

1037: Victorian Railways- V/Line flat wagon: S - VFDA.

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



VFDA 115 fully loaded Centre Yard Melbourne 14/07/1979. Photo courtesy of Rob O'Regan.

Basic history notes: The first two flat wagons were imported from the American Car and Foundry Company in the U.S.A. and were assembled at Newport Workshops, which satisfied the Railway's needs until the outbreak of War World II.

With the urgent need for wartime supplies to be shipped around the system, 99 'E' wagons were stripped to their floors to become the new 'S' wagons retaining their original 'E' numberings. The kit is based on these units. From 1946 a number were sold to Oil companies or utilised for carrying petroleum-based products after tanks were fitted. With a change in needs by the railways, a large number were rebuilt back into E wagons between 1947-1949. 1959 saw 'S59' converted to QC traffic and in 1962-63 'S26 & S60' were modified for cable drum transportation.

By the late 1970s, only six wagons remained in revenue service, numbers 1, 2, 50, 77, 108 and 115. 'S1' and 'S115' were the only ones of the group to receive container brackets. From 1979 the wagons were to receive the four-letter code of VFDA, however, 1 only, number 115 received this coding, the others retained the original codes before being scrapped by the early 1980s. Up until being scrapped, the wagons were running both Arch bar and plain bearing bogies.

This kit is also ideal for anyone wishing to convert it to a 'TWF' tank wagon.

Equipment & Materials: Exacto knife (blade no 16 or similar), 800-grit aluminium oxide sandpaper, small flat needle file. Fast-drying wood glue like 'Selleys Exterior PVA', 'Selleys Kwik Grip' water-based, a soldering iron or super glue are required for completion (all recommended: usual disclaimers).

Soldering notes: *When removing any item from the brass etch with an Exacto knife, please take care. Cutting should be done on a self-healing mat using a few score marks rather than the cut once method. Make sure that the brass is clean before soldering by using a brass cleaner like Tarnoff, very fine wet and dry sandpaper or using a fine wire brush in a Dremel to lightly polish the surface front and rear whilst taking care not to damage the etch itself. Depending on your skills some soldering is required but you could use superglue. It's up to you the modeller to decide your skill level. It is assumed if you use solder you will also be fluxing the joints with Carr's Red label flux or equivalent.*

Assembly 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.*** As there are several ways to build this kit, I will leave it up to the builder to decide. The best way is to assemble the brass components onto the timber sub-assembly. The wooden underframe is best glued with a 'PVA' woodworking glue and the assembled frame is glued to the brass decking using 'Selleys Kwik Grip'.

The Etch:

1. Attach the 1015's Microtrains couplers provided to the underside of the deck (**P2**) using the screws provided. Trim the excess screw poking above the deck and file flush. You can remove the couplers now and continue with the assembly. In addition, you may wish to just glue the couplers in place and can do this step later.
2. Cut the main deck etch free (**P1**) from the surrounding brass and slightly roughen the back (plain brass NOT the rivet side). This will aid gluing.
3. Glue (**P2**) using Kwik Grip to the (**P1**)'s back that you just roughened up. There is a slight overhang all-around that will be covered up by the side and end sill pieces. Make sure there is an even overhang all way round and carefully weigh the model down until the glue dries. Make sure you do not bump the deck out of alignment when weighting the two units together and once dry scrap away any residue glue that might interfere with the sides and ends. See the photo below.



4. Using the parts layout picture, glue the sides (**P3**) underneath the deck (**P1**) and make sure that the waybill clip is to the LHS of the wagon when viewed from the side i.e. the same orientation of the parts picture.
5. Test fit the end sills (**P4**) and if necessary trim the edges so that they fit within the sides (**P3**). Once satisfied, bend and solder the shunter steps up 90 degrees.
6. Glue the end sills (**P4**) to the wagon.
7. Glue the large brass weight (**P5**) into the space provided in the timber deck. See the photo below.



8. Using toothpicks as a guide, glue the underframe (**P6**) centrally along with the wagon, which will secure the weight also to the deck. Make sure that the bogies holes are aligned in the underframe and the deck using the toothpicks. See the photo below.



9. Glue the centre sills (**P7**) together and insert them into the opening in (**P6**). Align the holes up with the notches. See photo above.

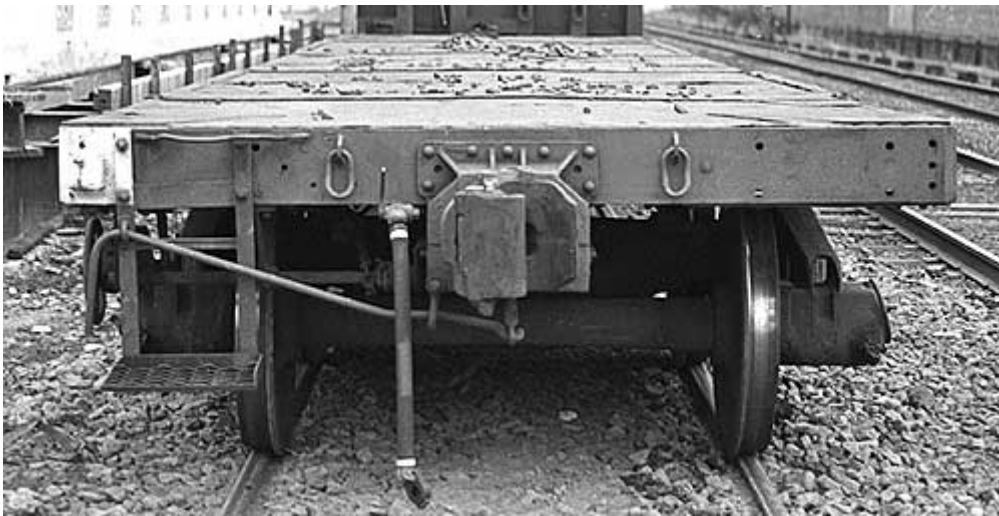
10. Glue the 2 ribs (P8) into the notches and holes provided in the assembled centre sill.



11. Trim (P9) the brake wheel hanger so that it looks like the item (P9a) below in the parts picture. I.e. trim it back to just a small 'V'. Glue this altered unit into the 2 small holes provided at one end of the timber underframe (P2).
12. Glue or solder the brake wheel (P10) to the brake wheel hanger (P9a).
13. Refit the couplers and attach the bogies. Test coupler height and if necessary use (P11) bolster shims to obtain the correct height. Generally, they are not needed.



Finished wagon fitted with Microtrain couplers, Arch bar bogies, and 36" spoked wheels.



End view of S77. Photo courtesy of Mark Bau.

Painting general: The completed kit should be thoroughly cleaned and degreased and then *lightly coated* with an *etch primer*, followed by a coat of Steam Era wagon red or equivalent colour from other makers. Once decals are applied, dull cote and weather to taste. Bogies should also be painted the same colour.

Paint a white square on the end sill and the side corner of the wagon where the handwheel brake is located. See the above photo. Also, paint another white square on the opposite end sill but on the same side previously painted. See the photo below.

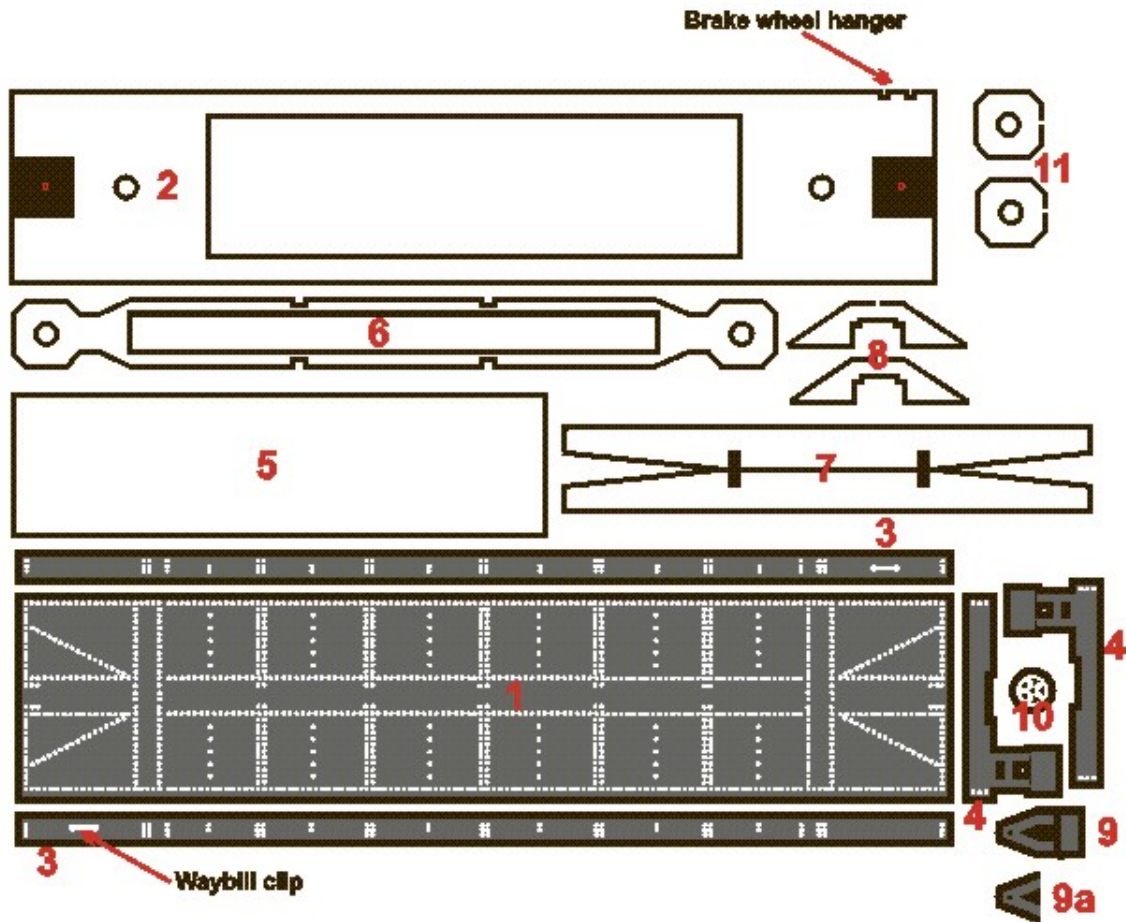
Decals: Position the decals on opposite corners of the wagon. See the photo of the wagon below or the model above.



S108 awaits its next duty. Photo courtesy of Rob O'Regan



S77 outside Dynon towards the end of its life. Photo courtesy of Rob O'Regan



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.

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