

## ABWPOA

### Allied Steel and Wire, Standard Wagon, Tiphook, 51 ton steel scrap wagon to PO 018a.



#### From 1988 onwards For 00, EM, P4 and S4

**Features:** resin body, white metal detailing parts, etched ladders.

**Required to complete:** 12mm plain 3-hole disc/disc brake wheels, waisted bearings, Instanter couplings, paint and transfers for the livery of your choice

### The Prototype

These wagons were built in Great Britain in the 1980s by the Standard Wagon Company of Heywood, using redundant tank wagon underframes. They were built to design code PO 018a. They have a 17' wheelbase, a length of 27'1", a gross laden weight of 50.75 tonnes, and a maximum speed of 60mph. The wagons are fitted with hand wheel brakes, air brakes and English Steel Pedestal suspension units. Disc brakes were fitted to one side of each axle, 180 degrees apart.

Some 40 were built in two batches, 20 in 1988/9, and 20 in 1989/90. All were hired to Allied Steel and Wire and were used on scrap traffic to the Allied Steel and Wire works in Cardiff. Some wagons are believed to have been used for internal traffic at Allied Steel and Wire. All were painted black with yellow chevrons on the buffer beam and around the upper angled surface.

These wagons were numbered:  
1988/89                      RLS4560-4579

1989/90                      RLS5213-5233

During the lifetime of these vehicles the prefix has changed to TIPH.

Because of the nature of the traffic many wagons have received minor body damage such as dents and score marks. Over the years there have also been minor changes to these wagons. At least some wagons have had ladders removed entirely or in some instances just the lower ladder.

Depending on the type of donor tank wagon some wagons have additional sections of steel work present on the underframe. Modellers are advised to examine photographs as these items are variable and not present on all wagons.

As far as 51L is aware all the wagons are in traffic or in internal use at the time of writing.

### Acknowledgements

51L thanks Philip Eames and Michael Fraser for their assistance.

### References

Modern Private Owner Wagons, David Ratcliffe, p75.

Railways in Profile No 9: British Railway PO wagons opens and hoppers, G Gamble, p21.

DEMU Update, Compendium #2, pp29-32.

DEMU Update, Compendium #4, pp12-20.

Private Owner Wagons, Vol 1, Marshall pp12-13.

Working Wagons, Volume 4, 1985-1992, D Larkin, p49

Model Railway Constructor, Oct-Dec 1986 (detailed series on other POA types and "modern" scrap traffic)

### Web information sources

Paul Bartlett's site

<https://paulbartlett.zenfolio.com/blackadder>

### Assembly

These wagons are of the 'fabricated' type i.e. welded construction. Butt and fillet welds are not always apparent, being raised, undercut or flush with the surrounding steel work.

Please read these instructions before starting to build your model. Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. We recommend wet fine 1200 grit emery (silicon carbide) paper for cleaning up castings or fine needle files. For assembly use we recommend superglue or an epoxy resin such as Araldite.

The Bill Bedford W-irons are supplied to ensure free running. These should be assembled following the enclosed instructions. The use of waisted bearings is essential when using this sprung suspension system.

## Body

It is desirable initially to wash the resin body in solvent to remove any mould release agent. We suggest the use of enamel or cellulose paint thinners for this purpose. Washing up liquid is **not** satisfactory. Clean off any mould release marks and flash using wet 1200 grit paper. Bore 0.4mm diameter holes in the coupling pockets and open up to a slot to accept couplings hooks of choice. Ensure the body lifting lugs (present on sides and ends) are clear of flash. Attach the door hinge casting in place in the lower section of the 5<sup>th</sup> panel, with the long thin lengths at the left hand side as shown in the drawing opposite. The casting will need its casting runners trimming prior to fitting so that about 1mm may be bent around the stanchion post.

## Oleo buffers

Bore buffer housing holes (2mm diameter) in the buffer beam to accept the buffer castings. Take care to ensure the bore is square. The buffer housing shank requires cutting to just greater than the depth of the buffer beam. Attach the buffers to the buffer beam.

## Ladders

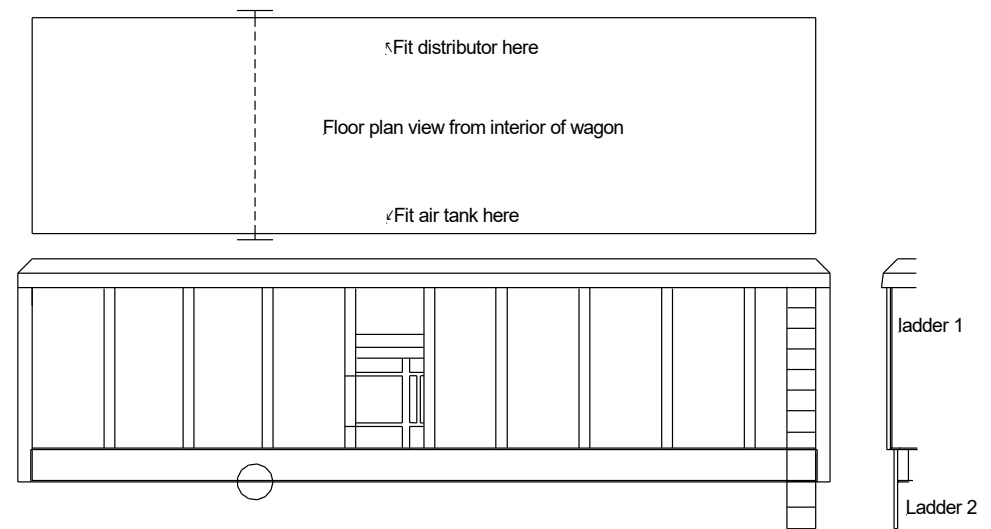
As built there are ladders at the right hand end of each side of the wagon. They consist of two sections: ladder 1, 8 rungs from the floor to the underside of the angled top; and ladder 2, 3 rungs from the solebar top to some two steps beneath the solebar. The ladders are positioned adjacent to the end with the lowest step of ladder 1 in line with the floor; the first step of ladder 2 is in line with the bottom of the solebar. We suggest that 1mm diameter holes are bored to seat the ladder ends. These should be 5mm apart. The ladders should now be prepared. This is probably the most demanding task in building this kit.

Remove a ladder from the fret and bend up the stiles. For convenience, the ladder baseplate may be attached by small pins to a piece of softwood. Thread the supplied 0.3mm diameter rung wire through the holes and solder in place. Cut the rung to length with side cutters, and repeat for each rung. Clean up using a fine file or minidrill and circular cutting disc to remove surplus wire and clean up stile edge. **Wear safety glasses if using a cutting disc.** Remove the base plate using a sharp craft knife, cut the ladder to length and attach in place. Repeat for the lower section of ladder.

## Underframe detail

Attach a length of the 0.7mm wire across the underside of the solebars to support the brake handwheels. This should be about 32mm long and on viewing the wagon side is slightly to the left of the third stanchion (see drawing across). Attach the brake handwheels to each end of this cross shaft. Note: when viewing the opposite side, the wheel will be to the right of the seventh stanchion counting from the left of the wagon.

Fit the air reservoir to the underframe. Viewing the wagon from the side in the drawing across place the tank next to the solebar in line with the door panel so that the horizontal pipe is to the left. The distributor should be next to the air tank, and inboard of it. Please be aware that the position of these components will depend on their location on the 'donor' tank wagon and may therefore vary.



Note that some wagon underframes have been fitted with two transverse girder assemblies. If required, these may be fabricated from plasticard.

## W-irons

Prepare the Bill Bedford pedestal W-irons as per the enclosed sheet. Place the W-irons on the floor, using the suspension attachment bolts for alignment. Check the rail to sole bar height; this should be 14mm from rail head to the centre of the buffers. It is very unlikely that any packing is required. If so, use a section of standard 80gm<sup>-2</sup> paper.

The W-irons should now be firmly glued in place. If the wagon is gently pushed along a flat surface it should run in a straight line. If not, one or both of the W-irons are out of line and should be adjusted. Attach the suspension unit castings to the solebars. Ensure there is a slot of sufficient clearance to allow free vertical movement of the bearing. We expect that some material will need removing.

## Brake gear

This wagon has disc brakes on one wheel of each axle diagonally opposite each other, so no brake shoes are required. Suitable wheels may be obtained from Alan Gibson. Alternatively use a conventional three-hole disc wheel with etched brake discs fitted to two wheels. Suitable etches are available from MJT.

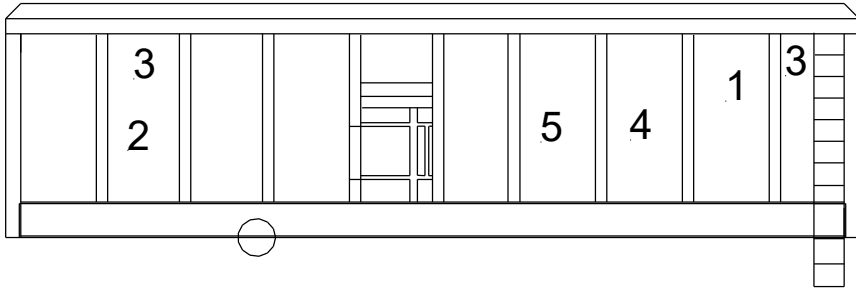
## Finishing

Clean and degrease your model prior to painting. Use either an etching primer, such as Precision Paints PS1 or Halfords primer for resin car bodies. Bear in mind that resin castings are prone to static electricity which will attract dust. Build up the paint thickness slowly, using many thin coats. After painting clean the model using a tissue soaked in white spirit. Place decals as required.

## Livery

These POA wagons have been used by a small number of operators over the years and are a black colour with yellow chevrons along the upper angled surface and buffer beam. However after time the livery was more consistent with weathered rust!

The model should be spray painted black. The yellow chevrons are approximately 4 mm wide with 3mm wide black between them, and are at 45 degrees to the side. We suggest making a small plastic jig and marking the position of the yellow lines using a pencil. The chevrons can then be brushed in using yellow paint. Modellers are referred to the references above for further information. Numbers etc. for 5214-5233 may be found on 51L's transfer sheet TRANPOA2. TRANPOA1 for 4560-4577 is sold out.



- 1 Allied Steel and wire logo
- 2 Traffic panel
- 3 OLE warning panel
- 4 Maintenance detail panel
- 5 Minium curve panel

## Interested in air-braked wagons?

Contact Diesel and Electric Modellers United  
[www.demu.org.uk](http://www.demu.org.uk)

## Wizard Models

Wizard Models stocks a wide range of kits, components, and other necessities for the modeller in 00, EM and P4. Contact us at:

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