

MALKY'S N-SCALE S.A.R. MODELS

Poison Spray Train



Model and photo by Stuart Rees

The Prototype: The weed spray poison train was made up of a specially converted W class wooden open wagon and a 9000 gallon TW water tank wagon.

For More Information:

The information used in the development of the kit was taken from the article *Build a Poison Spray Van* by Kevin Kavanagh in Australian Model Railway Magazine Sep/Oct 1981 pp38 - 47. You should refer to that article for photographs and the drawing.

The Kit: This is not a complete kit, but provides the major components for a skilled modeller to complete a model of this unusual train. In addition to the plastic and brass parts, you will need wire or styrene round strip to build the truss rods on the W wagon, corrugated iron material to clad the shed, flat brass strip to fix the tank to the underframe, various pieces of brass wire and flexible plastic tube for the pipework and brake wheels or levers. Further details could also be added such as grab irons, steps etc.

The kit has two elements: 3D printed parts which can be purchased from Shapeways and a pack of etched brass parts and decals available from MNSSARM. The Shapeways portion consists of five parts printed in Shapeways Frosted Extreme Detail plastic: a body for the spray wagon, the cabin for one end and the shed for the other, plus a small toolbox which is attached to the shed in the print; also the tank body and underframe for the spray tank. In addition you will need Microtrains 1015 couplers, MicroTrains Archbar trucks for the spray wagon and Bettendorf for the tank car. The brass parts for the tank car include two side walkways with ladders, the upper walkway, contents gauge and the end ladder.

1. Clean the plastic parts thoroughly to remove any remaining wax from the printing process. This is essential to ensure good paint and glue adhesion. Cleaning can be by soaking in suitable solvent, such as isopropyl alcohol, assisted with a toothbrush. The brass etch should be soaked for a few minutes in vinegar and then washed with clean water.

Spray Wagon

2. Carefully remove the toolbox from the sprue on the sloping end of the shed, preferably using sprue cutters or similar. File off any remaining sprue material from both parts.

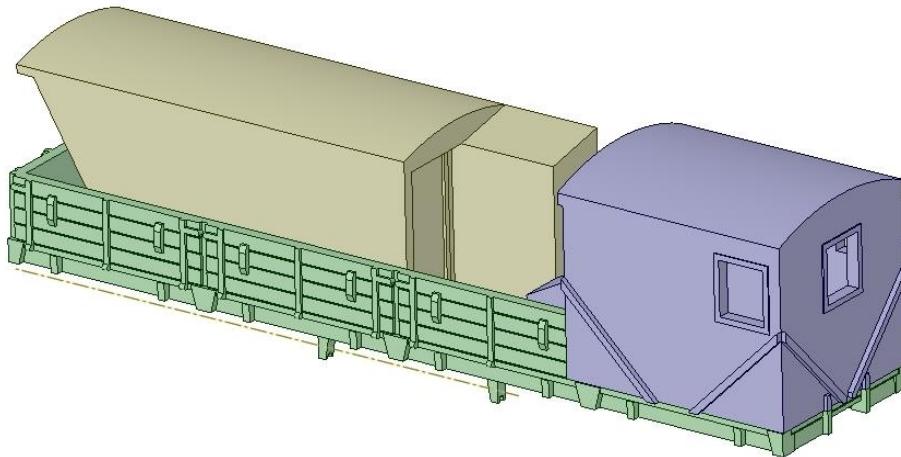
3. Before fitting any other parts to the wagon body, drill for fitting the bogies and couplers. It is necessary to fit four pieces of wire or styrene round strip to make the truss rods. This should fit into the grooves provided in the queenposts on the underside and be terminated at either end at underfloor level – marks are provided to start drill holes if you wish to secure the rods in that way.

It is probably preferable to fit the bogies before attaching the other components, because of the need to press down to fit

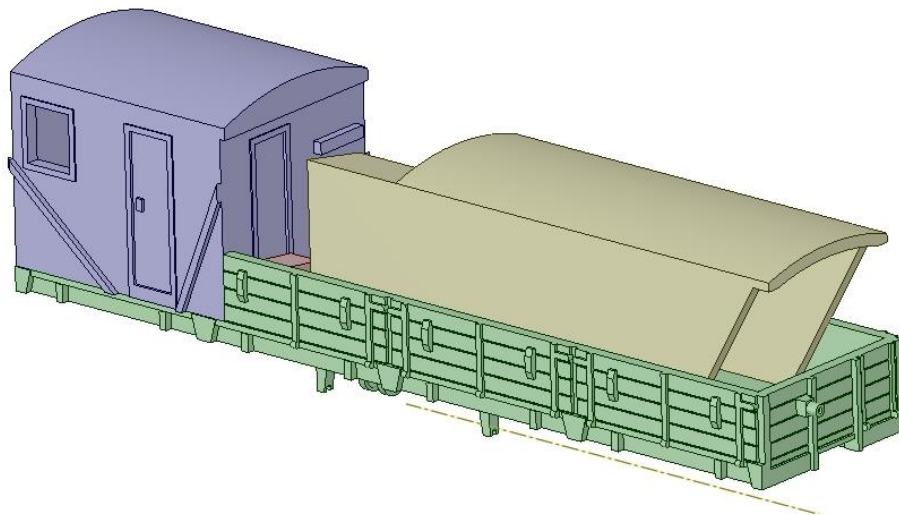
the bogie pins. Consideration must also be given to the painting sequence.

4. The cabin fits at the end of the wagon which has no sides – see figure below. When you have achieved a good fit, it should be glued in place with Cyanoacrylate (CN) superglue.

5. The shed is intended to be covered in material to give the effect of corrugated iron, such as the material available from Spirit Design. The shed fits at the opposite end of the spray wagon to the cabin, fits between the sides and is aligned so that the flat end of the sloping portion is flush with the end of the wagon – see figure below.



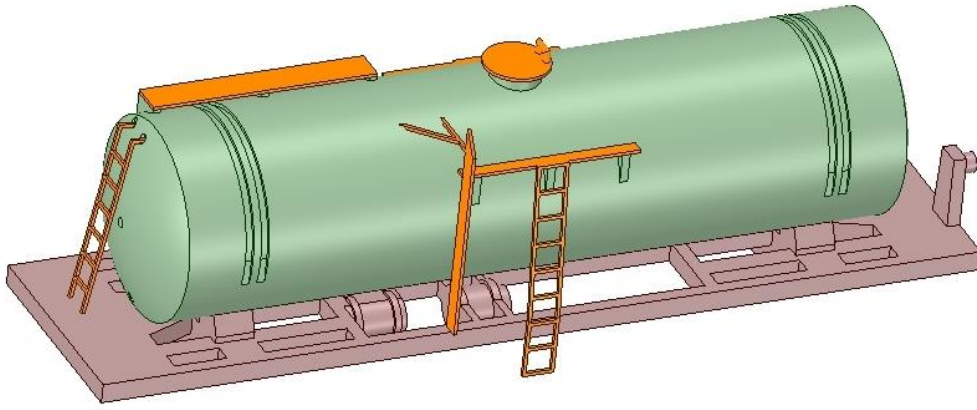
6. The small toolbox is fitted against the side of the wagon between the door of the cabin and the lavatory extension of the shed – see figure below.



Tank Car

7. The underframe fits up into and forms the lower portion of the tank. Ensure that a good, neat fit is achieved. Before final fitment, drill the underframe for bogies and couplers and determine if added weight is needed.

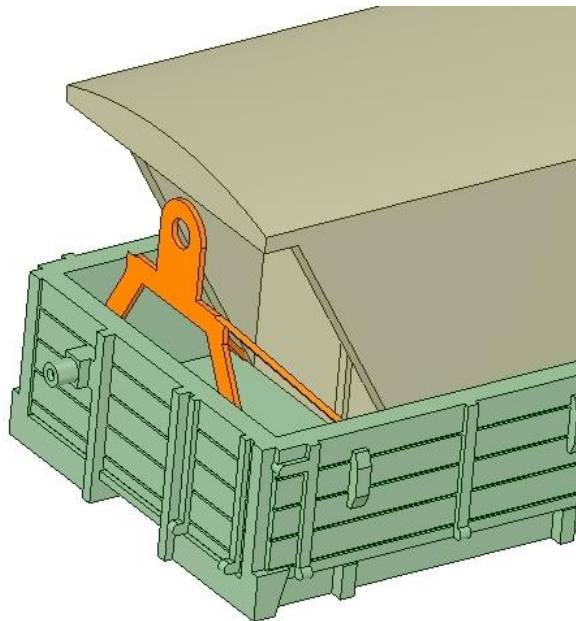
8. The various brass parts are fitted as shown in the figure below and should be fixed with CN superglue. Carefully bend the ladders down from the two walkways so that they fit against the side of the underframe. The top walkway fits at one end of the tank, and the extra ladder is fitted into the same end, after bending the two mounting pins over. The lid for the filling dome is placed on top. The handle can be made of wire and fitted to the holes. The contents gauge is folded and fitted towards the end with the ladder, as shown. Finally, four pieces of brass flat (0.25 x 0.5 mm) strapping are fitted round the grooves in the tank and then secured to the underframe.



9. Paint the parts. Apply a primer, then SAR grey (light or dark depending on your era). The contents gauge should be black on the face towards the ladder end, the support arms grey.

10. Apply decals: the wagon numbers at the lower left hand of each side; the Do Not Uncouple signs on the tank. Seal with Dullcote or similar. See pictures in the AMRM article.

11. Added Details. You can go to whatever lengths you feel appropriate to finish off this complex train. Piping on the tank and the spray van can be modelled using brass or copper wire. The connecting pipes between the tank and the van can be modelled with very flexible wire, such as decoder wire, or else insulation stripped from fine gauge wire. Locations are marked on the tank for these hoses. They connect on the spray wagon on a tripod erected under the open sloping end of the shed. The tripod is provided in the brass etch and should be folded so that the two rear legs reach backwards, see illustration below. Two holes should be drilled in the wagon floor for the rear legs (see specifically the illustrations on p42 of the AMRM article, and the drawing).



Acknowledgements

All information and drawings from the AMRM article. Extra assistance from Stuart Rees, the prime mover behind this project.