Hesketh Scale Models

Orenstein and Koppel MD2, 4wDM 26HP Diesel Locomotive

1:35 Scale 16.5mm Gauge, Open Cab Version

Orenstein and Koppel's MD series of locomotives were introduced in 1934 with the MD1 (single cylinder engine), the MD2 (two cylinder engine) was introduced shortly after in 1935. The last MD2 was built in 1955 when it was replaced by the MV series

The closed cab version of this model is an accurate representation of the Orenstein and Koppel MD2 4wDM 26hp 6 ton diesel locomotive currently preserved at the Leighton Buzzard Light Railway in Bedfordshire. This is the only surviving example left in the UK although numerous examples survive throughout Germany and the rest of Europe.
In 1965 the Locomotive was supplied by O&K's UK dealer, William Jones of London, to the Woodham Brick Co in Buckinghamshire. It later saw service at several other locations before finally arriving at Leighton Buzzard in 1970. Whilst at Leighton Buzzard, the loco has been known by the names Pam and Falcon. It still carries its original running number plate of 8986.

This kit has been designed from dimensions and photo's taken from the locomotive at Leighton Buzzard as well as numerous other photo's taken from examples throughout Europe. Various alternative name plates and running numbers have been included to give the builder options to construct slightly different examples as required.
The model is designed to run on 16.5mm gauge track (i.e. OO/HO gauge), which is a near accurate representation of the 2 foot (610mm) gauge of the Leighton Buzzard Light Railway.
Please note that this model is not a toy, it contains small parts and is not suitable for children.

The kit is designed for soldered construction and good soldering skills are required. Solder is a matter of personal choice, however Carrs 179 Deg C. No Clean Solder Cream is particularly recommended. White metal and small etched parts should be glued in position with either a two part epoxy resin such as Araldite or Cyanocrocate adhesive (super glue).
A rivet punch is required and it is recommended that rivets are punched prior to parts being folded into shape. It is important to study the instructions carefully and care should be taken not to lose any small parts.
Construction of the chassis is recommended prior to commencing work on the locomotive. It will then be possible to check the fit of pickups and wiring throughout construction of the model.
Please contact us if any parts are found to be missing or damaged and they will be replaced. Parts lost/damaged during construction can be replaced at cost by contacting us via email or post.
Construction is detailed by a series of photographs but please contact us if unsure as further advice can be given if required.

Tools Required,

The following tools are recommended for use during the construction of this kit,

A set of bending bars for folding etched brass components, soldering iron, rivet punch, a pin vice and various small drills, broaches/needle files for opening up holes and cleaning up parts etc, a small engineer's square, small hobby knife/scalpel for removing etched parts from frets etc.

Parts List

Etched components,

1, Etched sheet 1, part 1,
2, Etched sheet 2, parts 2 - 4A
3, Etched sheet 3, parts 5 - 30
4, Etched sheet 4, chassis, brakes
5, Etched sheet 5, control handles
6, Etched sheets 6 and 7, name plates

White metal parts

1, Gear box, bottom x 1
2, Gear box, top x 1
3, Axle boxes x 4
4, Chassis weights x 4
5, Buffer plates x 2
6, Coupler pockets x 2
7, Filler caps x 2
8, Various fittings x 3

Chassis

1, Wheels x 4
2, Axles x 2
3, Motor
4, Gear wheel/ worm x 1
5, Bearings x 4
6, PCB strip for pickups,
7, Wire,
8, Pulley x 2,
9, O rings x 2
10, Washers x 2

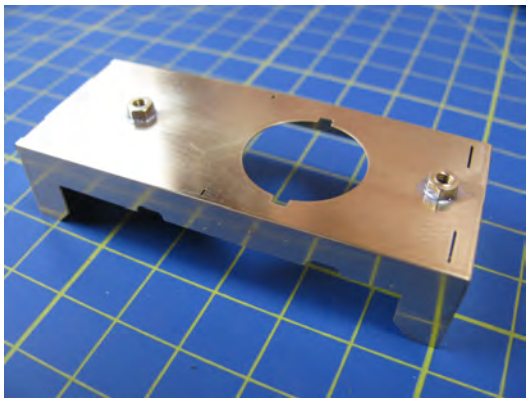
Also included

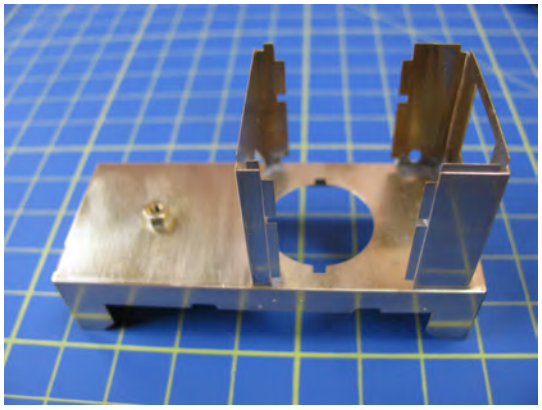
1, 0.33mm brass rod
2, 0.45mm brass rod
3, 0.9mm brass rod
4, 1.5mm brass rod
5, 1mm brass L section
6, 8BA screws x 2
7, 8BA nuts x 2
8, T Handles x 4

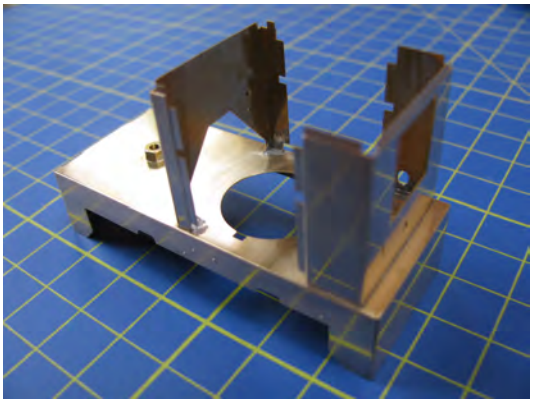
Please read all instructions carefully prior to starting construction of this kit.

Construction,

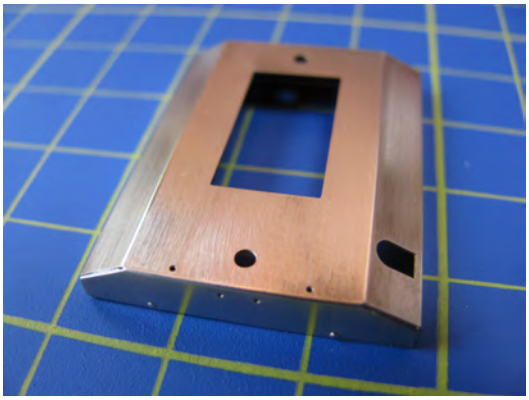
1, Punch the 8 half etched rivets on part 1, fold to shape ensuring all is square and solder. Solder the 2 8BA nuts in place (required to hold chassis in place). Fold parts 2 (bonnet front) and 3 (bonnet rear) as shown and open up the location slots on part 1 (if required). Once happy all is square and a good fit is obtained solder parts 2 and 3 into the location slots on part 1.

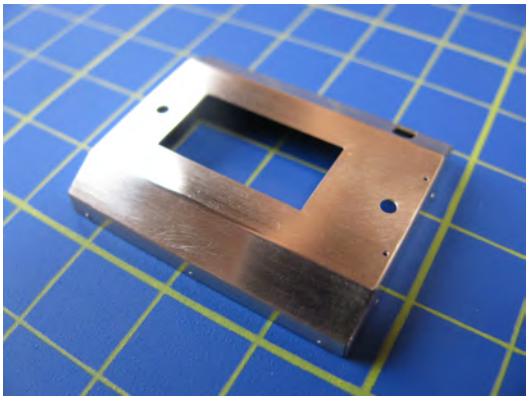


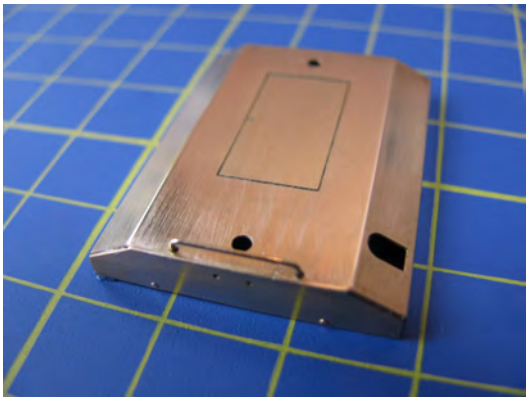




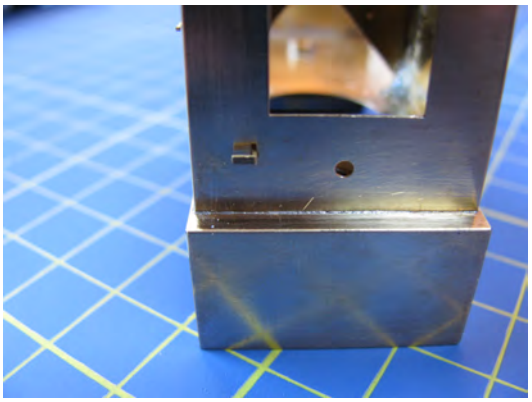
2, There are two alternate bonnet roofs (4 and 4A), one with an exhaust opening and one without. Chose which one is required and punch all 10 rivets prior to folding. Fold to shape as shown taking great care to use a minimum of solder (a tight fit is required when placed onto parts 2 and 3). Solder or glue part 5 (engine access cover) in place and use .45mm brass rod to create the small handle situated at the front top of the bonnet.



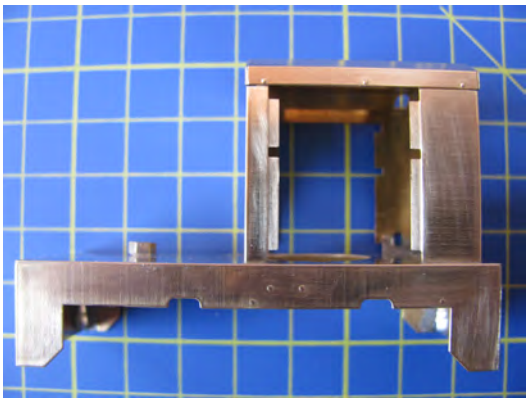




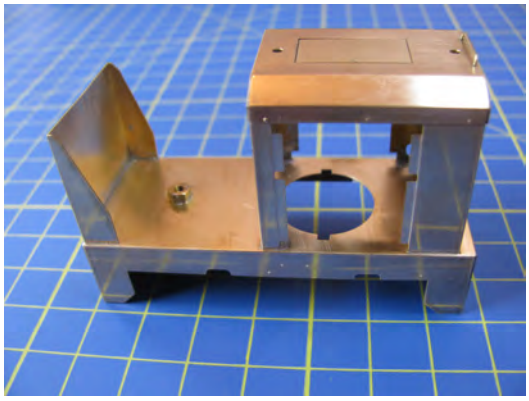
Part 2A (decompression lever) should be folded into a U shape and secured through the slot on part 2 as shown.

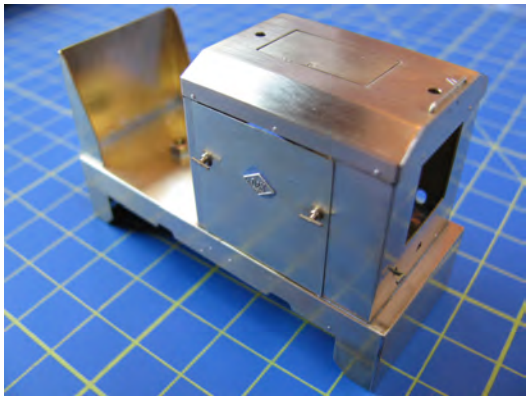


The bonnet roof should now slide over the half etched tabs on parts 2 and 3, once happy all is square it can either be fixed in place or left loose to allow access. It should overlap slightly (by half the thickness of the brass sheet) as per the prototype.

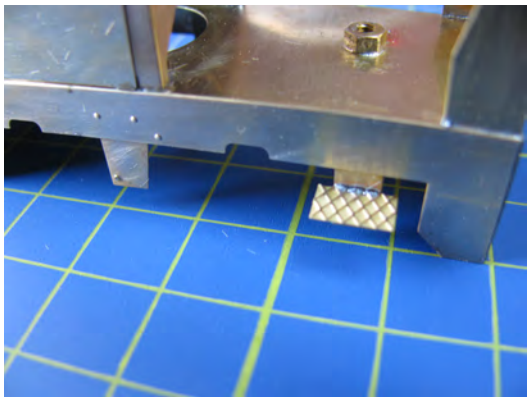


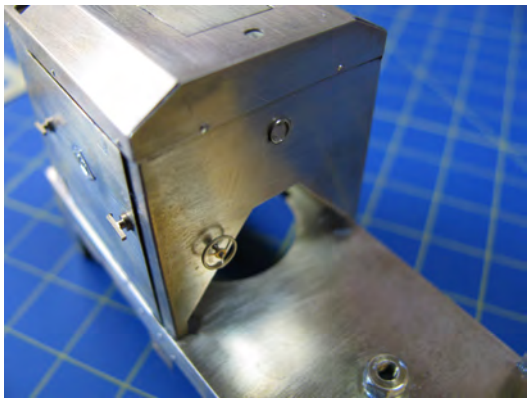
3, Fold part 6 (rear cab cover) to shape and solder in place using the location slots on part 1. Select which bonnet access covers to use (either 7 or 7A) and fix T handles (x 4) in place. The larger of the O&K makers plates can be soldered in place now or glued in place later. The access covers can then be soldered or glued into place spanning parts 2 and 3 (a small gap should be visible just above and below covers when fixed).





4, Part 8 (x2) should be soldered into place in the location slot provided on part 1 (sloping side to the rear of the locomotive). Open up the slots on part 9 (x 2) and solder the chequer plate steps (2 x part 10) into place. They can then be fixed into the location slots again on part 1.
Fix part 11 (control dial) as shown to the rear of part 3 (three are provided and can be fixed as desired). The small hand wheel (part 12) can be fixed in place by securing with a small length of .45mm brass rod.

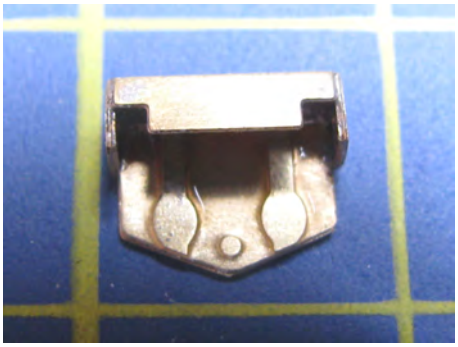




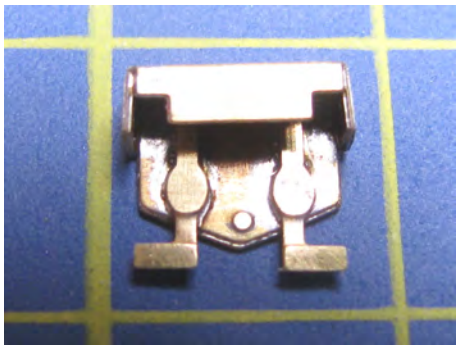
5, Punch the 3 half etch rivets on part 13 and fold to shape as per photo A. Part 14 should be fixed as shown in photo B with parts 15 and 16 overlaying (photo C). Parts 17 and 18 should overlay parts 15 and 16 (photo D). A small length of .45mm brass rod should be passed through the two holes on part 13 and part 21 (speed control hand wheel) and fixed as shown.

A

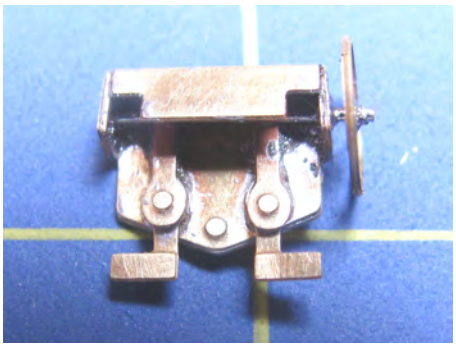
B



C



D



6, Take the two main white metal parts of the gearbox, clean off any flashing and fix together using adhesive as shown. Add handle (part 22), which should be secured in place by drilling a small hole and inserting a short length of .33mm brass wire. The small oval shaped access cover (seen just in front of the seat to the right) should be be fixed as shown.