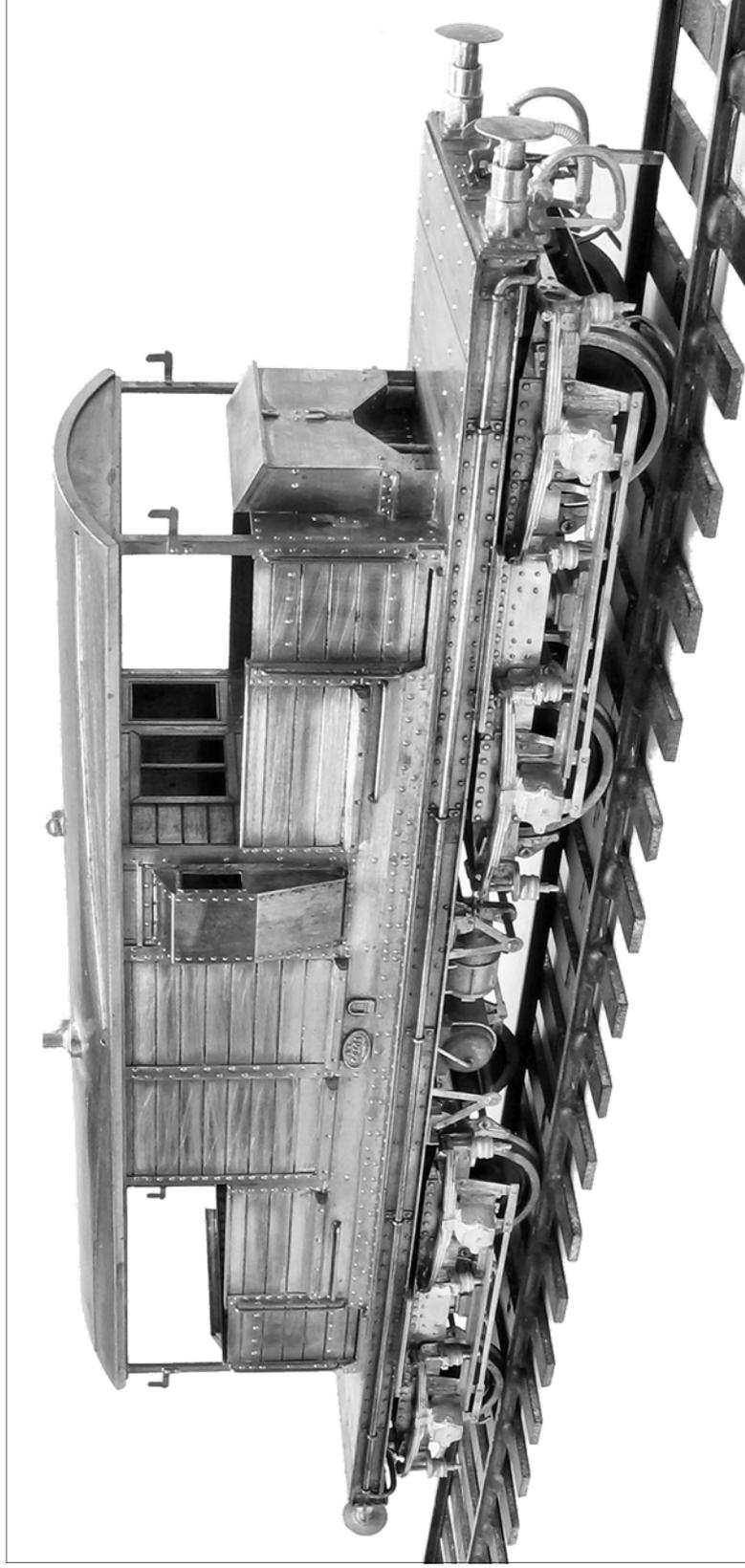


Queen Mary Bogie Brake Van



25 of these iconic bogie brake vans were built from new by the Southern Railway from July 1936 for operating on fast fully fitted goods trains. These vans were built to diagram 1550 but were universally known as "Queen Marys" and numbered 56282 to 56306. After nationalisation they continued in general use into the 1970s and became distributed around many parts of the British Railways system. From 1961 vans started to receive additional air brakes.

These air brakes helped the vans to have remarkable working lives beyond the 1970s on special duties and departmental service. Examples working throughout the first decade of the 21st Century.

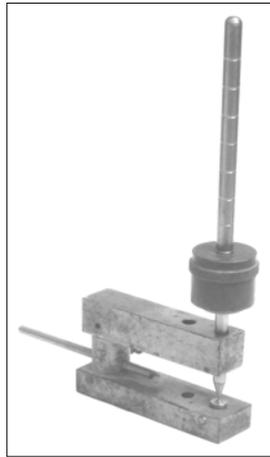
In 2008 I surveyed an example belonging to EWS and stationed in Bescot Marshalling Yard for the development of this kit. **Wheels**, 3'7" standard coach disc are required to complete (Slater's Cat No 7122, Old Road, Darley Dale, Matlock, Derbyshire, DE4 2ER, Telephone 01629 734053).

To try and do justice to such an iconic prototype as the Queen Mary brake van required a kit of a sophisticated level. The amount of work required is far more than would normally be expected for a wagon. Approach the construction with the same mindset as you would have for say a small locomotive. I hope you find it then gives you many hours of pleasantly challenging model making and provides a brake van of distinction.

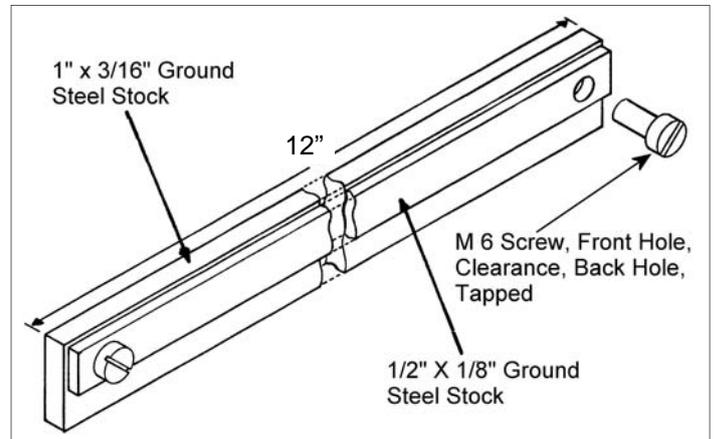
I am happy to stand by this kit as the best work that I can achieve and its probably as good as I will ever get. I hope that you find this reflected in your modelling experience.

Because of the kits sophistication I have made a number of assumptions about you the modeller. I assume that you are relatively experienced and require the instructions to show when and where to fit parts but not how to because you have your own construction techniques. If this is not the case all is not lost as you can contact me for extra advice.

There are a lot of embossed bolt and rivet heads and I assume you have some form of rivet press in your tool kit. I use and would recommend the one produced by Dick Ganderton, Graskop, Dewlands Road, Verwood, Dorset, BH31 6PN, Tel 01202 822701. It is available with a number of different sized punches and anvils but if you were only going to get one size then I would recommend the 7mm scale 1½" diameter.



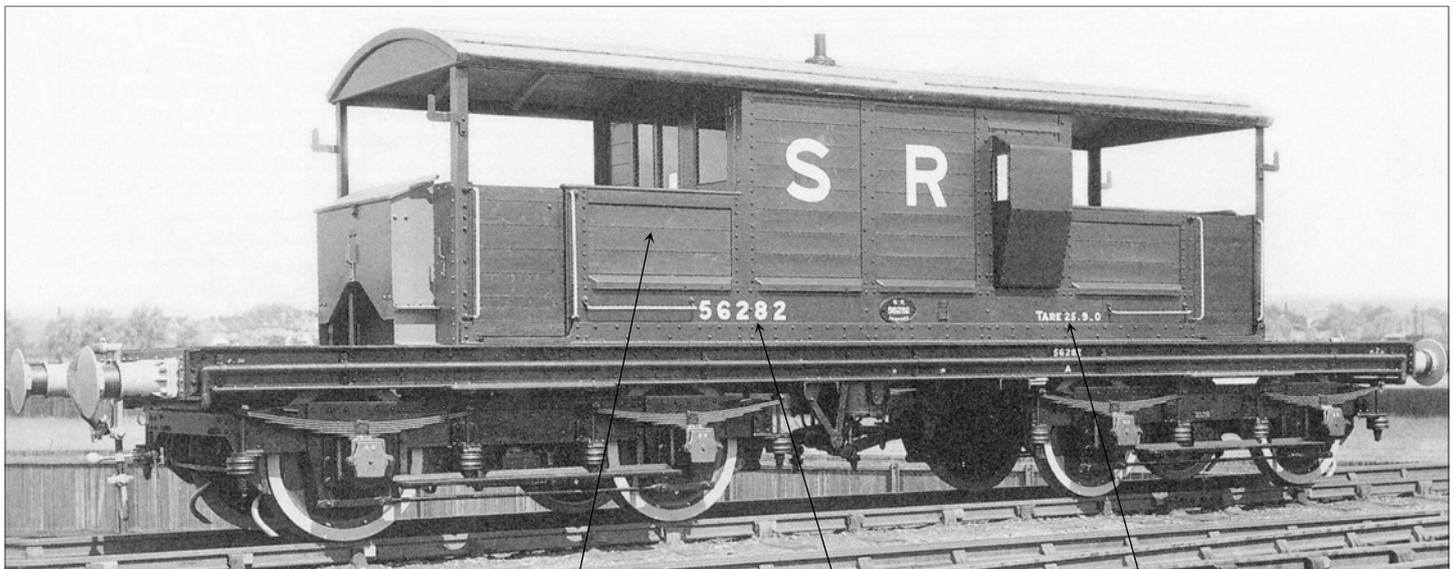
I assume that you have a set of traditional folding bars similar to mine. Particularly as a number of parts require folding after bolt heads have been embossed. By lining the face of one of the bars with two or three layers of masking tape, you can still clamp the part without crushing the bolt heads but you wont get such a tight fold, so deepen the fold line with a triangular file.



I assume that if required you will be happy to carry out additional prototype research with regards to livery and detail changes post 1970. I expect that most diesel and electric modellers will already have their chosen prototype and reference photos.

Reference book:- An Illustrated History of Southern Wagons, Volume Four, OPC, ISBN 0 86093 564 7.

I recommend visiting www.bluebell-railway.co.uk/bluebell/cw_news/56290.html This site features the superb restoration of a van in SR Livery.



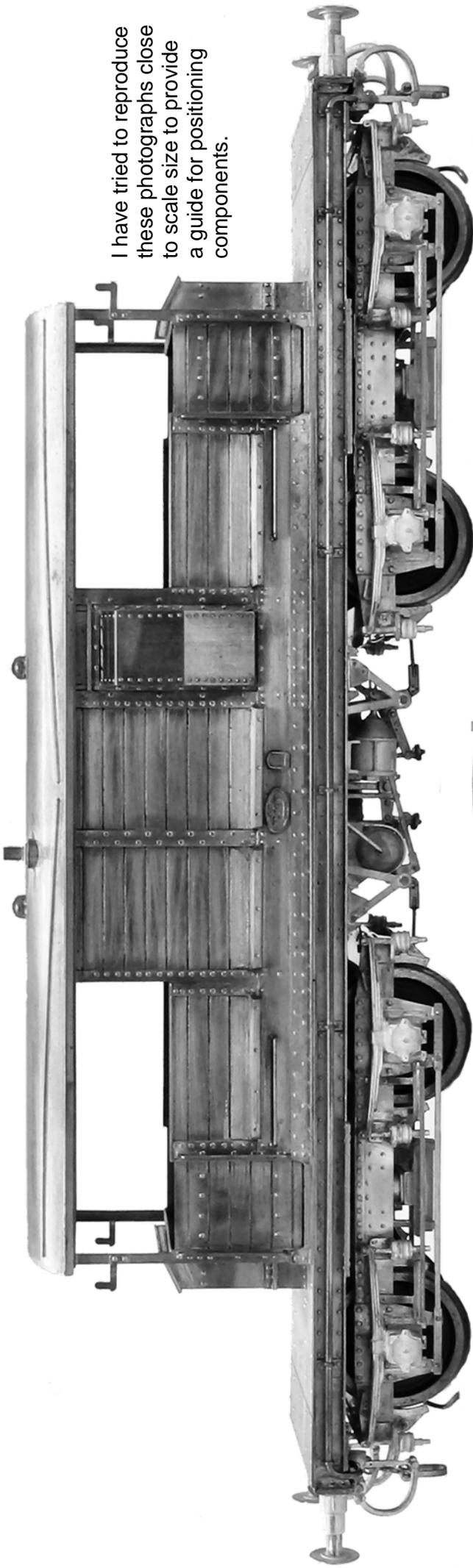
British Railways
Lettering

NOT IN
COMMON USE

S56282

25-8

Southern Railway Queen Mary Brake Van



I have tried to reproduce these photographs close to scale size to provide a guide for positioning components.

Southern Railway Livery

Dark brown body, Black solebars and running gear, White roof (dirty grey in service) with black chimney, White lettering. The headstocks and buffer bodies, veranda ends and sandboxes and cabin ends above waist level were painted red (buffer beam vermilion) to provide a warning to following trains.

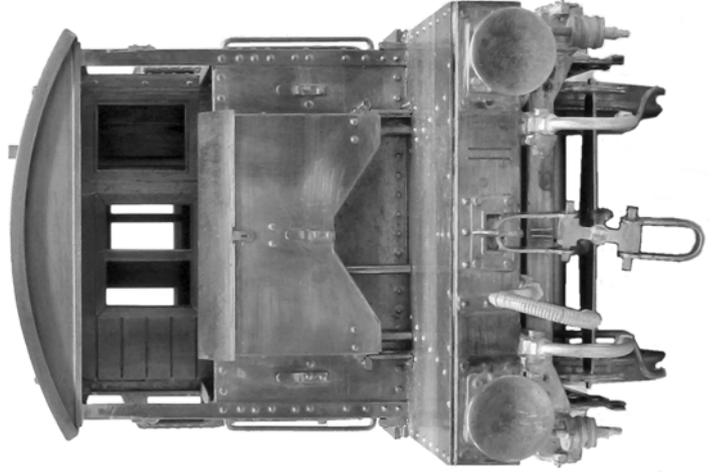
Transfers for lettering are available from the Historical Model Railway Society (HMRS) www.hmrs.org.uk for order form or send to:- Voluntary sales officer, 8 Gilpin Green, Harpenden, Herts, AL5 5NR, SAE for list & order form. You will require sheet 13, SR goods vehicle insignia.

British Railways Revenue Traffic Livery

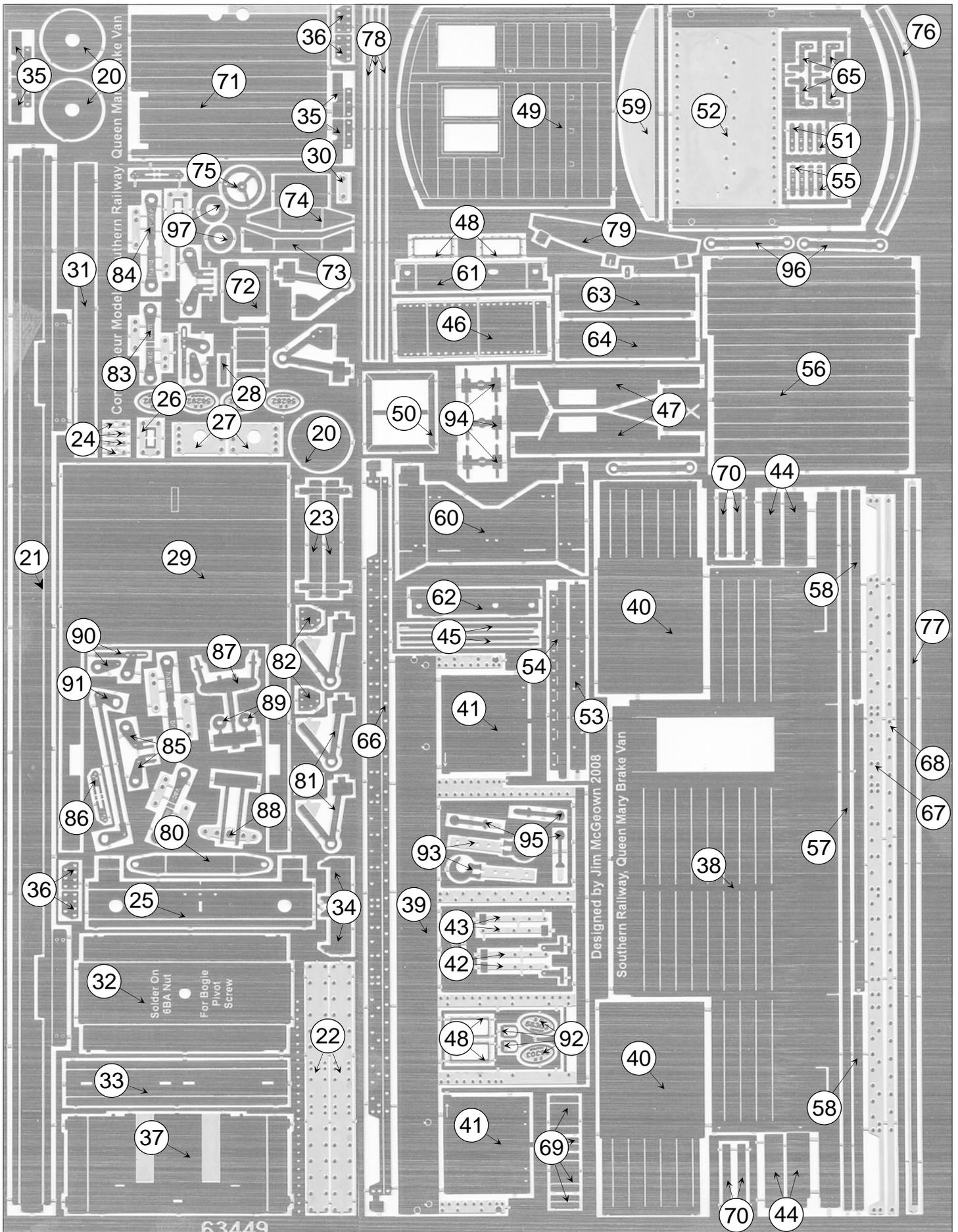
Bauxite bodywork and sandboxes, Black solebars, end platforms and running gear, Dark grey roof, White lettering.

When the vans entered service on special duties they carried a wide variety of attractive liveries particularly post sectorisation and during privatisation. It is assumed that modellers of this period will have their own reference materials or be happy to do research via the internet etc.

Transfers for BR lettering are available from the Historical Model Railway Society. You will require sheet 25, BR revenue wagons.



Queen Mary Brake Van Etched Parts Identification



All parts are repeated twice to provide the kits full set of etched components.
Extras are provided for a number of the smaller components.

Casting Identification and Parts Check List



When I make a set of dedicated moulds for producing a set of castings for a kit I try to take a bakers dozen approach and repeat some castings to cover for failures. So hopefully you will have some spare castings.

Wire and Rod

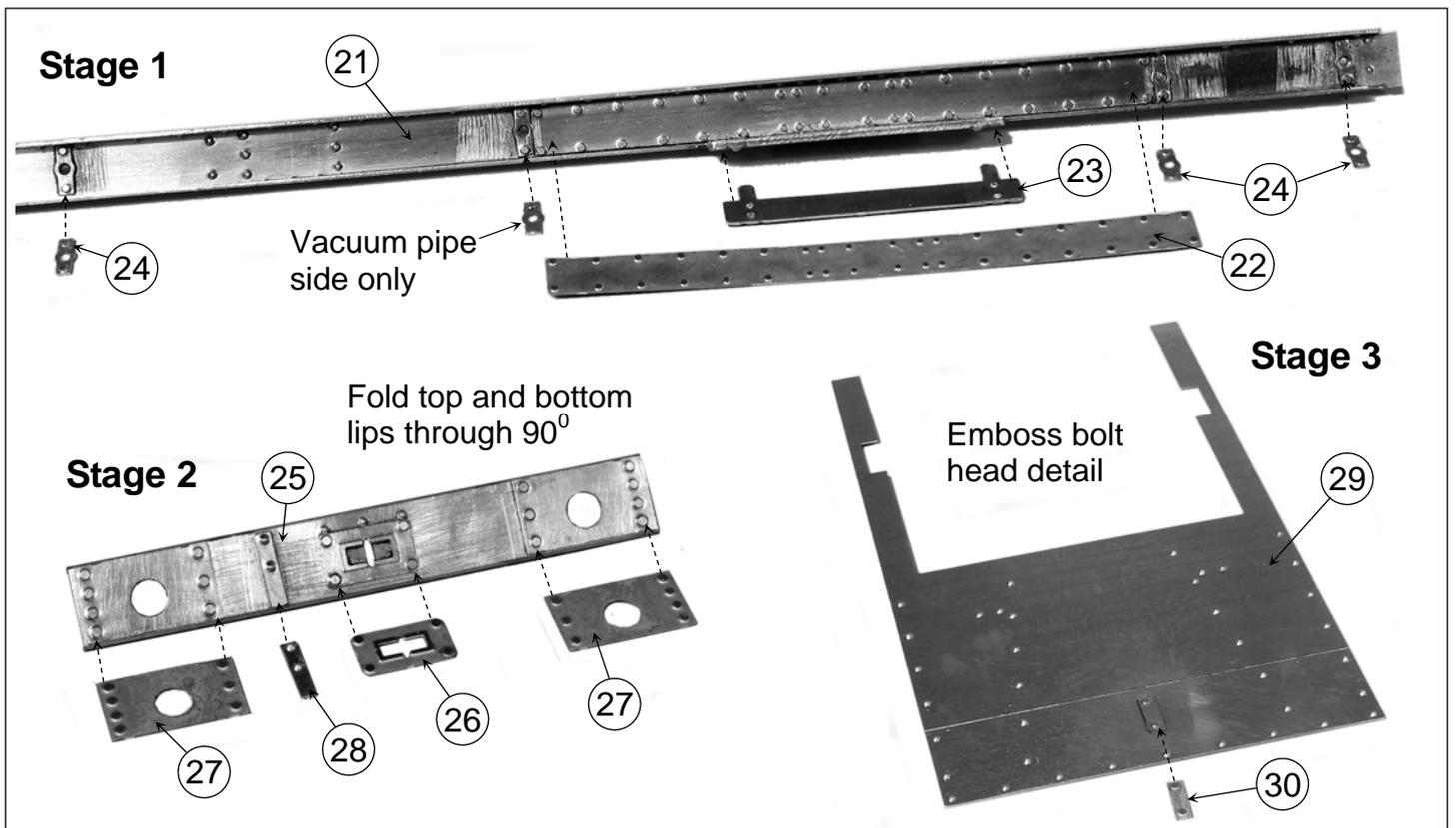
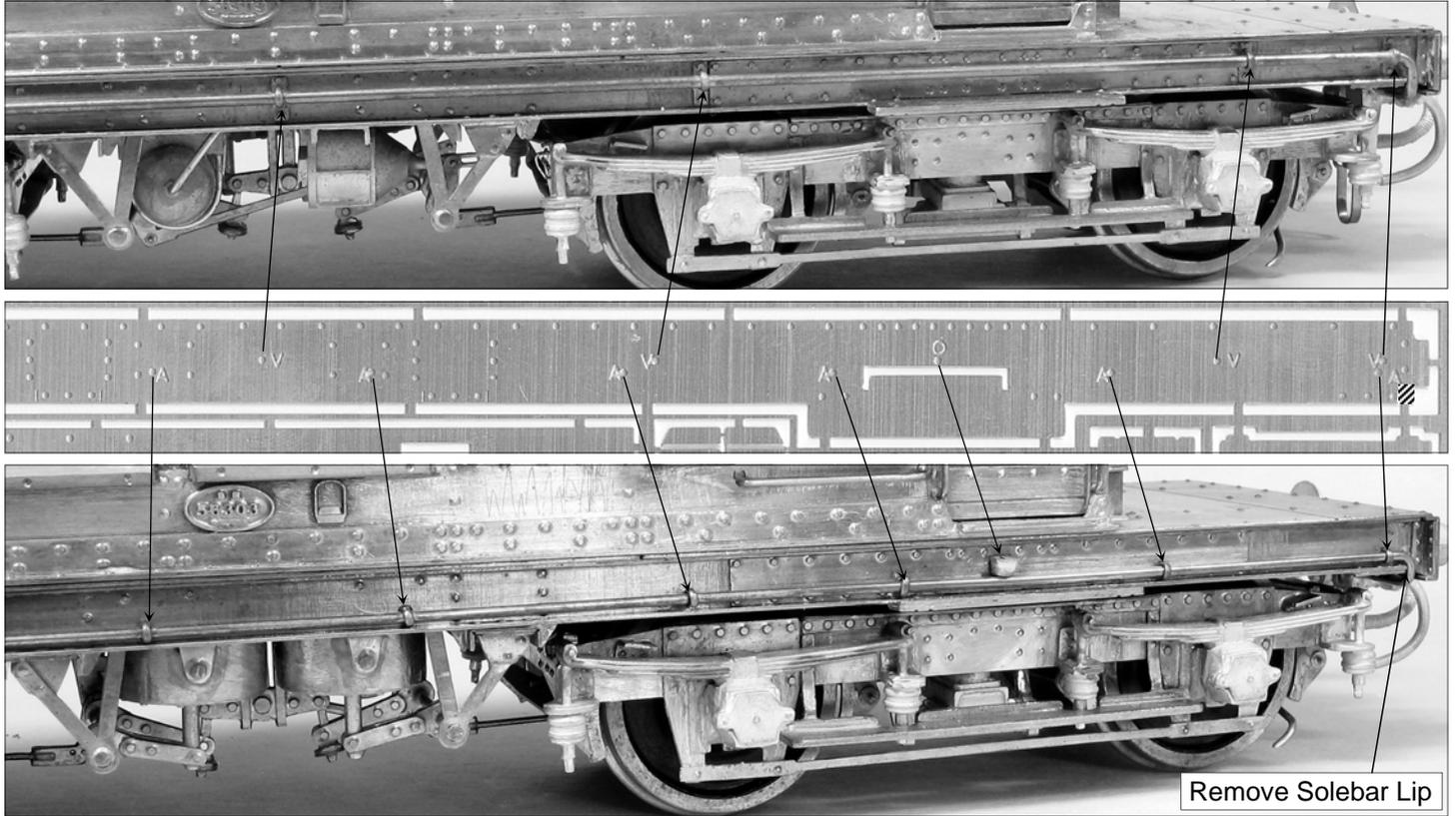
- 1 X 20" length of 0.018" fine spring wire for bogie sprung wheel suspension.
- 1 X 10" length 0.45mm hard brass wire. 4 X 10" length 0.7mm brass wire for handrails etc.
- 2 X 10" length 0.9mm brass wire for sandpipes etc.
- 1 X 6" 22swg soft tinned copper wire for air reservoir hoops & pipework.
- 1 X 6" spring steel wire for buffer springing (may be tarnished black).
- 1 X 12" length 1.2mm copper rod for air pipe.
- 2 X 12" length 1.4mm copper rod for vacuum pipe and cross shafts etc.

Before construction commences you must decide if you wish to build a vacuum brake only vehicle or a duel air and vacuum braked van. The pipes that run along the solebars are represented by different thickness copper rod supported in the closed up heads of split pins. Holes to take the split pin legs require drilling at marked positions on the rear of the solebar.

Positions marked with a V are for the vacuum pipe that was fitted to all vehicles. The bottom solebar lip is also cut back to allow the pipe to run under the vehicle.

Positions marked with a A are for the smaller diameter air pipe that was fitted to the opposite solebar on duel braked vans (remember to redrill holes after fitting the detail overlays parts 22). There was also two oil boxes for the bogie pivots on this side and their position is marked with a O.

Emboss bolt head detail and then fold solebar lips through 90°. The bolt head detail on the solebar faces is definitely required but there is bolt head detail on the lips and whether this is worth the effort is probably dependent on how easy you find folding parts without flattening embossed detail.



Stage 4

25

29

Fold slightly and locate into etched rebate.

Buffer beam projects about 1mm beyond plate (part 29)

Stage 5

31

Locate over positioning tabs

Stage 6

32

20

33

34

34

Note etched positioning marks

34

33

32

35

Fold sides through 90°

34

Trim 36 to achieve a snug fit into corner

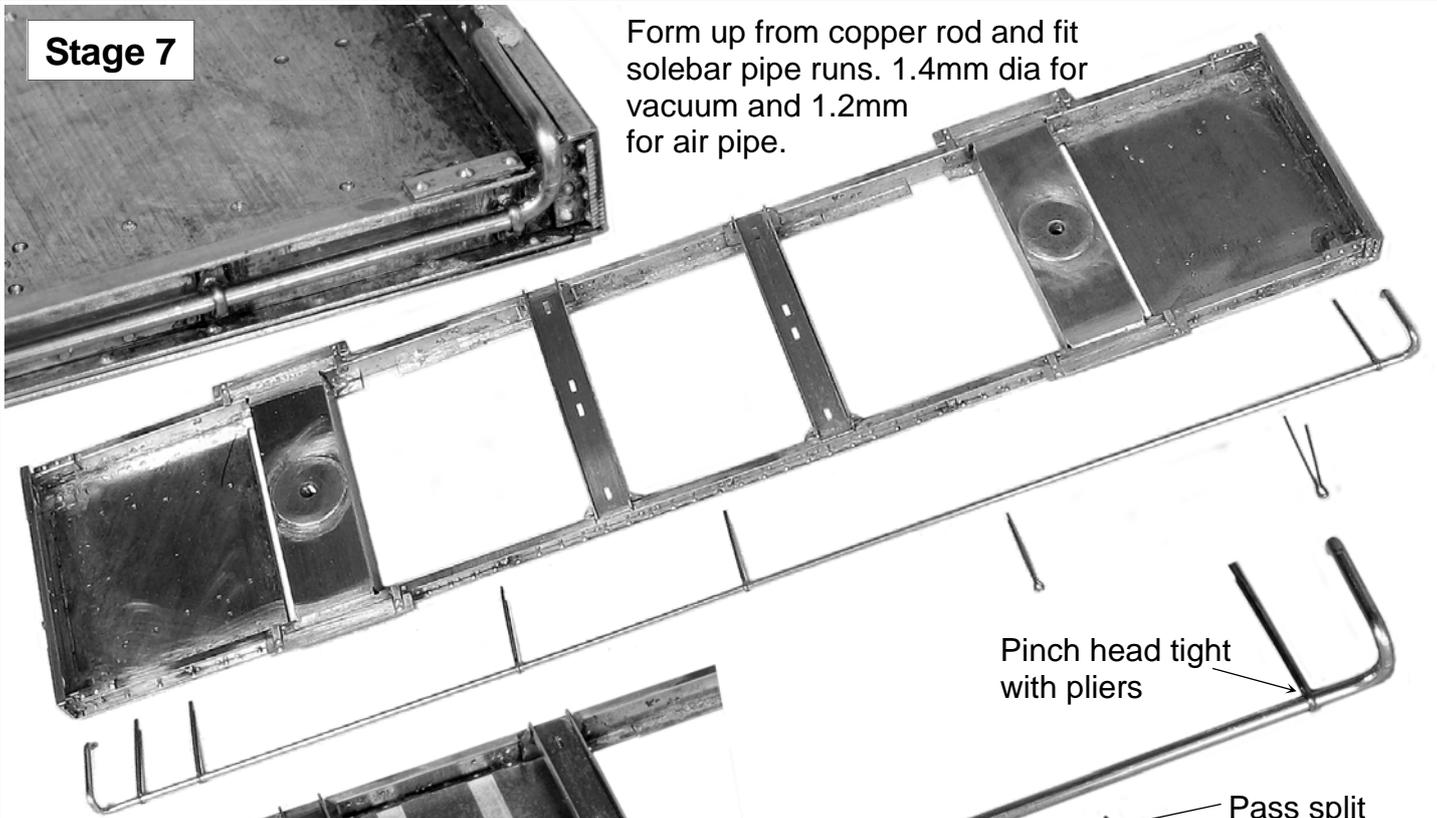
36

35

36

Stage 7

Form up from copper rod and fit solebar pipe runs. 1.4mm dia for vacuum and 1.2mm for air pipe.



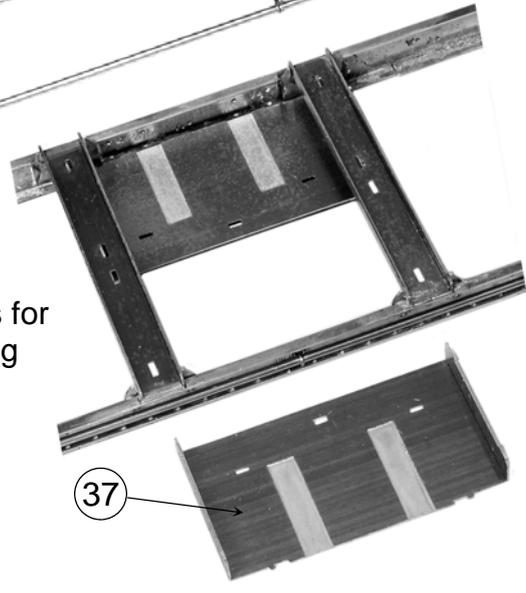
Pinch head tight with pliers

Pass split pin over rod

Stage 8

Support plates for brake operating cylinders and linkages

37



I find it easier to work on parts on a flat surface. So I prefer to fit parts to the cabin sides and ends before constructing them into the cabin.

Stage 9

38

Fold top & bottom through 90°

Stage 10

43

42

41

40

39

Emboss bolt head detail

Top edge marked ↑

Fit window frames after ductet is fitted into side

Keep slots clear

Stage 11

Stage 12

48

47

46

47

46

45

Two sets of part 48 are provided, use the set that has etched the best

Assemble ductet then file sides and cut out to achieve a snug fit. Fit and solder ductet into place from rear.

Stage 13

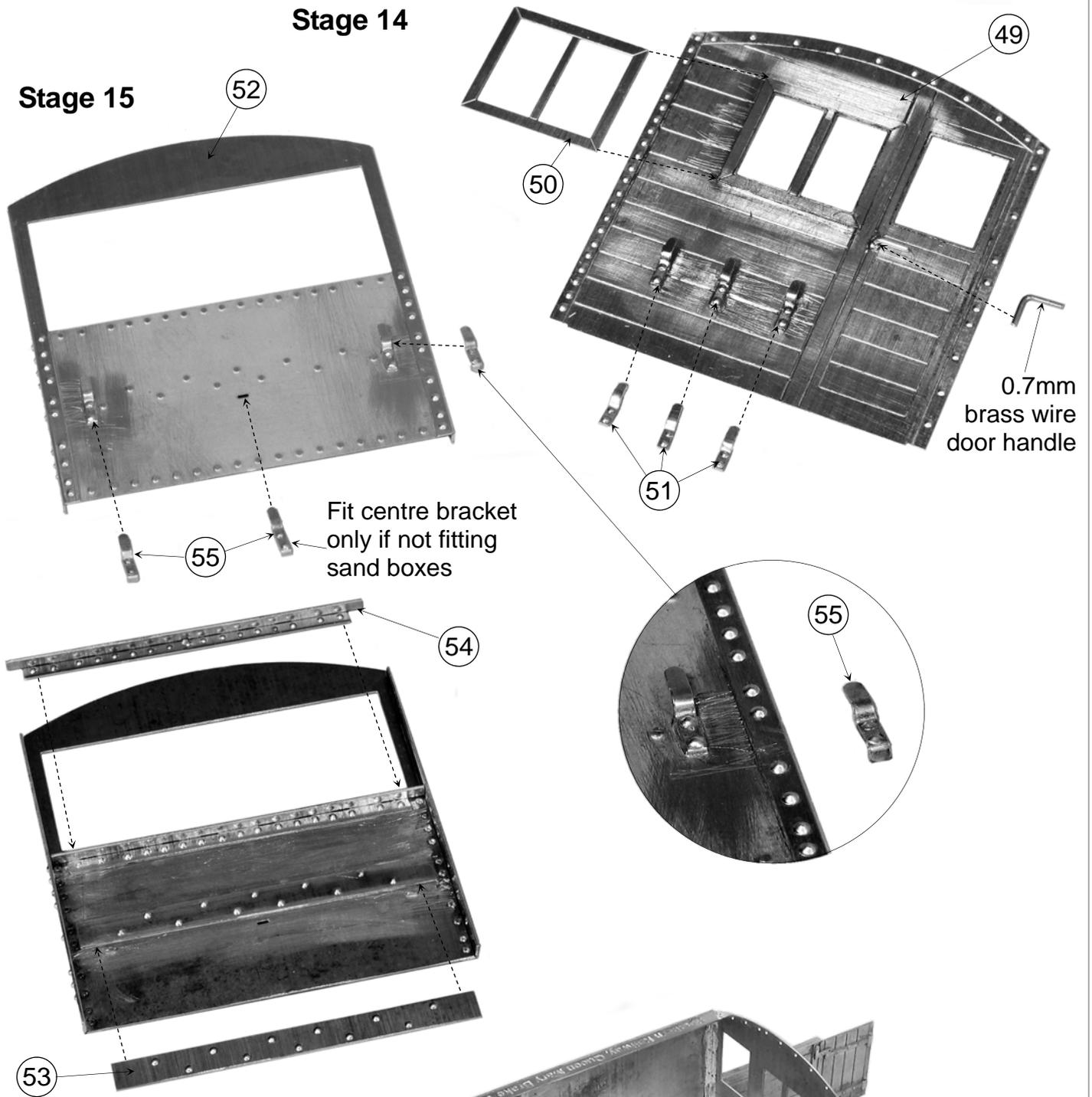
Drill through holes for handrails.

Handrails are formed from 0.7mm brass wire.

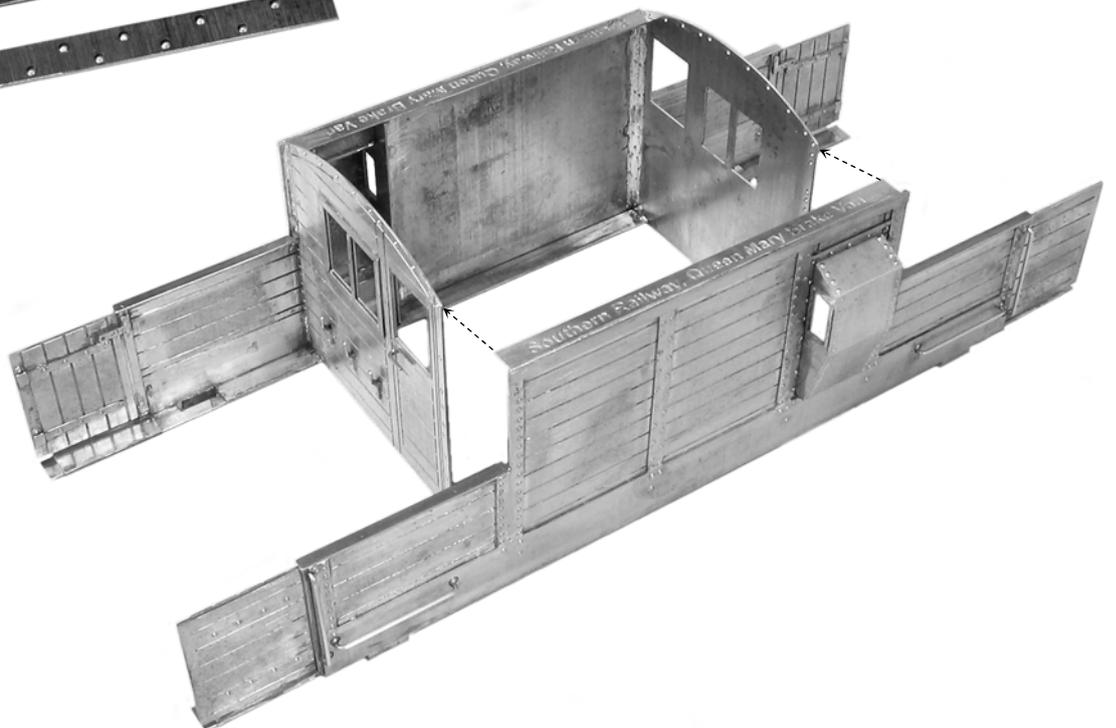
After fitting handrails trim & dress excess wire flush at rear

Stage 14

Stage 15

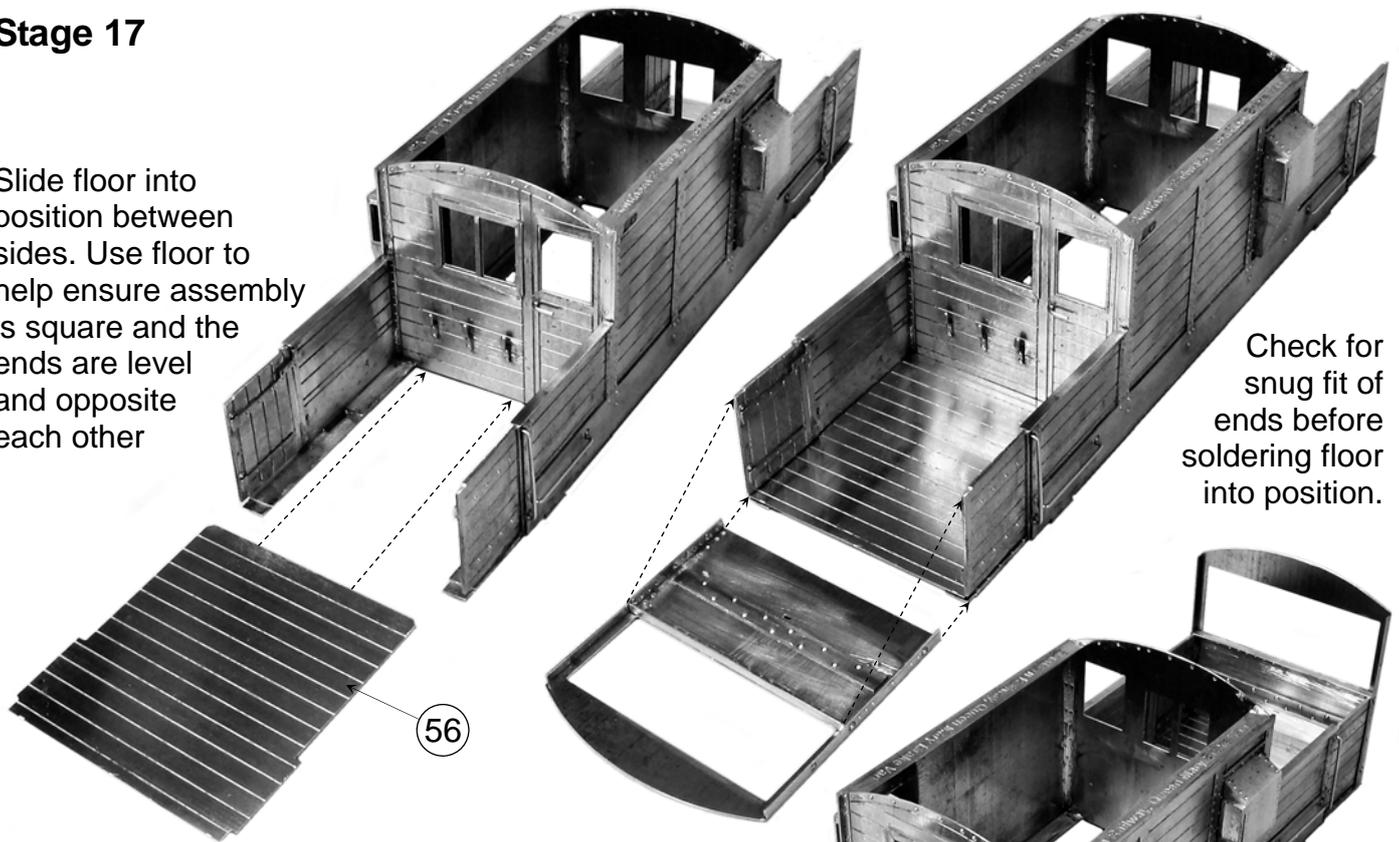


Stage 16



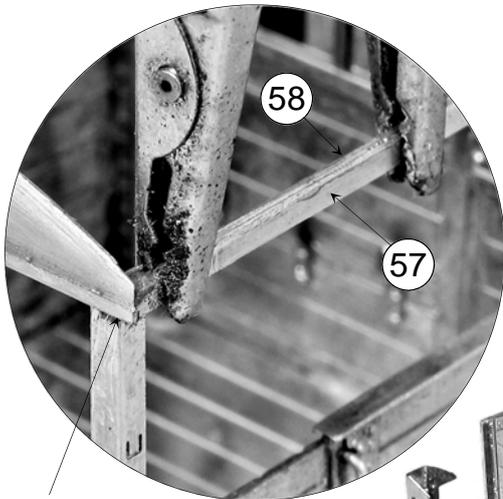
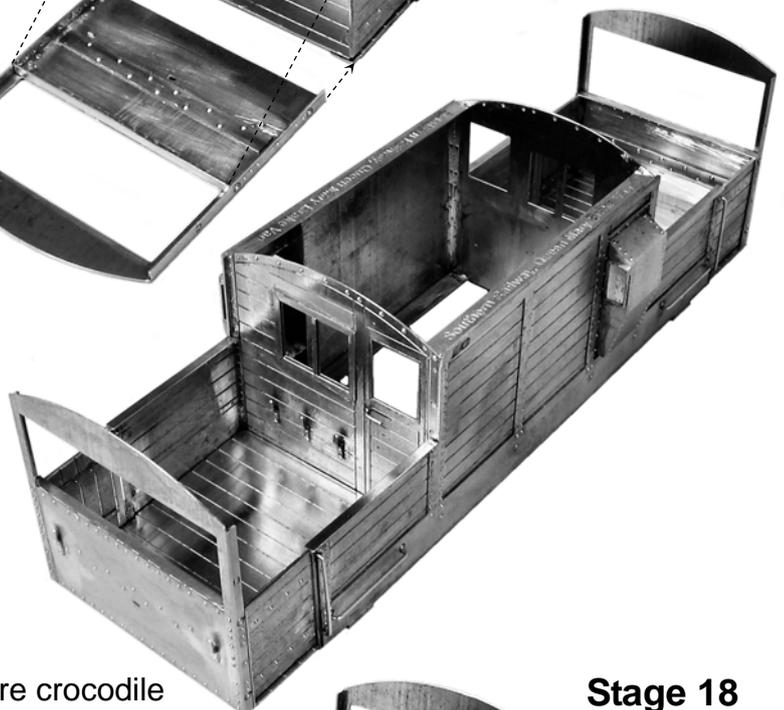
Stage 17

Slide floor into position between sides. Use floor to help ensure assembly is square and the ends are level and opposite each other



Check for snug fit of ends before soldering floor into position.

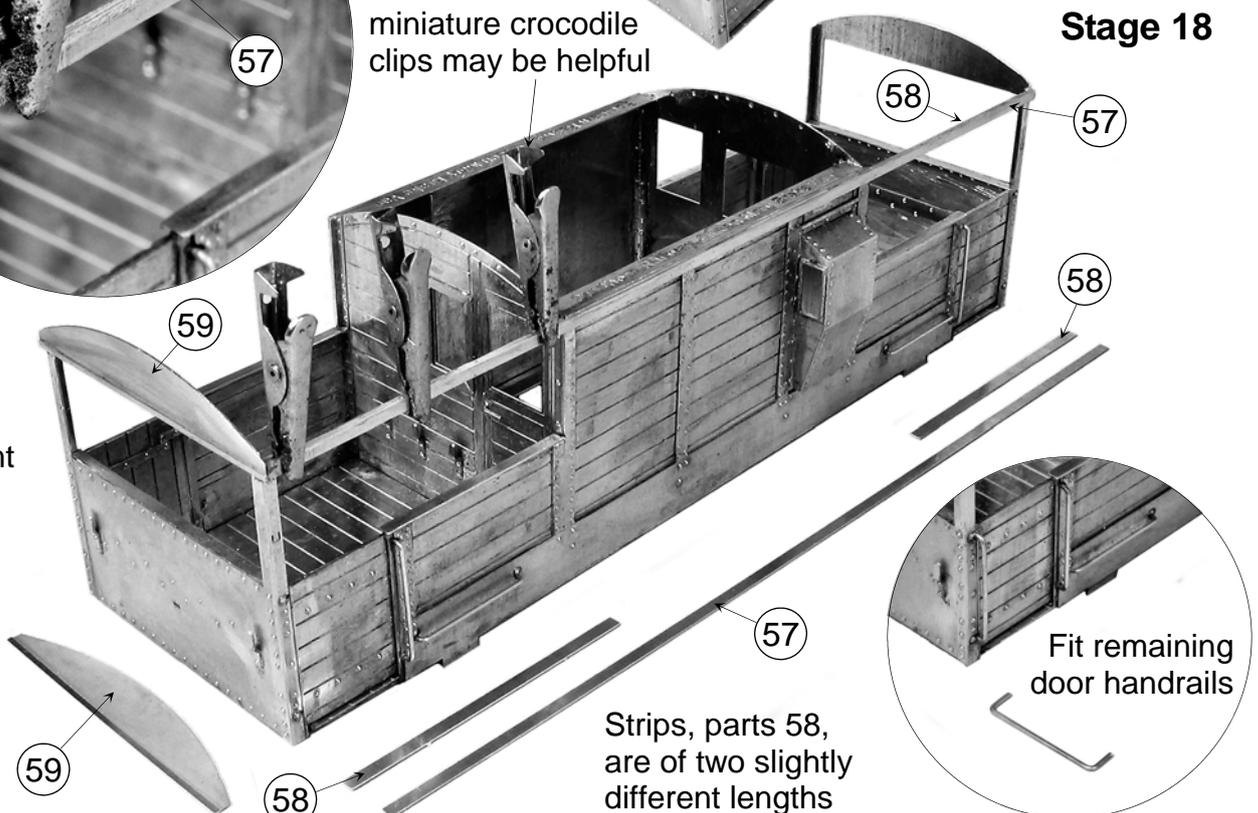
Fit strip, part 57, to body side first. Then fit part 58 to rear. then solder to outside face of corner post angle



File back to form flush and sharp corner joint

miniature crocodile clips may be helpful

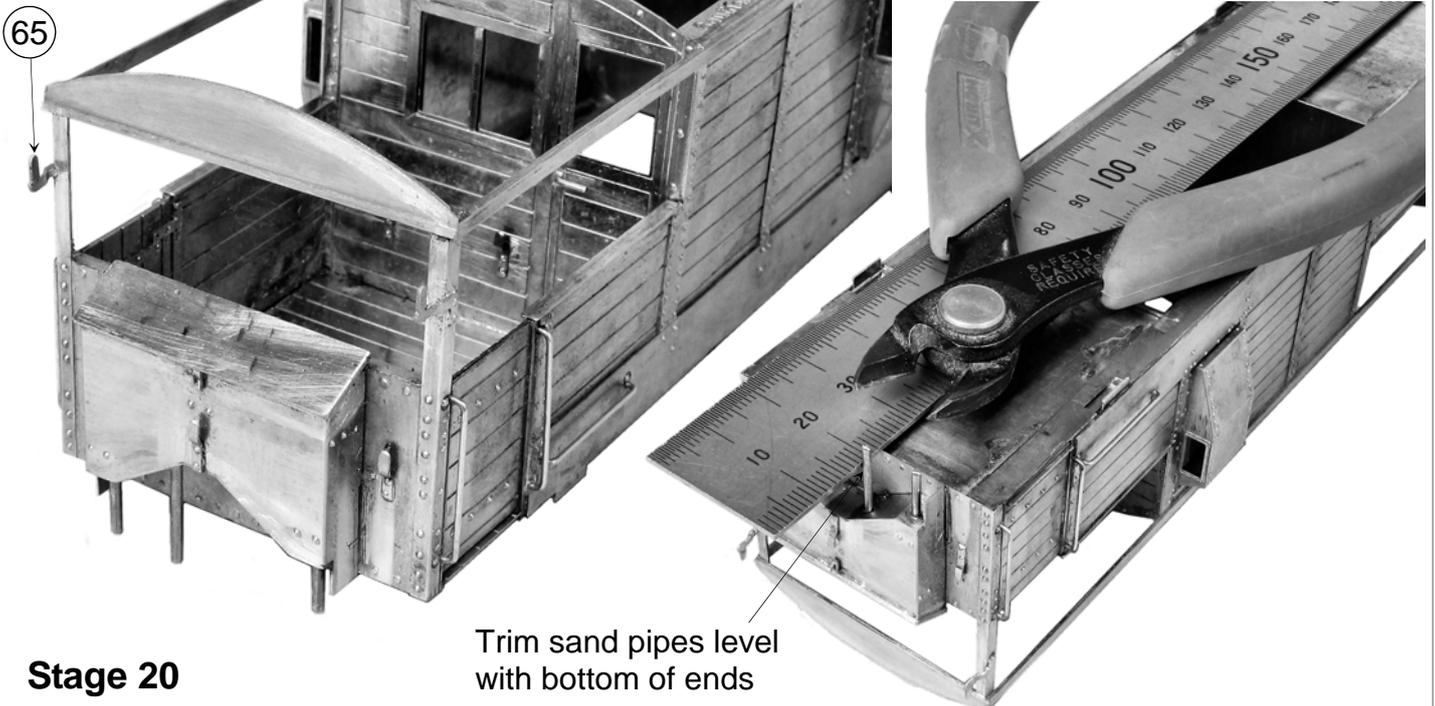
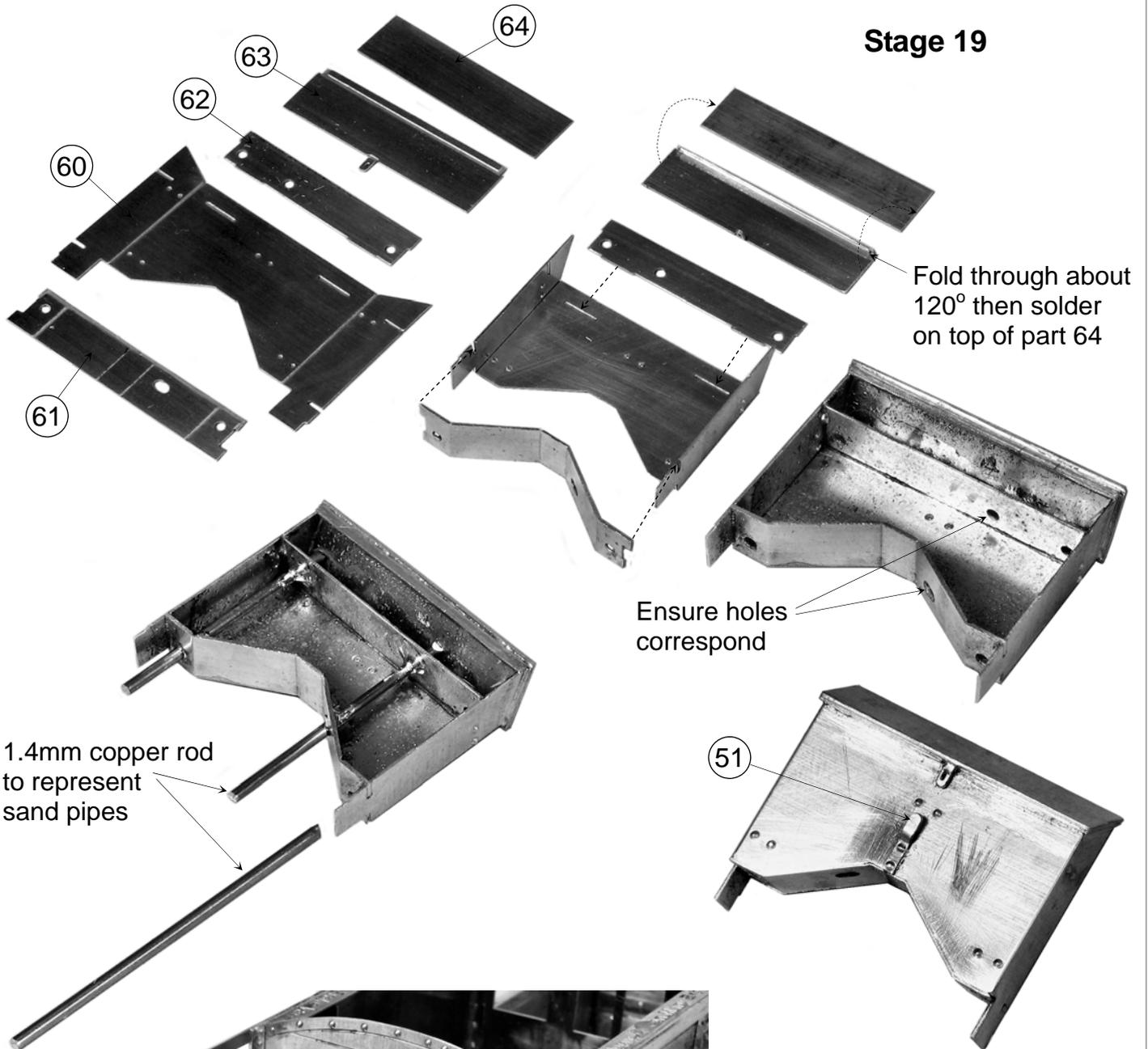
Stage 18



Strips, parts 58, are of two slightly different lengths

Fit remaining door handrails

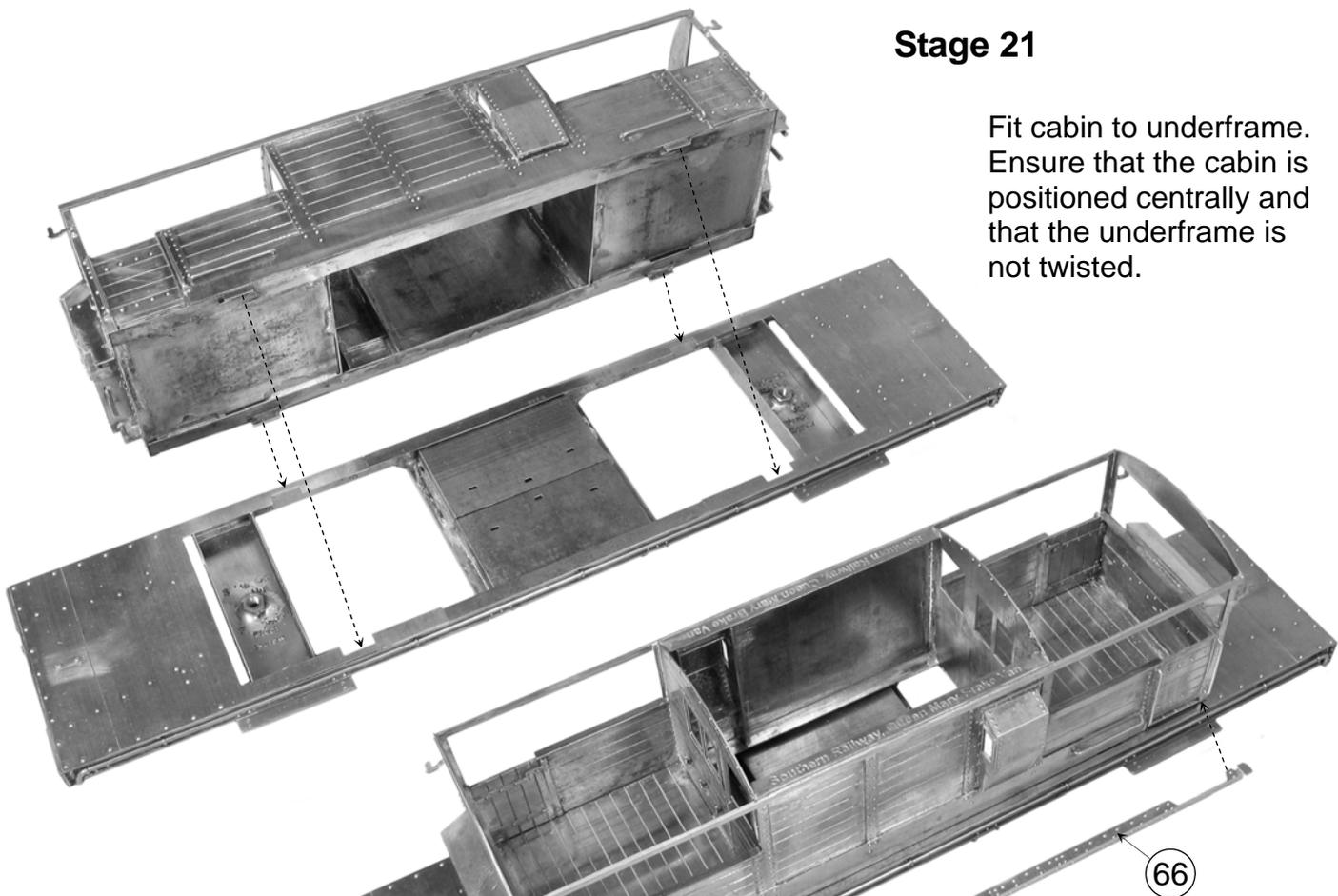
Stage 19



Stage 20

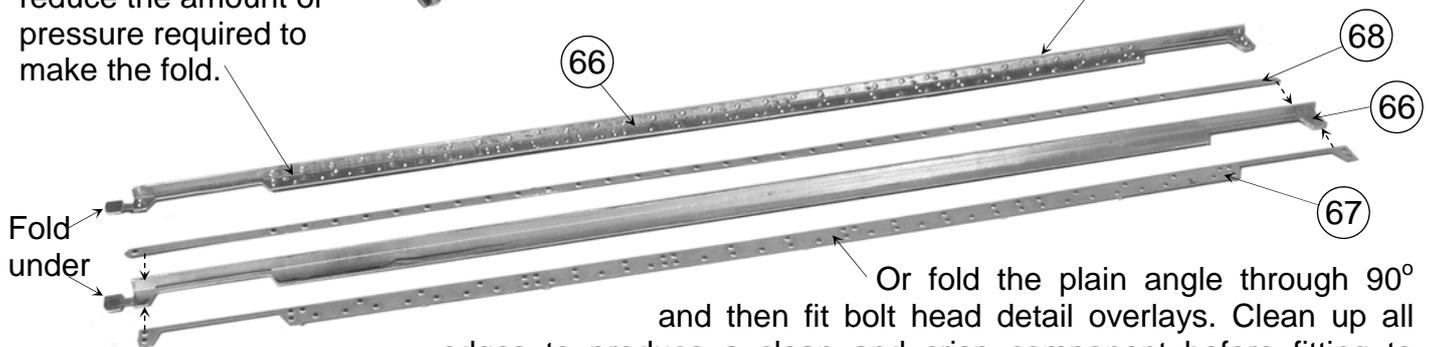
Stage 21

Fit cabin to underframe. Ensure that the cabin is positioned centrally and that the underframe is not twisted.



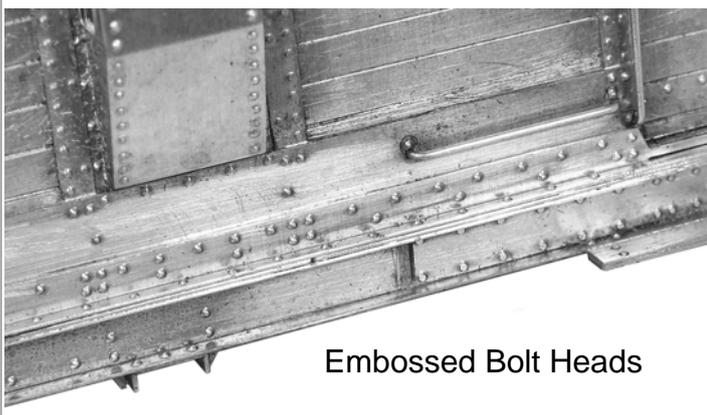
The fold line is on the reverse side of the part. I recommend deepening with a triangular file to reduce the amount of pressure required to make the fold.

There are two options for the body to underframe angle, parts 66. I have provided half etch holes so that you can emboss the bolt head detail and then fold through 90°.

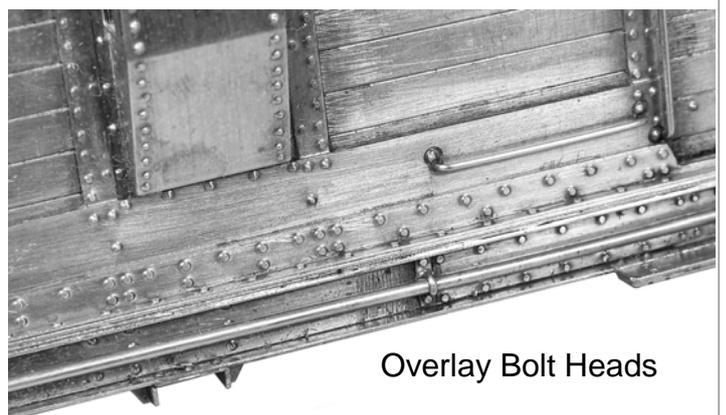


Fold under

Or fold the plain angle through 90° and then fit bolt head detail overlays. Clean up all edges to produce a clean and crisp component before fitting to cabin side and underframe. Although it requires more work I think the etched overlays give a slightly better result but the choice is yours.

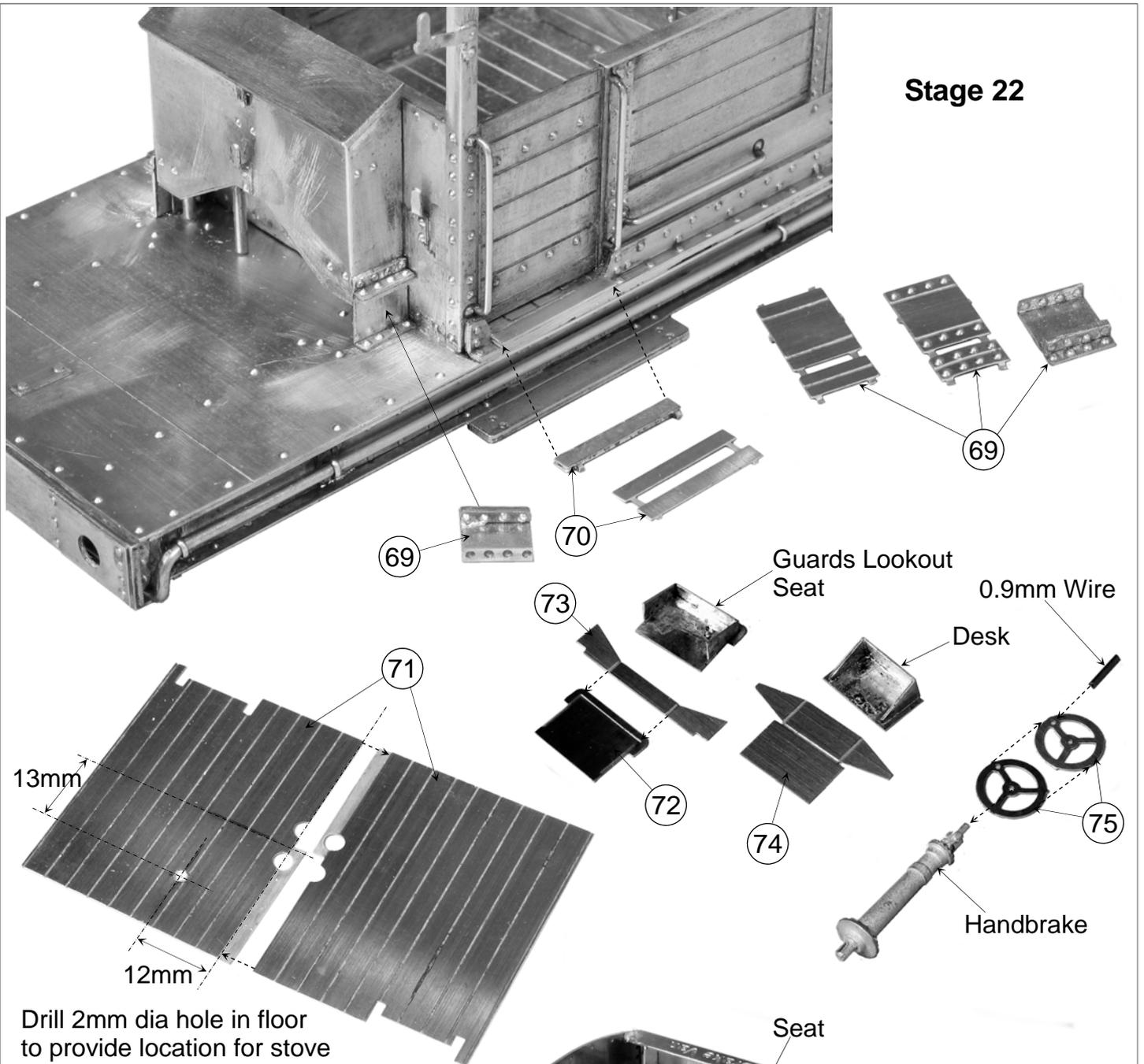


Embossed Bolt Heads



Overlay Bolt Heads

Stage 22



Drill 2mm dia hole in floor to provide location for stove

Stage 23

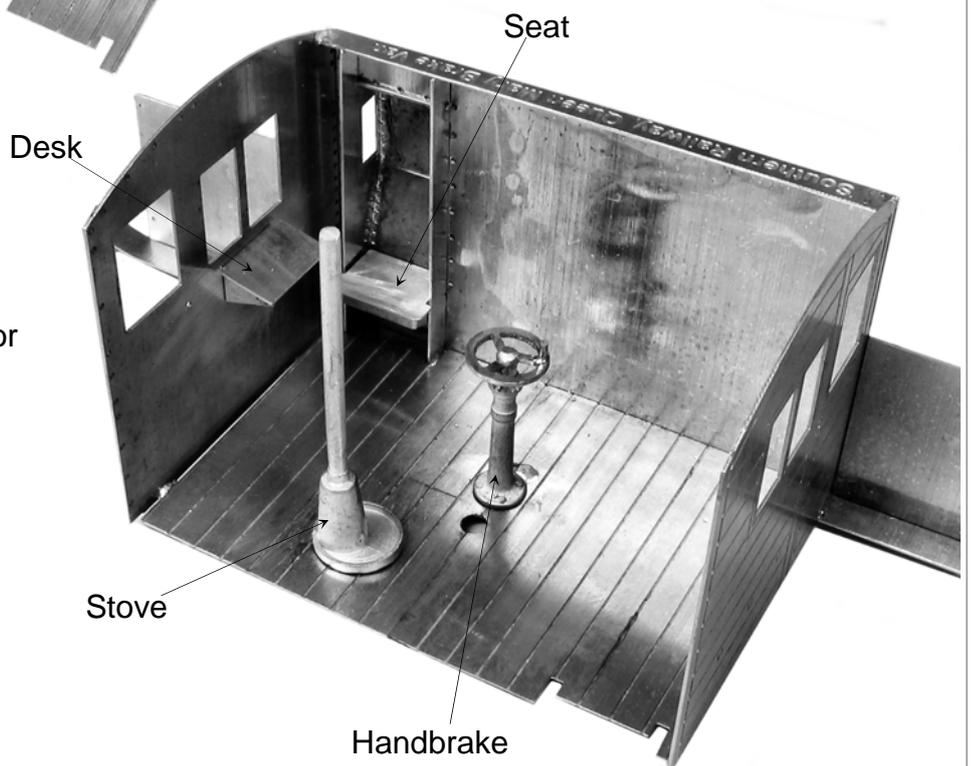


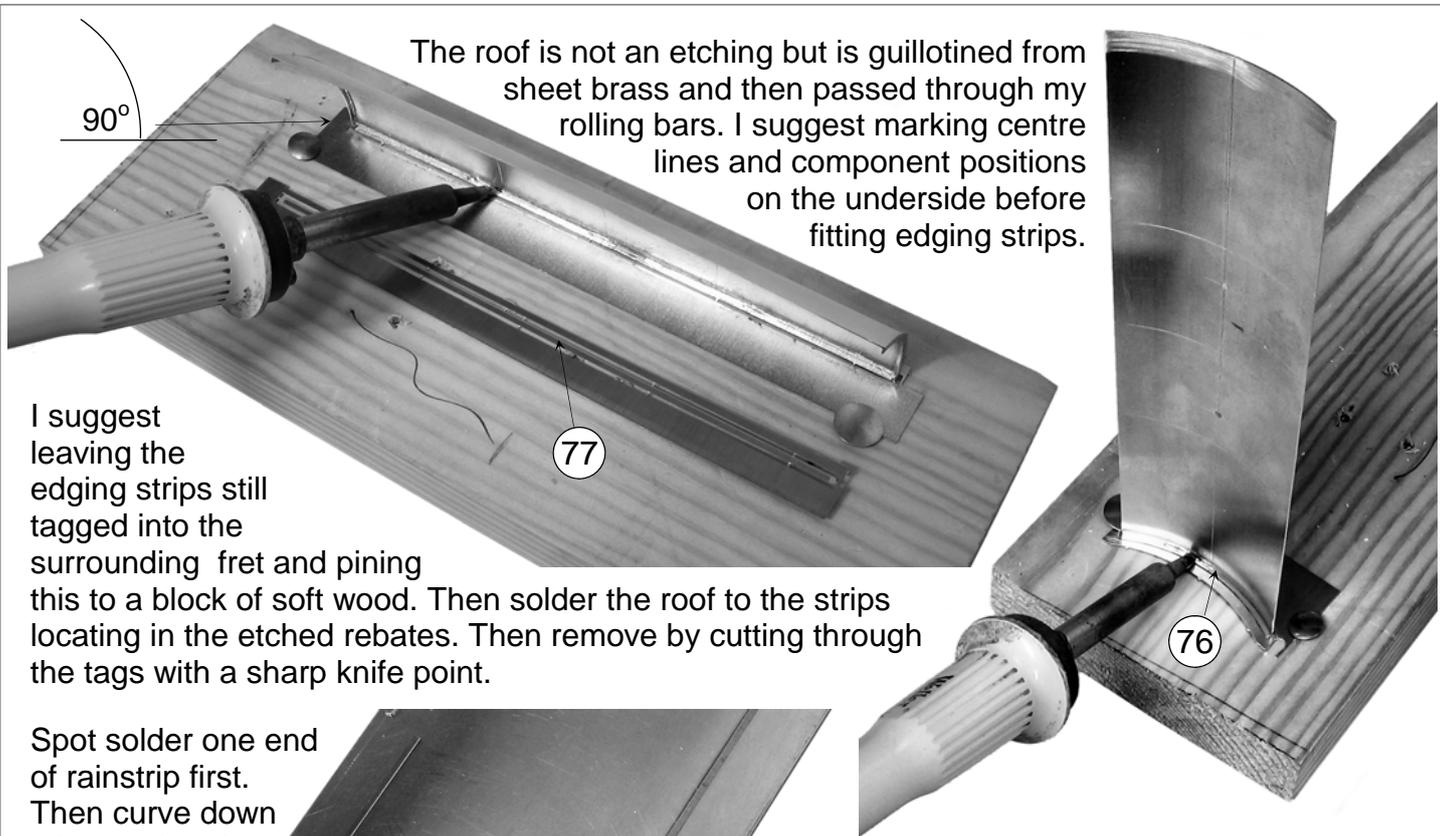
Stove

Mock up of cabin interior fittings



Handbrake Column



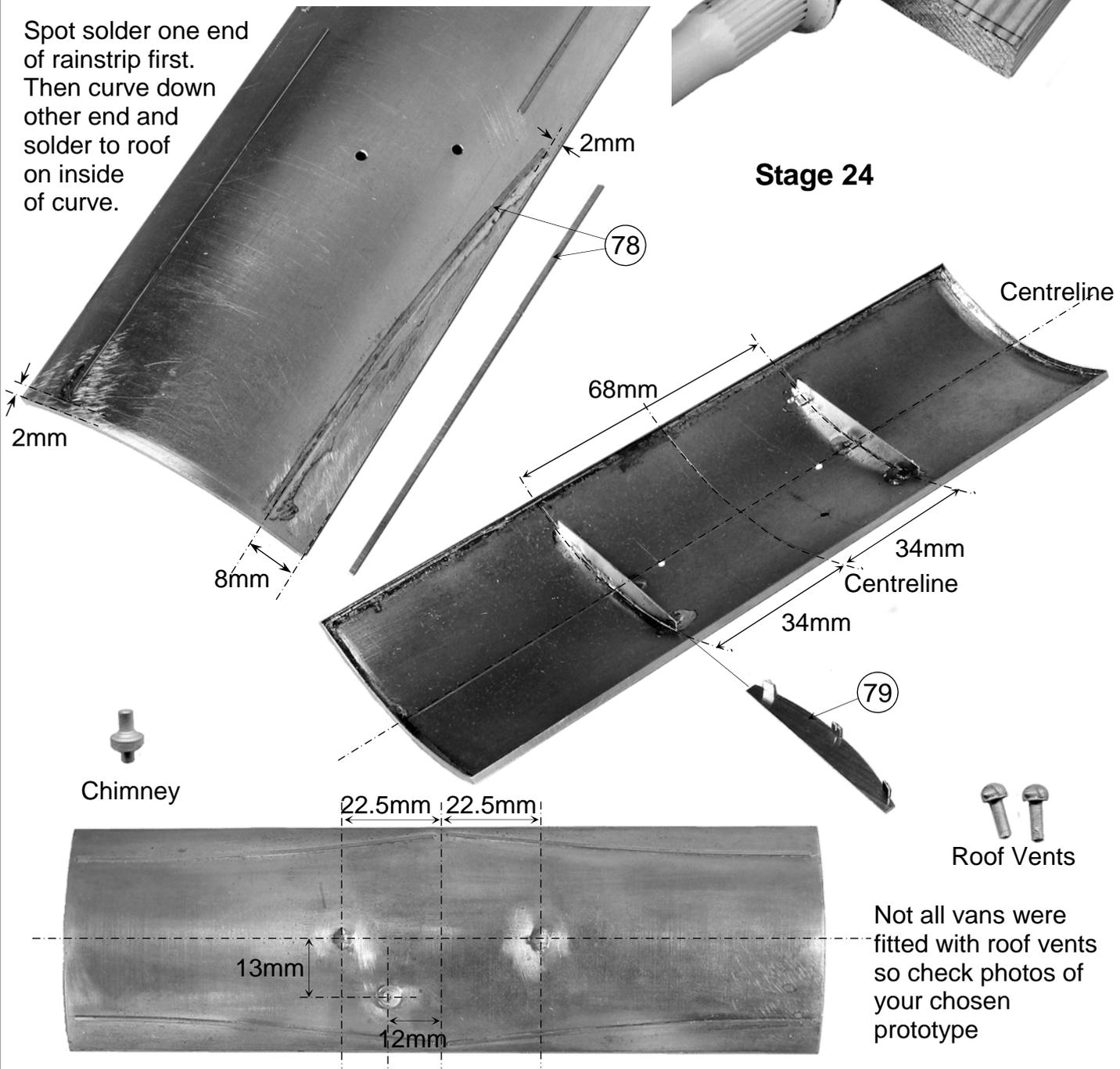


The roof is not an etching but is guillotined from sheet brass and then passed through my rolling bars. I suggest marking centre lines and component positions on the underside before fitting edging strips.

I suggest leaving the edging strips still tagged into the surrounding fret and pinning this to a block of soft wood. Then solder the roof to the strips locating in the etched rebates. Then remove by cutting through the tags with a sharp knife point.

Spot solder one end of rainstrip first. Then curve down other end and solder to roof on inside of curve.

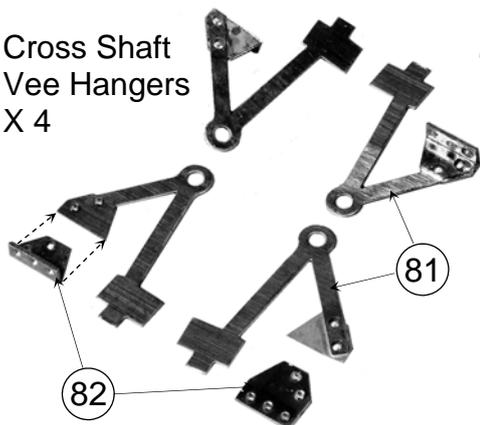
Stage 24



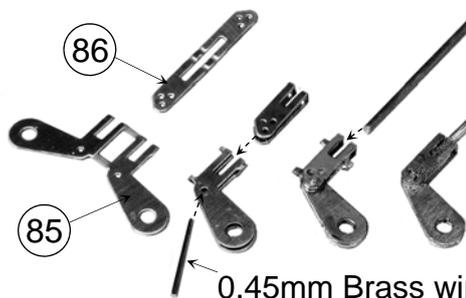
Stage 25

Assemble brake operating linkage components

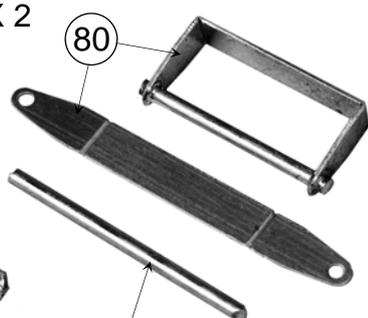
Cross Shaft
Vee Hangers
X 4



Bogie Pull Rod Crank X 2



Vacuum Cylinder Support
X 2



1.4mm Copper Rod

0.7mm Brass wire



83

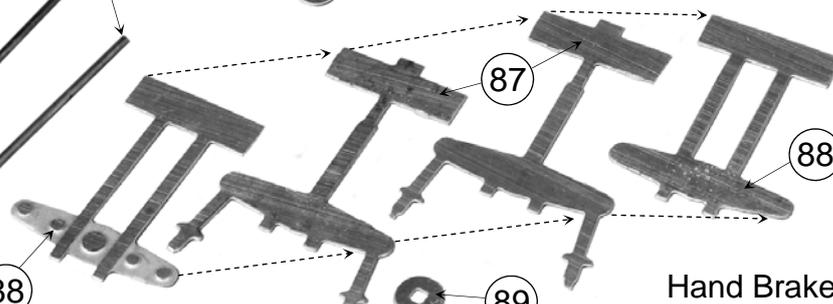
Vacuum Cylinder
Operating Crank X 2



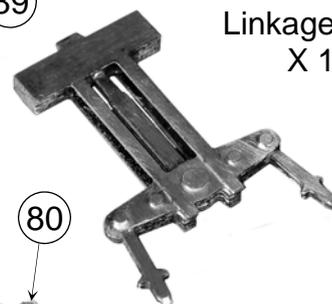
Hand Brake Operating Crank X 2



88



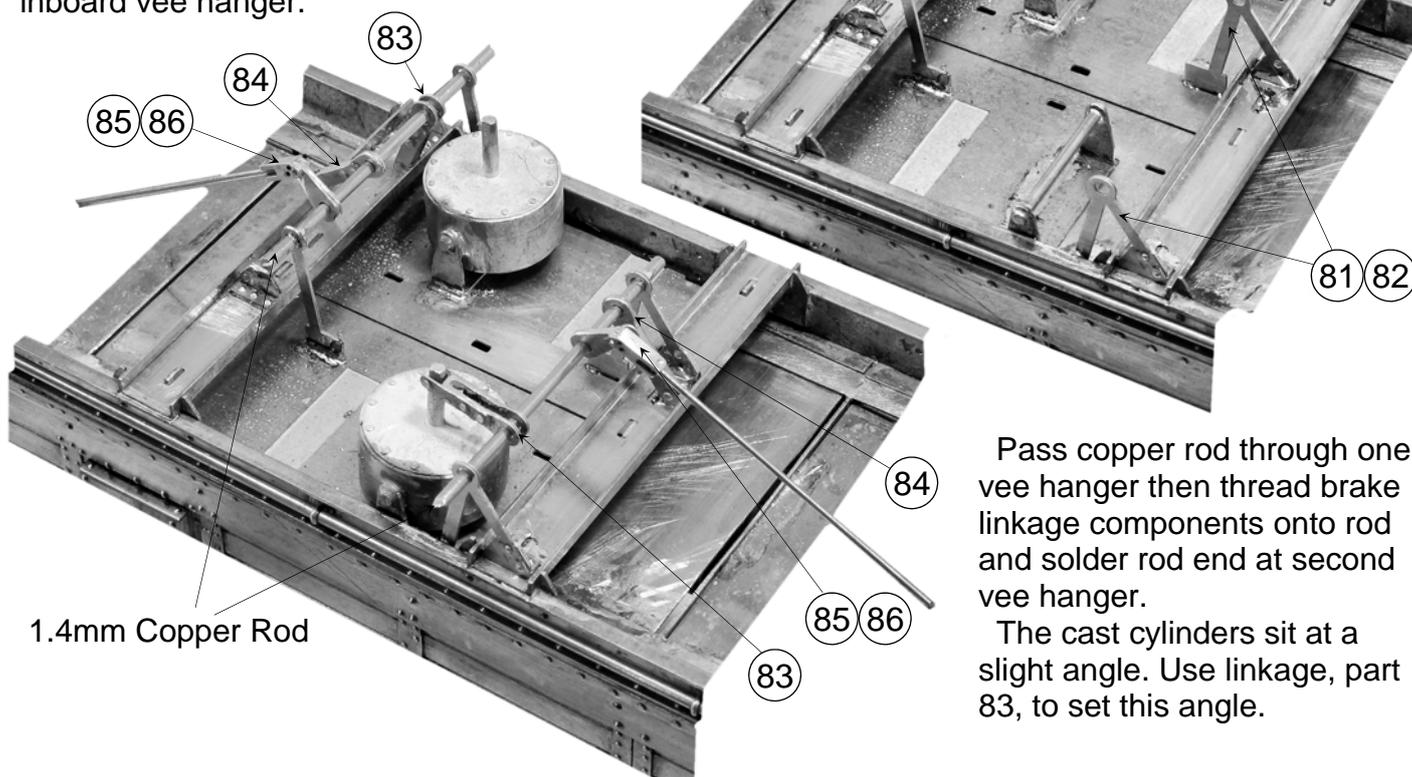
Hand Brake
Linkage
X 1



Stage 26

On vans fitted with vacuum brakes only the cylinders are located diagonally opposite each other across the underframe. The cross shafts extended about $\frac{5}{8}$ of the way across the underframe with the end supported by an inboard vee hanger.

I have duplicated many of these and other small components on the fret to cover the odd mishap and loss.

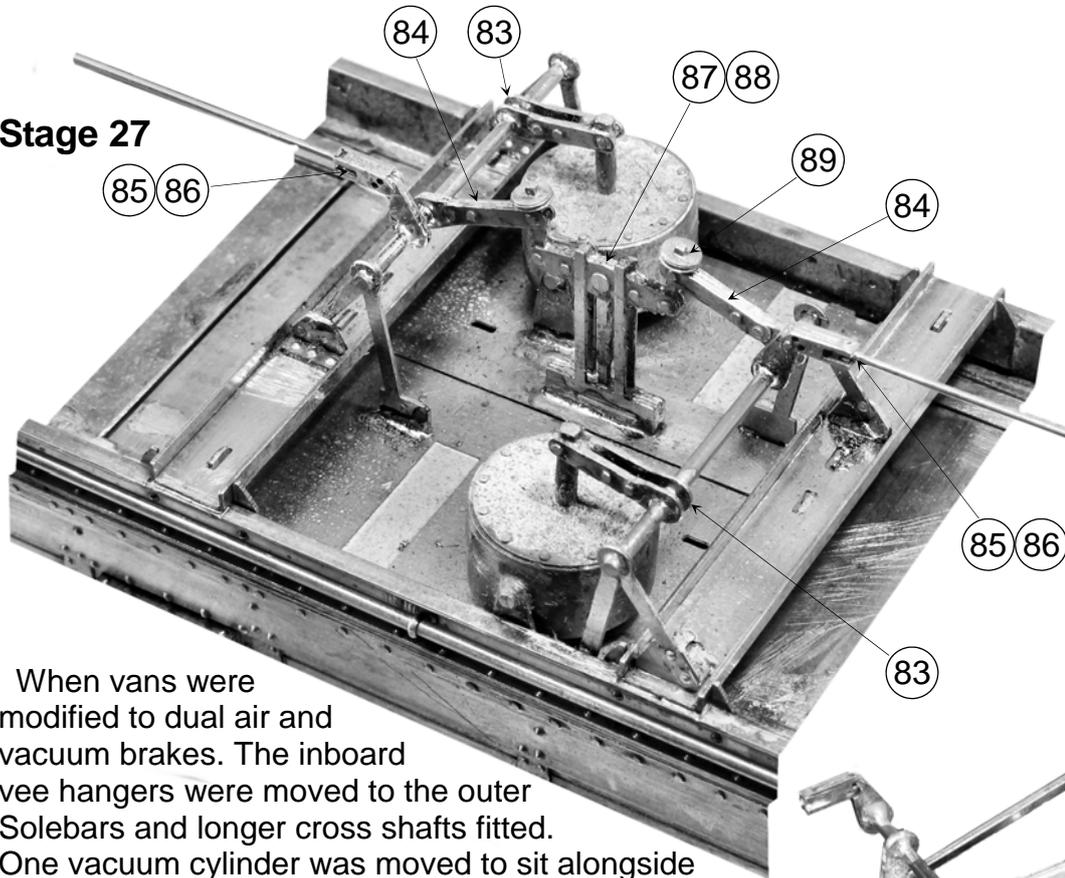


1.4mm Copper Rod

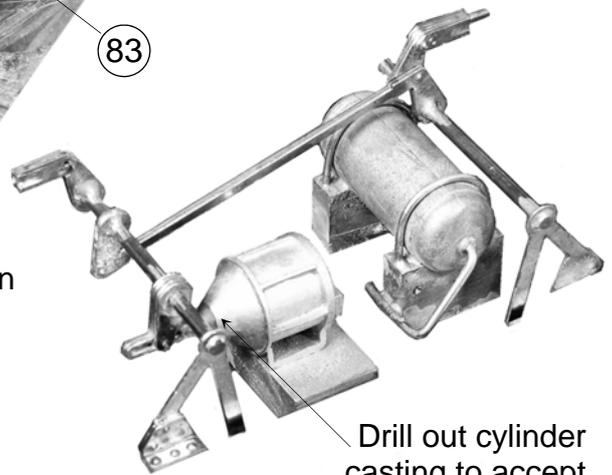
Pass copper rod through one vee hanger then thread brake linkage components onto rod and solder rod end at second vee hanger.

The cast cylinders sit at a slight angle. Use linkage, part 83, to set this angle.

Stage 27

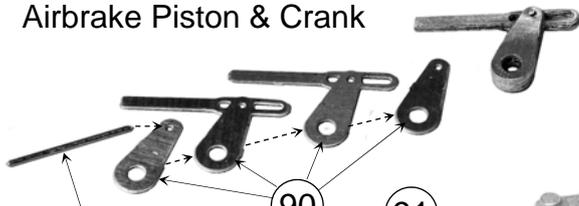


When vans were modified to dual air and vacuum brakes. The inboard vee hangers were moved to the outer Solebars and longer cross shafts fitted. One vacuum cylinder was moved to sit alongside The other (against the air piped solebar). Airbrake piston cylinder and a air reservoir cylinder were fitted into the vacated space (on the vacuum piped solebar side). Cranks and linkage were fitted so that the two cross shafts would rotate together when the air brake piston operated.

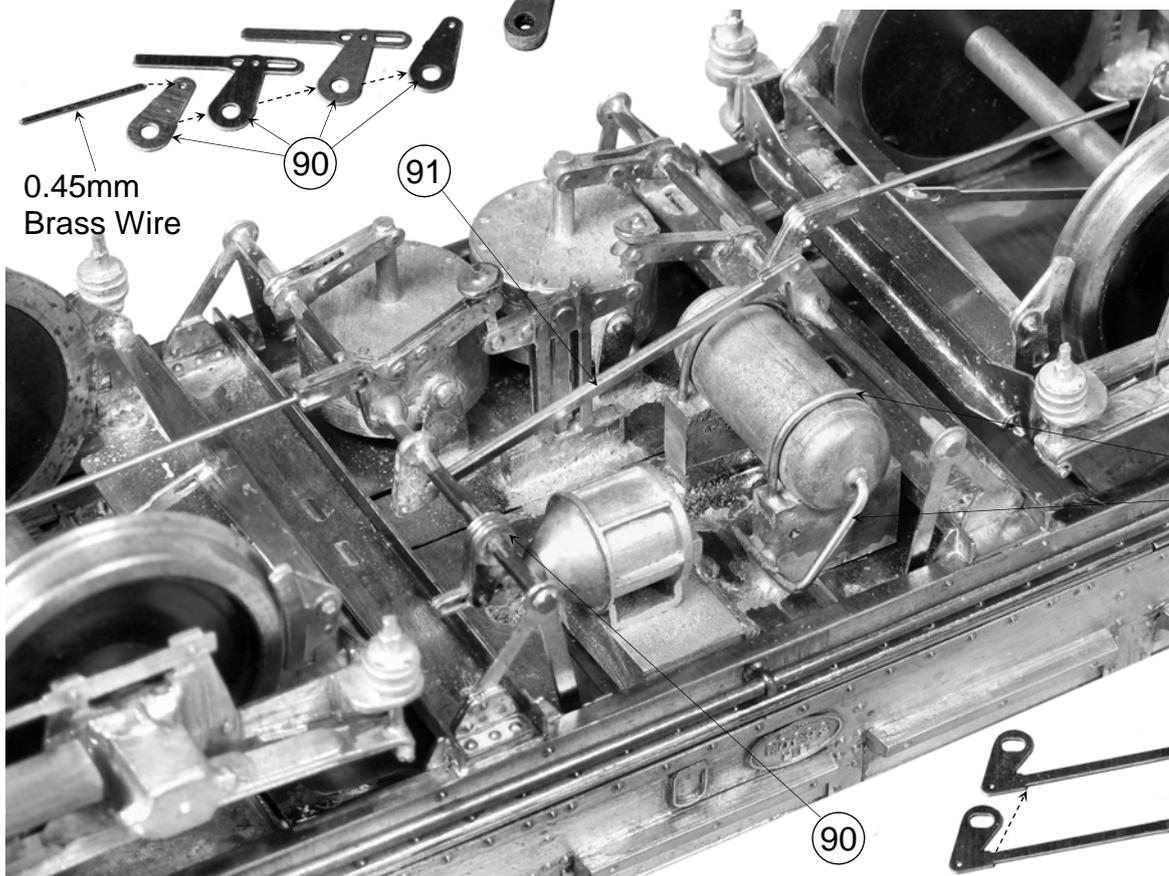


Drill out cylinder casting to accept etched piston crank

Airbrake Piston & Crank

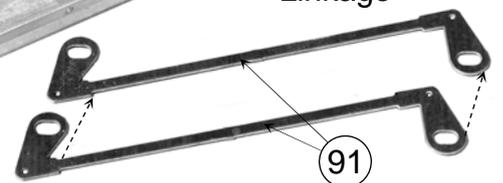


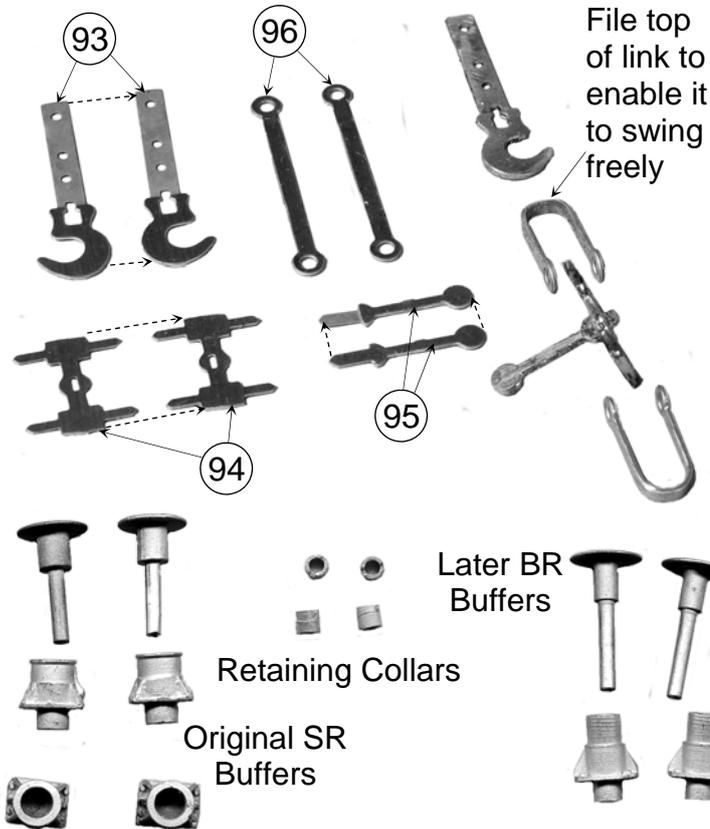
0.45mm Brass Wire



Soft wire retaining hoops and pipework

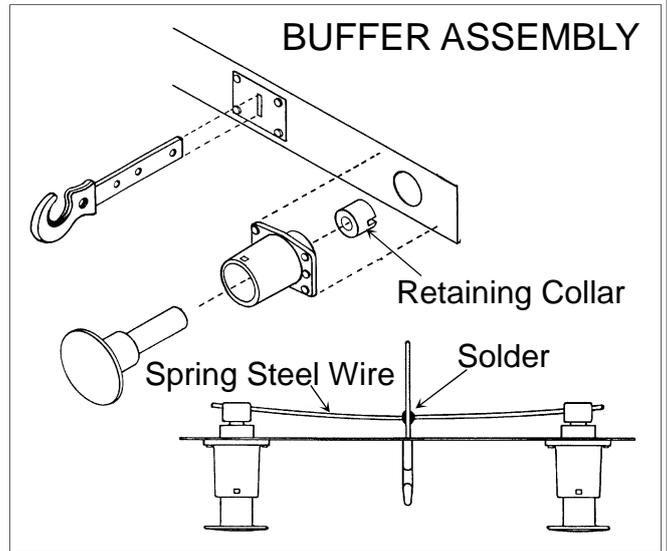
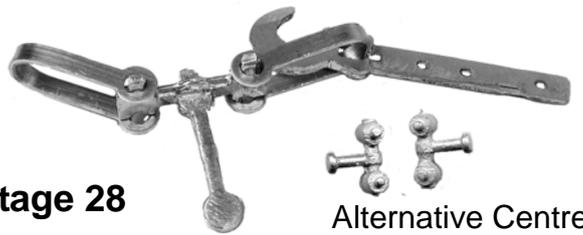
Cross Shaft Linkage



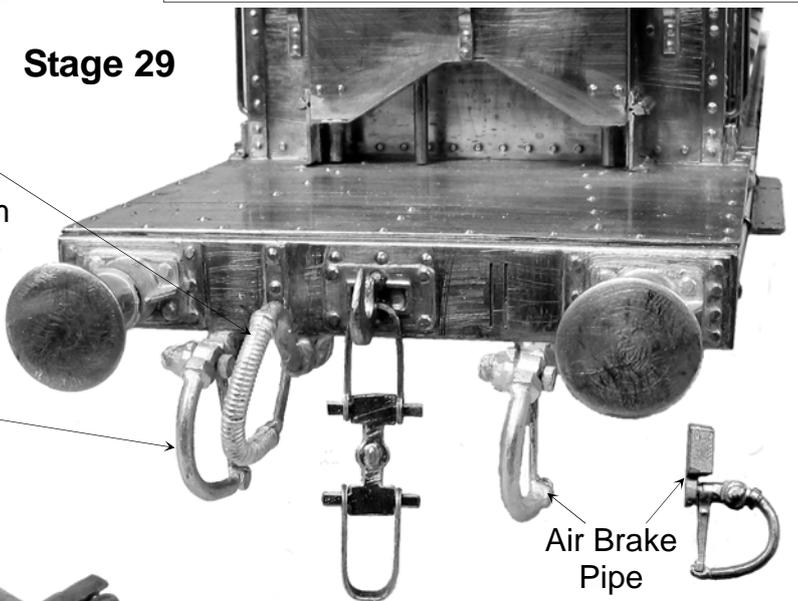
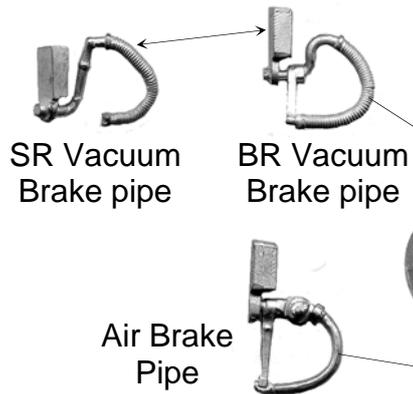


File top of link to enable it to swing freely

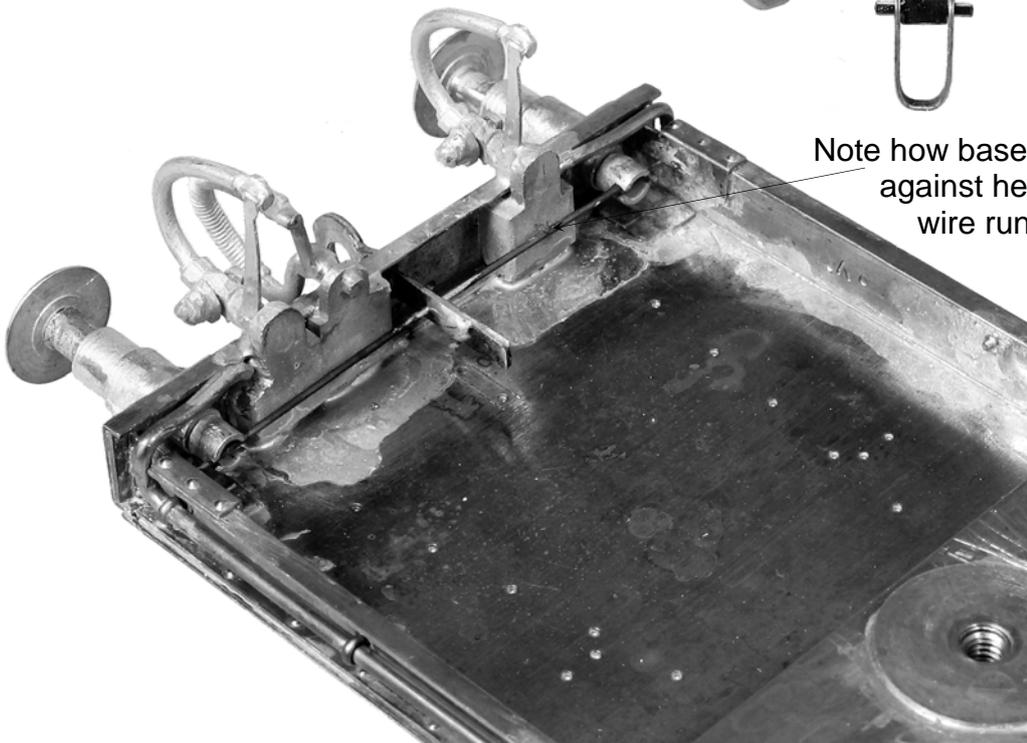
Stage 28



Stage 29

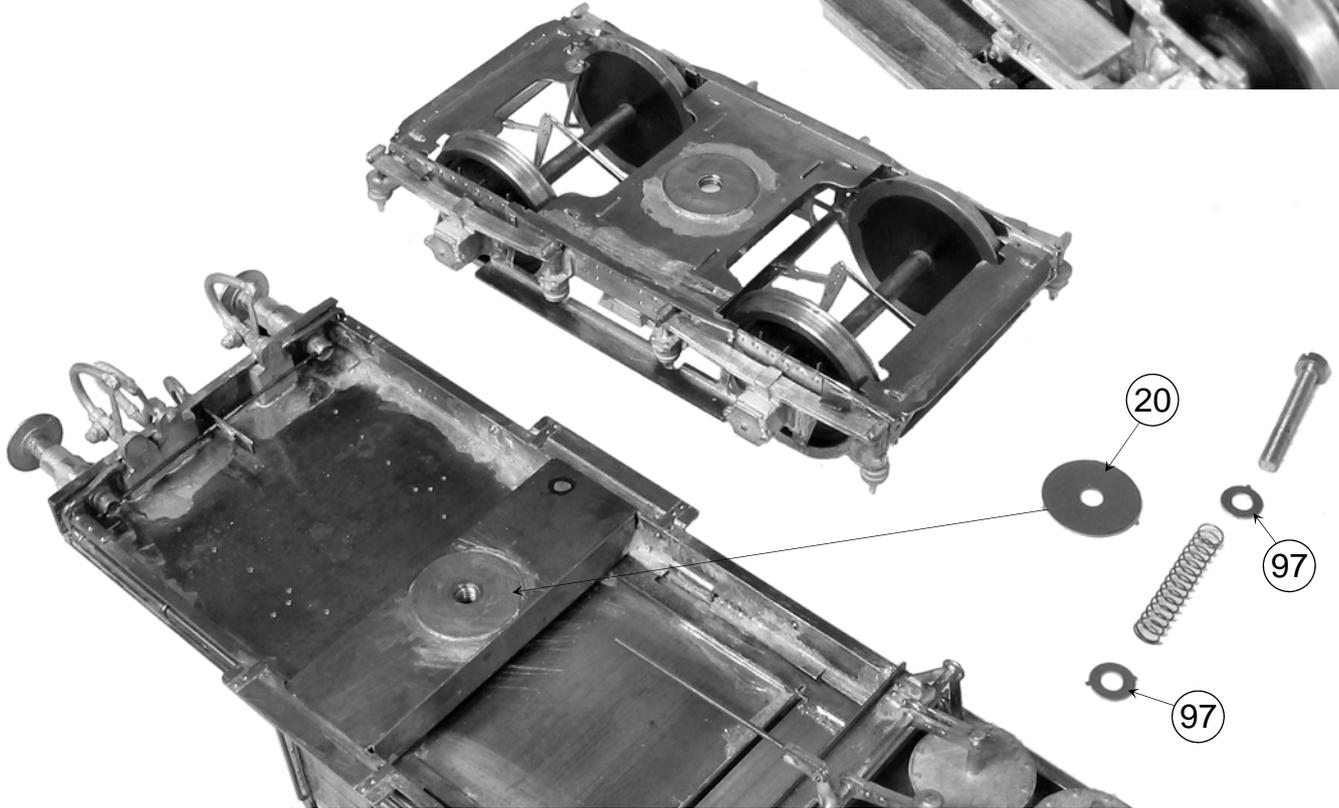
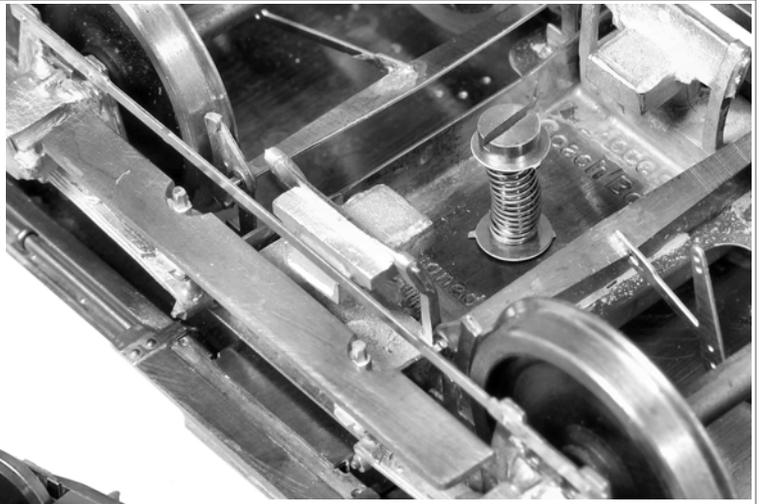


Note how base of castings fit hard against headstock and spring wire runs clear of castings.



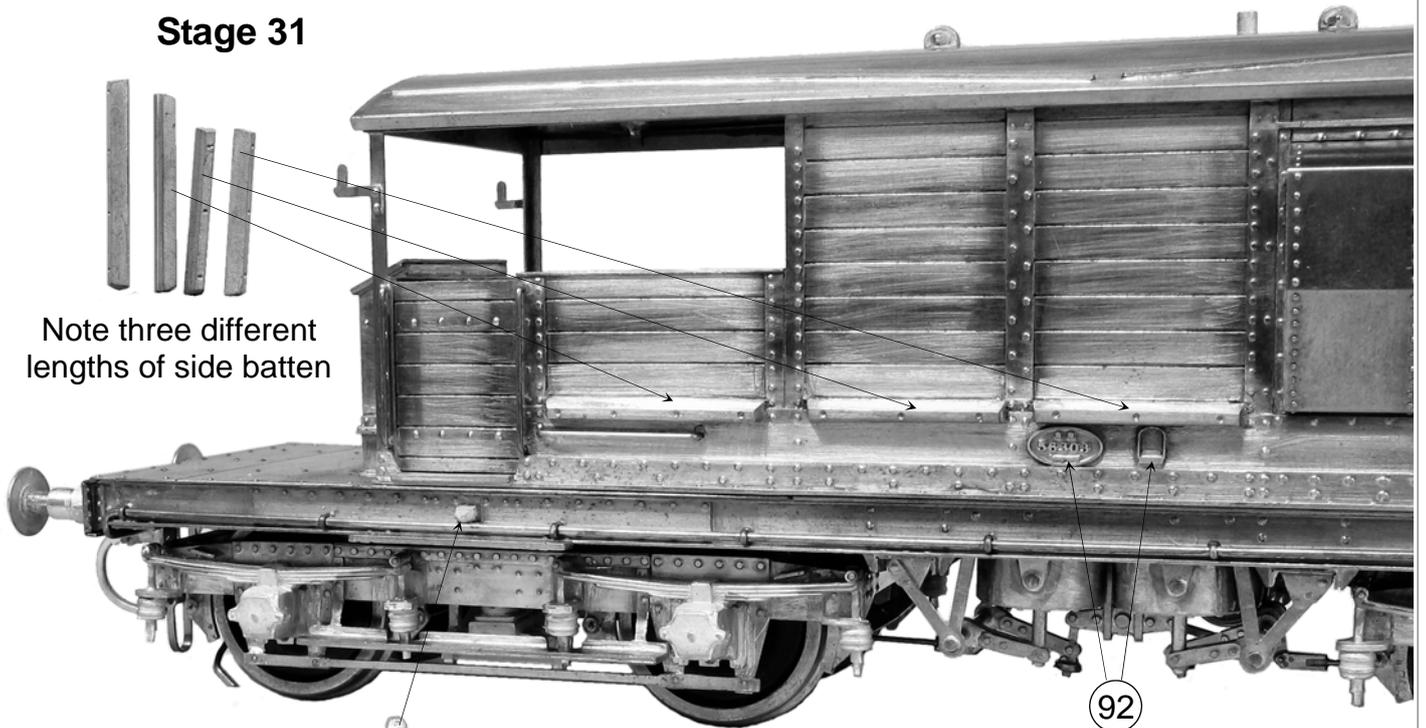
Stage 30

After the buffers are fitted the bogies can be temporarily fitted and the vehicle track tested. Check how the buffer heights correspond with your existing rolling stock. The buffer height can be increased by fitting an additional pivot washer (part 20) or extra packing made from scrap.



Stage 31

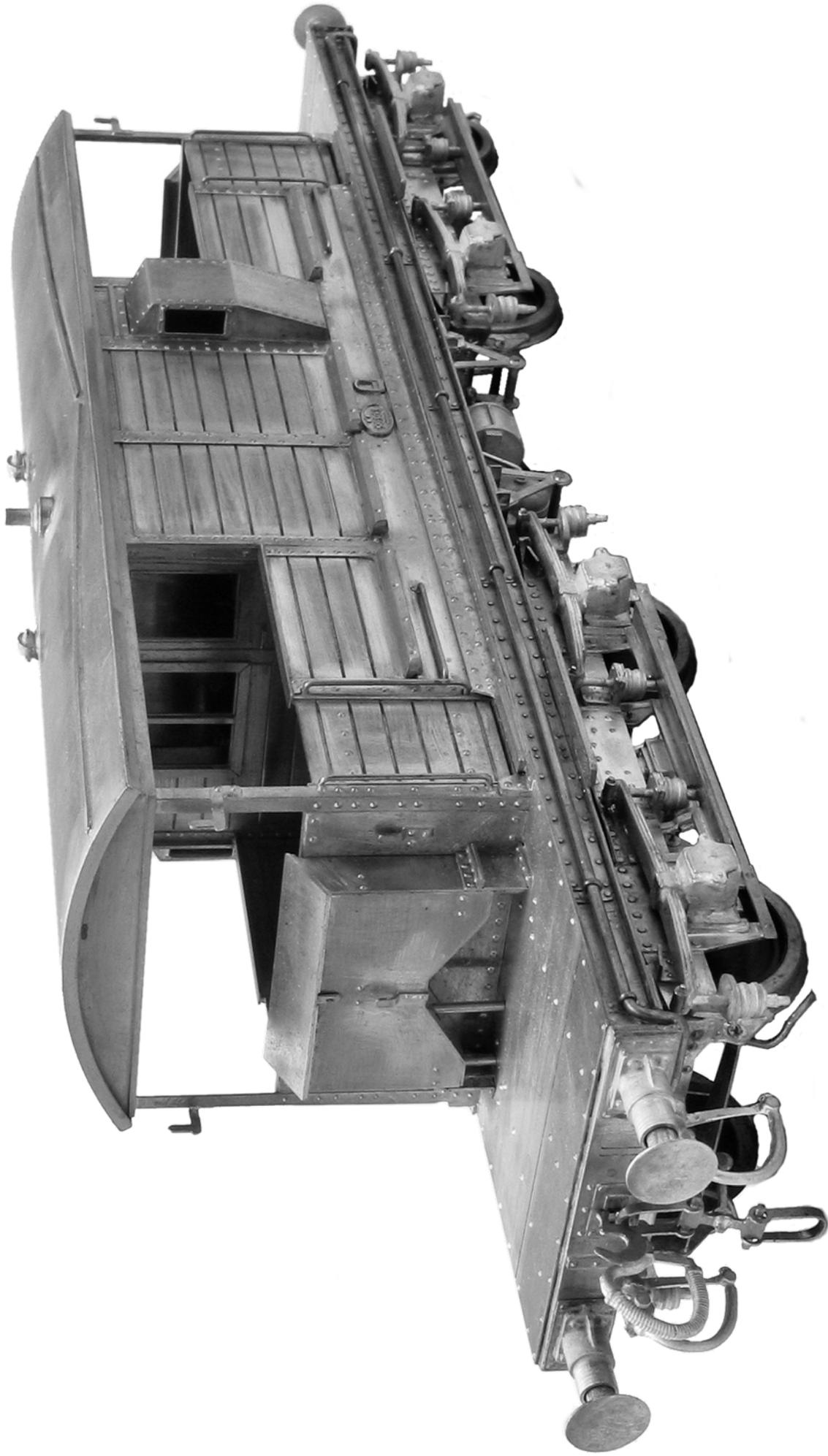
Note three different lengths of side batten



Bogie pivot oil box

Construction is now complete

Number plate and label clip





Can You Help Me?

If you have enjoyed building this kit and have been satisfied with the quality, I would be most grateful if you could recommend it to your friends and fellow modellers. Although my kits are not perfect, I try to put a lot of time and effort into producing them.

If I can get extra sales of a kit through customer's personal recommendation and I find that word of mouth is the best form of advertising. This will help me to put extra time and money into developing the next kit. Hopefully this will give me more satisfied customer to recommend my kits to their friends.

If you are not happy with this kit then please tell me. Hopefully I will then be able to help and sort out any problem.

Jim McGeown