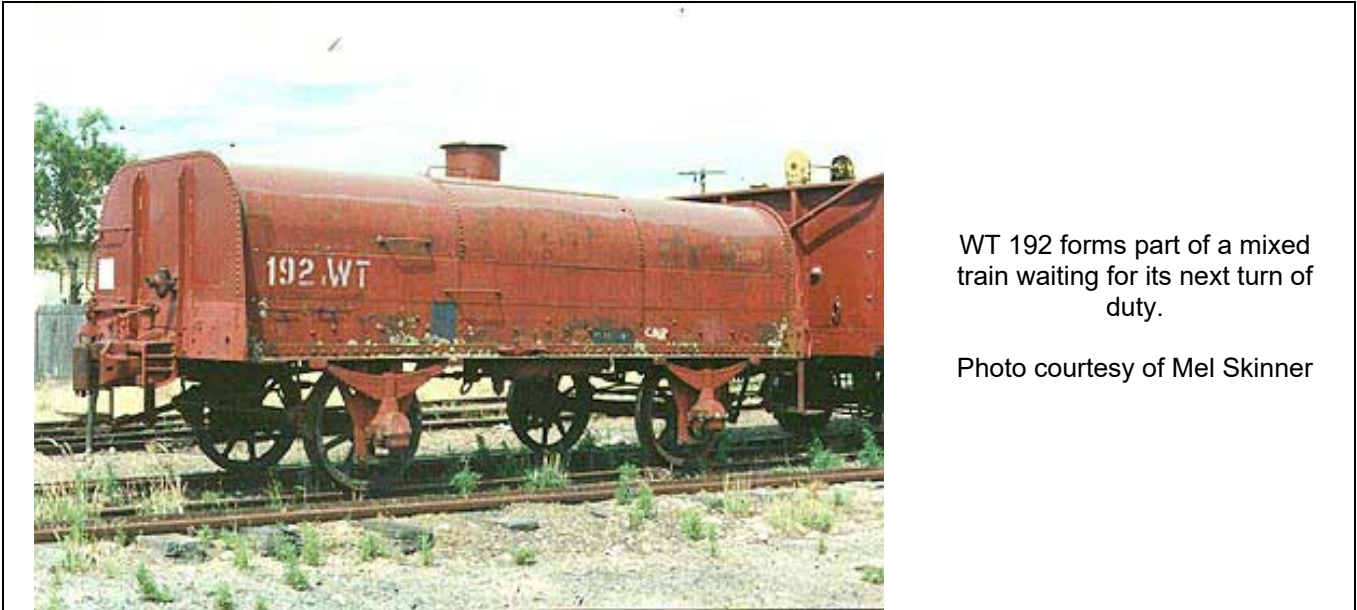


1008 Victorian Railways 'WT' domestic water tank wagon.

Thank you for purchasing one of my many kits and I hope you get many hours of enjoyment from it. Chris Pearce (Spirit Design)



WT 192 forms part of a mixed train waiting for its next turn of duty.

Photo courtesy of Mel Skinner

Basic history notes: The first 2000 Gallon WT was built by the Newport Workshops in 1899 and in 1902 a further 50 units were built numbered 11 – 60. From 1912 through to the end of 1915 a further 105 units were built to the same basic design. Most of the wagons were auto coupled in the 1930s and by the 1950s most had lost the buffers that adorned their ends and were fitted with standard shunter steps. The group was eventually to total 236 units but not all to the above photo's design. Extra tanks in the group were made by attaching cradles to I, IA, IZ units in cases of severe drought. Once the crisis was over the cradles were removed from the wagons and they returned to normal traffic duties, but these are not the subject of this kit.

WT's were used extensively during the Steam days for supplying water to loco depots in dry or hard water areas. They were a familiar sight on Mallee lines to Mildura during drought or used as a backup for fire fighting duties. A water tap was positioned at the correct height to supply extra water to steam locos when travelling to areas that didn't have a good supply of freshwater or water that would clog the boiler tubes being so hard. They also supplied the various work gangs around the state with fresh water at encampments and were some of the last 4-wheel wagons to be removed from the VR roster in the early 1980s and were a familiar sight marshalled being Steam hauled locos on enthusiast specials.

Equipment & Materials: Exacto knife (blade no 16 or similar), 800-grit aluminium oxide sandpaper, small flat needle file. Fast-drying 'Selleys Kwik Grip' water-based (all recommended: usual disclaimers) and a small soldering iron to solder the shunter steps.

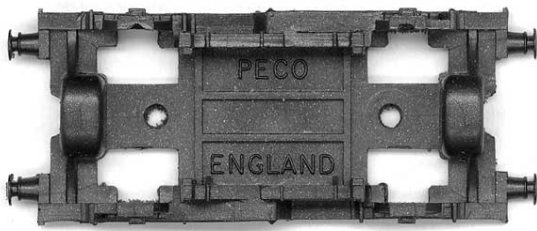
General Kit Instructions: There are a few steps that require close attention and they are highlighted in ***bold and italics!*** Parts referred to in the text are marked (P1), (P2) etc. Refer to the photos, which illustrate well the correct positioning of all parts. Please read through the instructions first to become familiar with the assembly procedures. Always test fit items before applying any glue.

Underframe construction for Microtrains coupler units

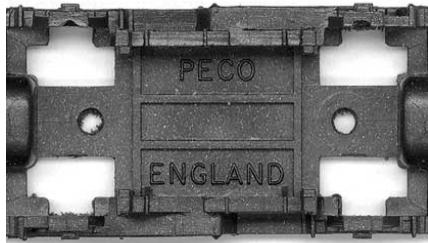
There are a couple of ways of making the underframe from a Peco NR121. The ***simplest*** is by shortening it, removing the brake rigging from one side only but still leaving the brake shoes intact as in the above-completed wagon picture. Also, remove the coupler pockets for the Radios and fit Micro trains knuckle couplers in their place. The photos below should help.

The other is by cutting the underframe up more drastically, rotating the bits 180 degrees to make the brake shoes appear in their normal VR positions. This also calls for removing the Rapido coupler pockets and thus separates the wagon sides into 4 parts. ***Pay special attention to gluing*** the four separate bits to the floor making sure the spacing and correct clearances are given to the wheels. The choice is yours which method of underframe type you adopt. Also if you look closely the handbrake detail is different on the model to the prototype. I have left this up to the modeller to decide if he or she would like to fabricate a drop-down lever using 5thou styrene.

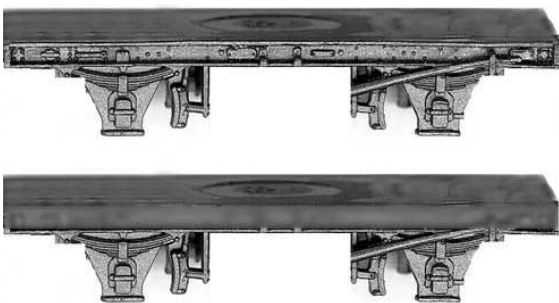
Construction steps below:



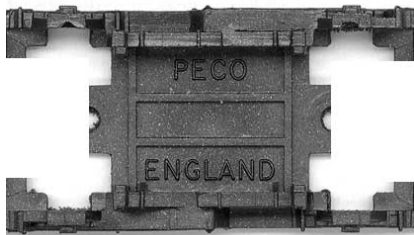
Standard Peco NR 121 underframe before alterations.



Sand the wagon floor top to remove any bumps and lumps of the injection moulding and then trim the unit level with the coupler pocket faces.



Remove the top edge of the channel near the deck and scrape or sand off all detail along the side above the axle boxes, as this is where you will glue a brass-etched strip. Make sure you don't remove the bottom part of the channel edge. Also, remove the brake rigging as per the photo on the left side only. If you plan to fabricate your brake throw down bar, remove the other side's brake rigging.



Remove the coupler pockets.



Note wash the casting in warm soap water before gluing to remove the moulding release agent. Glue the tank centrally using Selleys Kwik Grip to the underframe and trim the underframe to the length of the tank.



Fold up the shunter steps 90 degrees and solder at the corners or apply superglue sparingly. Glue the brass tank ends which include the shunter step to the casting ends and underframe. **Make sure that the etch sits above the physical tank by about 1/2 mm and has an even overhang at each side.** See photos of the prototype for clarity.



Glue the side brace etch to both sides as per this photo and after drilling a small hole into the casting for the tap at both ends glue the taps into the holes. Also, glue the filler hatch to the top of the tank.



Fit handrails after drilling the pilot hole a bit deeper with a very fine drill bit. The fine brass wire should be bent to match the holes in the casting. Six are required all up. Glue the 30thou styrene pieces to the underside where the couplers will go. The model is now ready for painting, decaling and weathering.

Painting and Decaling.

Paint the complete wagon with Steam Era gloss wagon red or equivalent. Decals adhere best to glossy surfaces. Position decals as per prototype photos. Paint 10" white squares on the handbrake side end and sides again using the prototype photos for reference.

Weathering. Is always subjective and I leave it up to the modeller to weather the model as per reference photos using chalks, pastels or your favourite paints.



A typical WT no 32 is coupled to other units and is supplying Domestic Water. Note the small-stencilled 'DW', this indicated that the water was also available for drinking and as such the filler lids were always padlocked for safety.

Note the positioning of the 10" white handbrake squares on the sides and ends of the handbrake side.

Picture courtesy of Rob O'Regan



A Nice colour shot showing typical rusting and weathering patterns.

Photo courtesy of Mark Bau



A nice side-on shot of WT 33 taken by Rob O'Regan



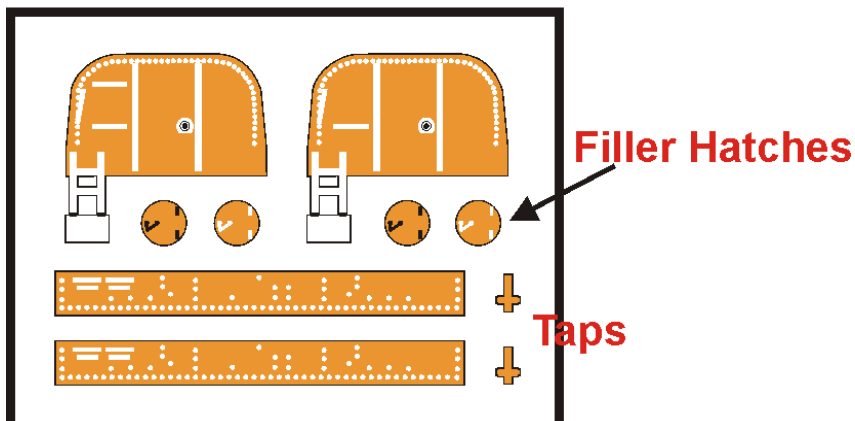
The filler hatch on a unit is not long for the scrapper torch shown here at Spotswood.

Photo courtesy of Mel Skinner



Completed model weathered, decaled and with couplers fitted.

Brass etch



Brass etch

For more information and photos see www.spiritdesign.com.au, Rob O'Regan's website <http://www.robx1.net/> or Mark Bau's <http://www.victorianrailways.net/> or Peter Vincent's <http://www.pjv101.net/index.htm> .

Any alterations, suggestions or queries please contact me.

Email chrispearce@spiritdesign.com.au

Spirit Design ABN 92 510 718 068

www.spiritdesign.com.au