Prototype
Replica Model Railway Products PRMRP

Stockists of 7mm Modern Image Kits

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Building Instructions

7mm/0Gauge BRL-012
Class 02

SCALE MODEL PRODUCT FOR ADULT MODELLERS ONLY.
WHITE METAL CONTAINS LEAD - WASH HANDS AFTER USE.
MAY CONTAIN SMALL PARTS. ETCHED BRASS HAS FUNCTIONAL SHARP EDGES - HANDLE WITH EXTREME CARE

Thank you for purchasing this kit.

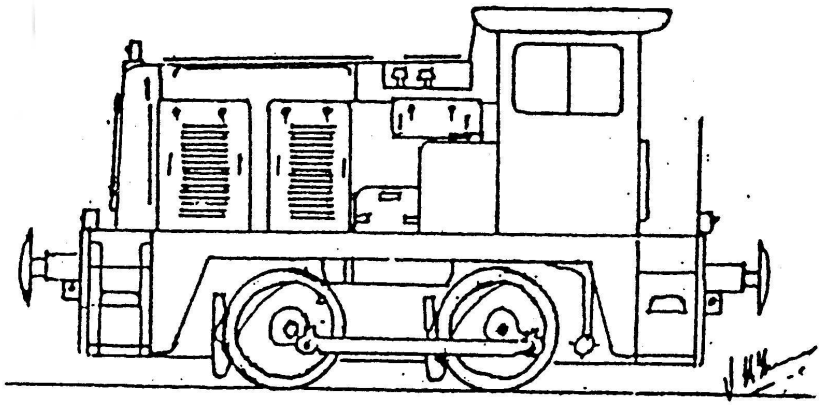
This instruction pack should provide guide for building this model given some experience of soldering and the basics of etched kit construction.

Please read all the pack before starting to build.

Drawings and photos are essential for builders to acquaint themselves with the prototype they wish to model.

For builders of modern image in 7mm, consider joining MIGO+1, the Modern Image Gauge 0/1 organisation. For more details see the MIGO+1 website at www.migo.org

Transfers are available from Fox Transfers.



PARTS REQUIRED TO
COMPLETE.

2 AXLES SLATERS DRIVING WHEELS
REF.7842 02.
MOTOR. MASHIMA 1833. MOTOR MOUN
AND 40.1 GEAR SET.

YORKSHIRE 0-4-0 DIESEL SHUNTER.

This kit makes a model of the Yorkshire 0-4-0 Diesel Shunter as bought by British Railways, later to become Class 02. Many of these were later sold for Industrial use and a few still see active industrial service today.

The kit was designed with Two objectives in mind, economy and ease of construction. No Etched Brass and White Metal kit is easy to build, until a few basic soldering skills are mastered, but we feel this kit is for the inexperienced, perhaps a better proposition, than some similary priced kits currently on the market.

By no means are we suggesting this is a beginners kit, the instuctions assume some knowledge of kit building and knowledge of small diesel locomotives, to do otherwise would have priced the kit way beyond the intended price bracket. Therefore we hope you, the customer, accepts this compromise

GENERAL INSTRUCTIONS.

Please read this section carefully especially if this is your first etched kit. Many modellers fall shy of working in this medium, but once a few simple skills are squired you will find the skies the limit.

First, you are employing Many of the skills the scratchbuildder uses with the exception that most of the fretting out of parts is done for you, but mainly due to economies which have been used by the manufacturer ie: making the price affordable by you the modeller, some cutting and trimming of parts will become necessary from time to time. Where this is the case we have tried to highlight this in the instructions.

We have been constructing etched Brass kits for a number of yeaes so here is a list of tips hopefully, of some use to the novice and expert alike.

You will need a soldering iron of at least 40 Watts. A Weller 40Watt is ideal. 145° Solder (Browsters or Carrs) and Carrs Green Label Flux. Solder paint may also be found useful. Don't worry if you make a mistake, Brass is very forgiving, just unsolder, clean solder off parts and try again. Remember you are not soldering electrical joints, you first run flux with an old brush onto area to be soldered then carry some solder on the iron to joint. Do not dwell iron to long on one spot otherwise the metal will distort, Practise on some scrap first. A glass fibre brush available from Draughtsmans shops or Model suppliers should be used to burnish the metal along the joint and then with the aid of scrapers and sharp scalpel, remove excess solder afterwards.

Strapping and small details are best applied using Carrs solder paint. This will prevent clogging up the plank detail with solder. Apply a thin coat of solder paint to the back of the component,place in position and hold in place with a thin knife point. Run a little liquid flux along edge of component and apply clean iron with excess solder removed from tip to the top of component until molten solder bubbles from edges.

Corner strapping is best applied by coating half of strapping in its flat state, soldering this half to the vehicle end then apply solder paint to the other half and bend round to side of vehicle using a file.

Where hand rails are to be attatched to White Metal, Tin end of wire with 145° solder, apply a spot of flux to joint and apply iron to the wire. Not the casting.

To cut parts from fret use jewellers snips for the large parts and a Stanley Knife on a hard surface for the small detail parts. Remove the tabs and burrs using a sharp Swiss file.

Folds in Brass are usually made with half etched lines on the inside. You will need bending bars for long folds, but a good 3" smooth jawed vice and a pair of blunt nosed pliers should surfice for most models. For the main construction use ordinary 60/40 tinman solder, but for detailing you can use 145 low melt solder, this is ideal for attatching overlays and with practise larger White Metal castings to Brass. You will find it easier to solder if you burnish the Brass with a fibre brush and keep iron bit clean.

Where you need to fit layers of Brass together refered to as laminating in the main instructions ie: coupling rods, I find it easier to allign the parts together then carefully put in vice, run solder around edges, then file and clean up.

You will also require a good pair of tweezers, a pin vice with a selection of drills from 0.5mm to 2mm. Small screwdriver and some very fine pointed nosed pliers.

DO NOT rush the construction and clean up as you go. If you do not regularly wash your model the flux will soon turn everything Green, and if you try to glue any small parts they WON'T. In our kits all the White Metal castings can be glued if you desire. If using superglue use a good brand such as PERMABOND. And make sure surface to be glued is clean. It will help to polish castings with your fibre brush or an old suede brush.

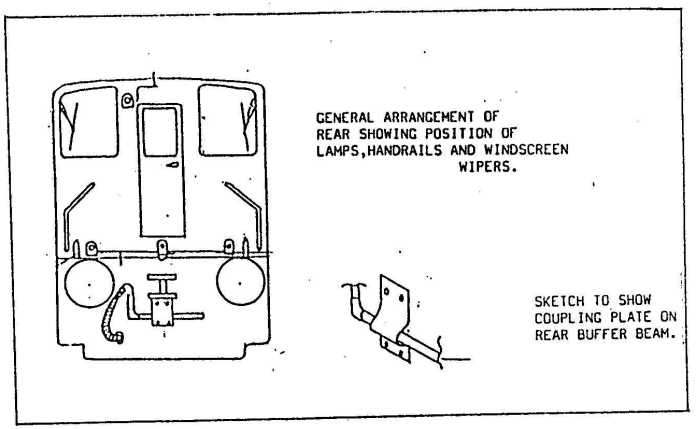
You may wish to solder your White Metal castings together using Carrs 70° Red Label solder and flux. The iron should be run at a much lower heat so the castings are not melted, this being achieved by using a domestic light dimmer switch, wired up the same as for a light, but substituting a plug and the iron

for the light and lamp holder. Experiment with adjusting the switch until you find the range of temperatures at which the solder melts, but a scrap casting does not. (NOTE...as the iron is running on a lower voltage, it will take longer to heat up,so when you think the adjustment is correct, do check a few minutes later on another scrap casting to see that it doesn't melt). When attatching White metal fittings to Brass, the surface of the Brass must be tinned with 145° solder, (or alternativly Carro 188° solder paint). To allow the solder to grip . The casting can then be soldered in place and fillets of 70° solder run into place with no risk of melting the casting.

Try to complete all the high temperature Brass soldering before you attatch all those lovely delicate White Metal fittings!

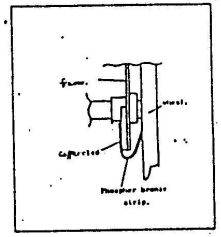
With this kit, a small amount of fileing will be needed.. but this amounts to no more than opening out small holes to receive componenets, or a couple of strokes with a file to get parts to fit. Any slight gaps are easily filled with a fillet of solder. Holes should be opened out using either a series of tapered reamers or progressivly larger drills. Do not try putting a large drill through the hole at once, as this will bend and tear the metal. Twisting a round or triangular file in the hole does same job slightly less accurately, but rather more quickly!

We hope you enjoy building this kit after all it has been manufactured for your pleasure.

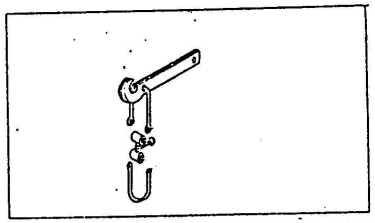


GENERAL ARRANGEMENT OF REAR SHOWING POSITION OF LAMPS,HANDRAILS AND WINDSCREEN WIPERS.

SKETCH TO SHOW COUPLING PLATE ON REAR BUFFER BEAM.



SUGGESTED PICK UP ARRANGEMENT IF USING PLASTIC CENTRED WHEELS OR WHEELS INSULATED BOTH SIDES.



YORKSHIRE 0-4-0.

CHASSIS PARTS IDENTIFICATION AND SUGGESTED ASSEMBLY SEQUENCE.

It is strongly suggested that at least the basic chassis is constructed before the body.

Part No. C1,C1A. Chassis. Fold up as shown on drawing and solder up square. Fit Part C1A using ½ etched marks as a guide for position,slots in this part is for ease of making simple compensation, if you feel your modelling skills are up to it and you think the model requires it.

Fit Brass bearings. Ream out if necessary. Cut 2 lengths of 0.9 wire 40mm long and fit in holes to make brake hangers.

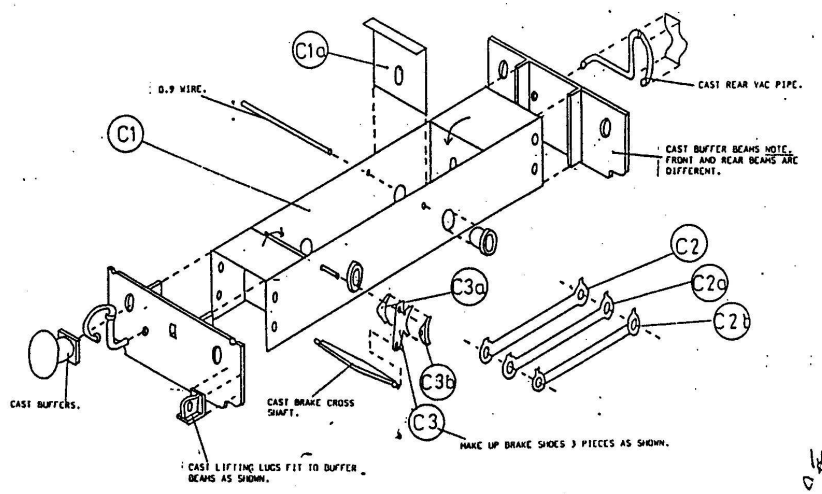
Part No.C2,C2A,C2B.Coupling Rods, Laminate together as shown, ½ etch rod to outside,

Now assemble wheels, motor, and rods to chassis If fitting plunger pick ups drill and fit now. Fit motor, and gear set to leading axle, with motor at approximately 45% facing rearwards, before proceeding any further, attatch wires to motor, and check all runs free.

Part No.C3,C3A,C3B,Brake Shoes, Make up as shown on Drawing and fit to chassis, ensure these do not foul wheels.

Cast Buffer Beams,these can either be screwed to chassis with 8BA nuts and bolts (not supplied) or soldered in place.
If soldering, make basic footplate assemble first to ensure final fit is correct. Note front and rear beams are different.
Fit remaining castings and make pick ups as our suggested drawing, or to your own liking.

YORKSHIRE 0-4-0 CHASSIS ASSEMBLY.



DRAWING NOT TO SCALE.

YORKSHIRE 0-4-0.

BONNET. PARTS IDENTIFICATION AND SUGGESTED ASSEMBLY SEQUENCE.

Part No.9. Bonnet Wrapper. Form Bonnet to shape using a length of 1/4" bar.

Part No.10&11. Bonnet Rear. Check your forming of bonnet to radius on front and rear, and carefully solder in place inside each end.

Part No.12&13. Bonnet Doors. Fix into correct position as shown, drill holes through bonnet to make fixing of handles easier.

Part No.14&15. Bonnet Top Covers. Fix to bonnet as shown.

Now solder this assembly to footplate and cab, make sure footplate remains square.

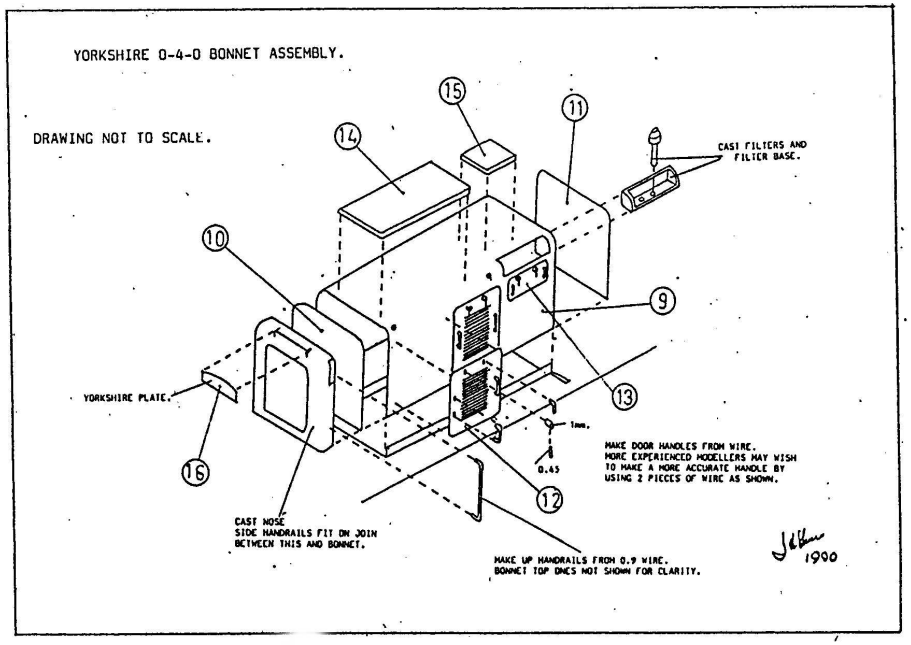
Fix cast nose and remaining castings.

Part No.17.18. 18A.& 18B. Fuel Tanks nad Battery Boxes, Make up as shown on footplate drawing, and fit each side between cab, bonnet and footplate.

Make all handrails and handles, and fit in position as indicated on drawings.

CAB DETAIL. Because this kit was designed with economy in mind, the only cab interior fittings supplied are the Dash Panel and Switch Panel, items very difficult to convincingly scratch build. On the prototype model we fitted these only, and as this is all that shows above window level, once glazed and painted, with a crew man, running on a layout, we feel this is adiquate. But, with a bit of reserch by yourselves, using plasticard for floor, bulkhead and seats, and pins for handles, a very convincing, detailed interior can be modelled at virtually no cost.

We have provided in this kit a screw coupling, but for intensive layout use, we would suggest you replace this with a more robust item. The one provided was designed as a cosmetic item, or for use when an auto coupling system is being used.



YORKSHIRE 0-4-0.

FOOTPLATE. CAB. PARTS IDENTIFICATION AND SUGGESTED ASSEMBLY SEQUENCE.

Part No.1&2. Footplate and valances. Take valences part 2, and form to shape, carefully forming steps each end, hand rail holes are to front, solder these to underside of footplate, using ½ etch lins as a guide.

Part No.3. Sandbox Valance Ends, Solder these to valences as shown on drawing.

Part No.4. Sandbox Covers, Solder these to valances and footplate, as shown on drawing. Form Bonnet locating strips on top of footplate.

Attatch footplate to chassis using 8BA nuts and bolts, carefully solder nuts to footplate top, a little oil on threads should stop all soldering up solid.

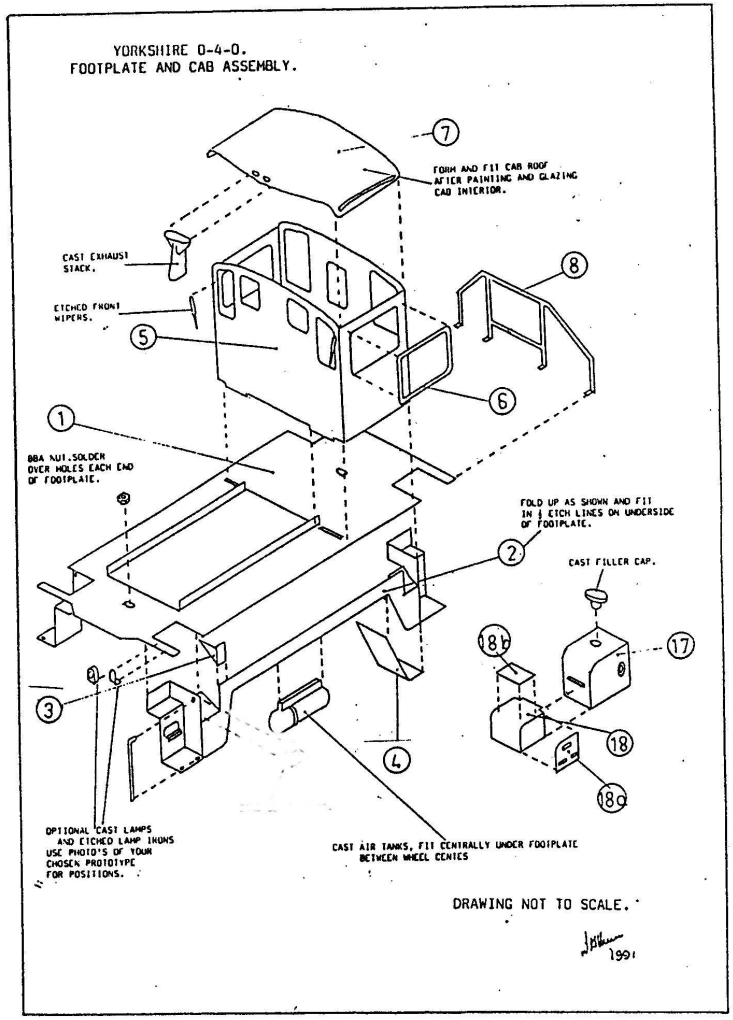
Part No.5. Cab, Form into box and solder together.

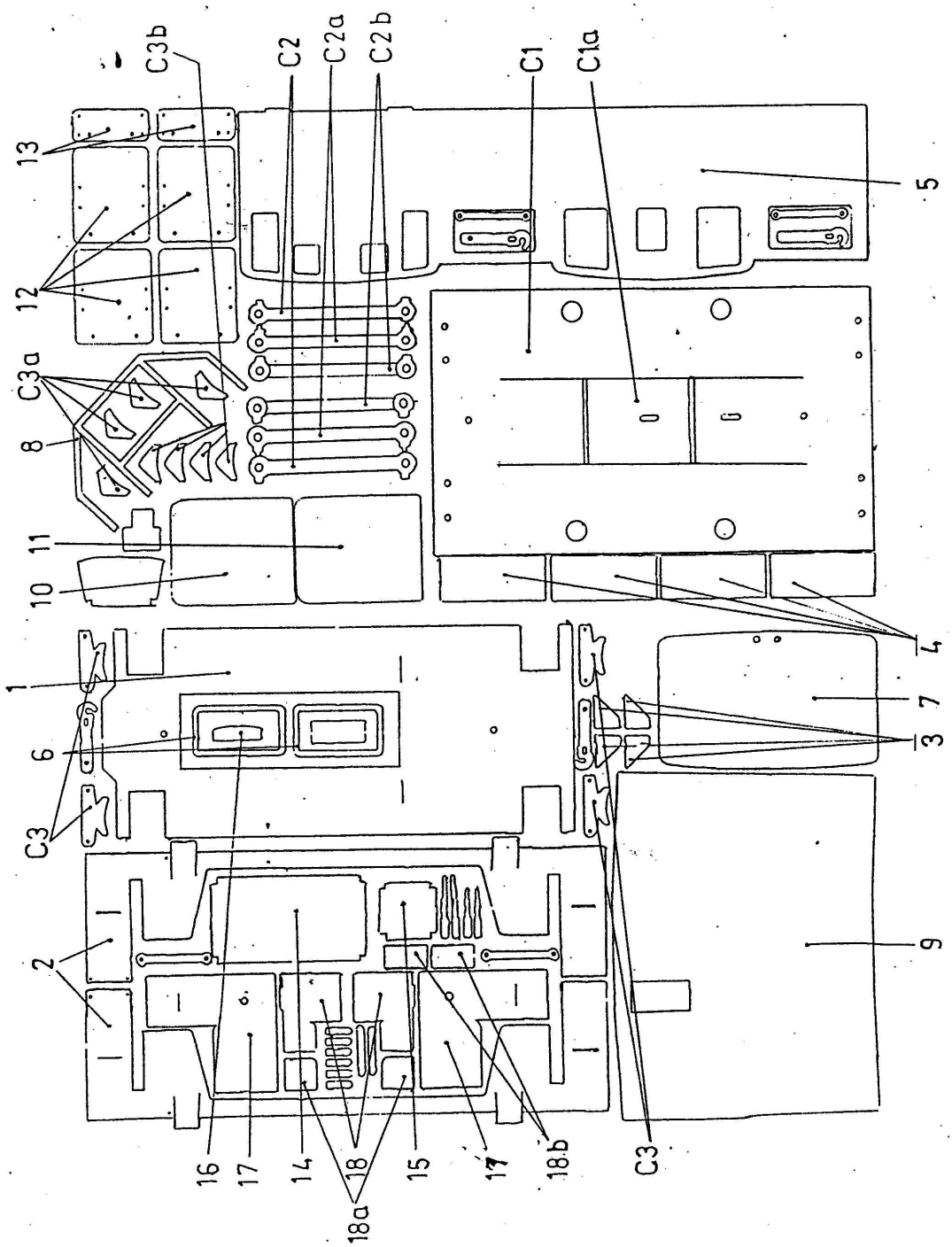
Part No.6. Window Frames, Solder each side of cab. Fit cab assemble to footplate, using tabs on bottom of front, to line up with slots on footplate.

Part No.7. Cab Roof, Form to shape and check fit, leave to one side until final finishing.

Part No.8. Rear Handrail, Attatch to rear as shown, or if more experienced, use etching as a pattern and make your own from 0.9 wire.

Fit castings shown on corresponding drawing after bonnet is completed and attatched to model.




C3b
C2
C2a
C2b
C1
C1a
13
5
12
C3a
8
11
10
4
1
7
6
3
C3
2
9
16
17
14
18
15
17
18b
C3
18a