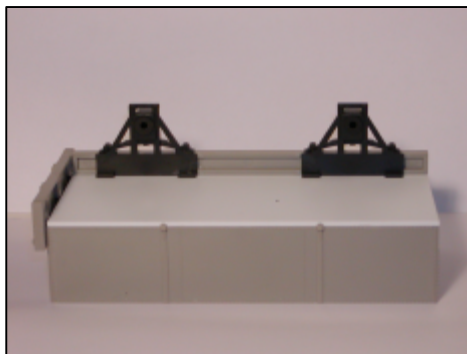


Photo 3

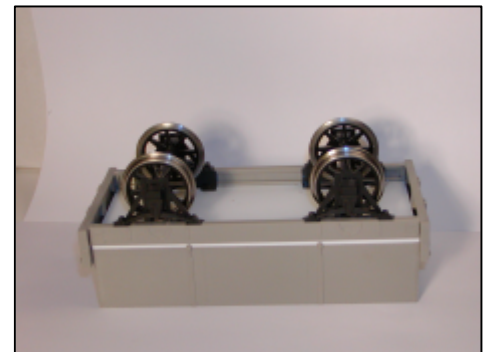
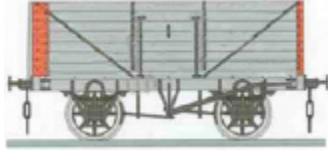


Photo 4

### Buffers:

Cement the rims to the outer end of each buffer stock. **Note:** the rims have a slight recess on one side for location to the buffer stock. Take the buffer ram and slide a buffer spring over the end of it. Insert the ram and the spring through the buffer housing and secure by fitting the small nut onto the threaded end of the ram. The buffer should now move freely in and out of the housing. The hole may need to be cleared of residue (small round file). Insert the buffers into the holes in the buffer beams ensuring that the short flange on the housing body is up (i.e. at 12 o'clock).



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#### Draw hooks:

Open out the end link on the three link chain and insert it through hole in draw hook. Insert hook through the slot in buffer beam. The large spring being fitted over the shank and retained with a split pin, which is bent open.

#### Brake gear:

Take the main gear components and two half's of the safety hanger loops. (See *photo 5*) Glue them in place to form the safety hanger loops and leave to set. Fit the brake gear assembly to the bottom of the wagon with the long slot against the back of the sole bar so that the brake shoes are between the wheels but not touching them. Ensure the wheels run freely. When the glue has set take the stiff wire and thread it through the hole in the middle of the brake rods. Slide the 'V' hangers on to the ends of the wire, two on either side of the sole bar. Ensuring that the bolt head detail is on the outside. Next fit the brake lever rack that supports the end of the lever. The rack fits on the sole bar between the right side 'C' crown plate and the small vertical washer plate. Before fitting the brake lever to the end of the wire at the 'V' hanger install the bracing bar bracket centered between the 'V' hanger on the sole bar. (See *Photo 6*) Cut to length the bracing bar and fit into holes in the buffer beam and the bracket, and glue. Fit brake lever through brake lever rack and fix to wire.

Use cyanoacrylate glue to make this joint.



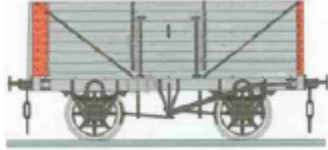
Photo 5



Photo 6

#### Tank Top and Filler Cap:

Take the filler cap and ensure a smooth surface on the bottom by rubbing it on a sheet of fine sandpaper. Place cap on top of tank, from the underside align the two holes concentric to each other and glue in position with cyanoacrylate. Cut runners from tank top bracket and glue onto tank filler cap with cyanoacrylate. Fit Tank top into tank and glue with solvent.



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### **Painting and Transfers.**

Please refer to the instructions with your transfers.

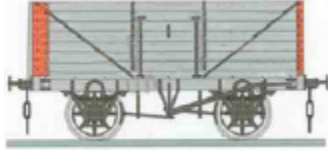
You have now completed your Finescale wagon. Happy running.

### **General Notes**

Rectangular tank wagons specifications were introduced by the RCH in 1907. Underframes could be either steel, iron or wood and the fixing of the tank to this frame varied according to the material used. Some tanks discharged from the bottom whilst others were discharged by siphoning through the top. Some loads needed to be heated before discharge and steam was introduced by using a lance through the top filler. These tanks were mainly used for carrying heavy oils and tar, and many continued in use until the late 1970's.



**Finished Wagon**



## **NORTHERN FINE SCALE CANADA**

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