Caledonian Railway 498 Class 0-6-0T loco kit

Packing list CR 498 class Beetlecrusher

Nickel Silver Chassis etch
Brass body etch
14 Brass bearings
2 off Cylinder wrappers (brass 39 x 17.5mm)
2 off Splasher tops (brass 8 x 12.5mm)
4 off 6BA ¼" cheesehead bolts
6 off 6BA brass nuts
1ft 0.7mm wire
1ft 0.9mm wire
1 off No 28 and 4 links
4 off 4mm buffer heads
4 off silver springs
4 off 10BA nuts
2 off coupler springs
2 off split pins (steel)
3 off short handrail knobs

Whitemetal castings

Lost wax castings

2 off CR2
1 off CR3
1 off CR4
1 off 1/32" ply (2" x 1½")
6 off brass bearings

Wheels required:

3 off Slaters 7848E 4'0" driver

Motor/gears of your choice
(Mashima 1833 plus Roxey 40:1 gearbox is a good choice if you are not sure.)

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Chassis construction

1. Cut out the two chassis sideframes (1), the front spacer (2) and the rear spacer (3). Ease the holes in the chassis until the bearings fit. Only a tiny amount of metal needs to be removed. I use a taper reamer. Solder the spacers to one of the chassis sides on a flat surface and then attach the other chassis side. Note that the half etched detail goes on the outside of the frames. In order to ensure squareness I loosely assemble an axle and two bearings whilst soldering the chassis together.

2. Solder the bearings into the sides and ream them with a 3/16" parallel reamer.

3. Solder together the coupling rod overlays – three layers give the scale thickness and will allow you to joint the rods if you wish to compensate the chassis. If you are using tight radius curves, you may consider using only two layers. Note that the outer layer has the knuckle joint detail on it. Using Slaters wheels the holes in the rods need to be drilled through 2.6mm. I then had to open them up to 2.7mm to achieve free running. Clean the edges of the rods with a file.

4. Take the connecting rod overlays (5) and solder them together – again drill through the big end 2.6 or 2.7mm and clean the edges.

5. Go to the etched brass sheet and remove the fold-up cylinders (6). Fold both ends of the cylinders to 90° and fix them to the chassis using 4 of the 6BA nuts and bolts. Nuts go inside the frames. Solder the bolts to the cylinders and then remove the cylinders. Refit them with the cast packing pieces behind them.

6. Fit the cast front cylinder covers. Fettle the crossheads and slidebars and ensure they move freely before attaching the connecting rods to the crossheads using the 12BA nuts and bolts supplied.

7. Fit the slidebars to the cylinders and check clearances on the rolling chassis. When everything is satisfactory you can fit the cylinder wrappers (supplied separately from the etch) and then add the front guardirons (7) and the rear ones (8).

8. Solder 0.9mm wire through the holes in the chassis to mount the brakes.

9. Solder the shoe overlays on to the brake hangers and mount them in pairs with another piece of 0.9mm wire through the bottoms of the hangers. I use a piece of brass tube over the 0.9mm wire to space the hangers out to align them with the wheels. If you join the pairs of brakes centrally with more 0.9mm wire, you can then spring the brakes over the chassis and remove them again if maintenance is required.

10. Attach the rear sandboxes and fit the draincock mechanism (see sketch).

11. You can use plunger pickups or wipers bearing on the tops of the wheels.

12. Fit the motion brackets (9) and the small step on the cylinder rear covers (10) if your loco had this addition. This should complete your chassis.

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Body construction

1. Take the footplate (11) and remove the remaining parts from the centre of it. The half etched marks are on the top of the footplate.

2. Remove the valances (12 & 13) and the front and rear buffer beams (14 & 15). Emboss the rivets on the bufferbeams if necessary. These only appeared in later life, I think.

3. Solder the front bufferbeam to the underside of the footplate and then solder on the valances, starting from the front and working back. There are half etched marks on the rear of the valances to indicate where the footsteps are attached. The valances are inset from the edge of the footplate by 1mm.

4. Attach the rear bufferbeam and the diamond shaped plates (16 & 17) for the couplings after embossing the two rivets.

5. At this point you should attach the footplate to the chassis using the other two 6BA nuts and bolts supplied. I solder the nuts to the footplate now as otherwise you will not be able to get at them later.

6. You can fit the footsteps (18, 19, 20 & 21) now or leave them till later. I usually strengthen them by soldering 0.9mm wire down the back and on to the underside of the footplate.

7. Whilst test-building the loco I noticed on the photos I have that the smokebox front does not have a raised ring behind the smokebox door as I have drawn. It was on the loco drawings I used. However this is no excuse for not noticing. So I would suggest that you cut out the smokebox front (22) and solder the ring (23) into it anyway, but on the inside, as it will provide a better fixing surface for the smokebox door.

8. There is provision for a row of rivets along the bottom edge of part 22. If your loco has these, impress them now.

9. Take the rolled boiler (24) and solder a piece of scrap etch on the inside of the seam.

10. Cut out the smokebox wrapper (25), rivet it if necessary and using parts 24 and 22 form it to the correct shape. When satisfied assemble the wrapper to the boiler allowing the wrapper to protrude 2mm forward of the boiler so that it is the correct length. This means that the holes for the boiler do not align properly. The correct position for the chimney is central to the hole in the wrapper, not the boiler. Blame the draftsman – sorry! When I first built the loco I also found that I had to trim approximately 1mm from each side of the wrapper.

11. To check the correct height use part 26 (tank front) as a guide. Also cut out part 27 (tank rear) and 28 & 29 (tank sides).

12. Using parts 26 and 27 form the tank sides around a piece of 3/16” bar. Cut out small notches from parts 26 and 27 to clear the driving wheels. These notches will be hidden when the splashers are fitted. I have indicated on the copy of the etch the amount to be removed.

13. Assemble these four pieces as a unit ensuring that the front and rear of the tanks fit inside the tank sides. It is easier to attach the front boiler band now and then you can solder the smokebox and tank units to the footplate.

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14. Take the cab front (30) and notch it to clear the driving wheels. Cut out the cab sides (31 & 32) and the cab rear (33).

15. Fold the cab rear as shown in the drawing and attach the spectacle rings (34) to the front and rear of the cab.

16. Assemble the cab front centrally to the tank with the spectacle rings facing the front of the loco. Add one side and then tack the cab rear in place, followed by the other side.

17. When you are satisfied that all is square, solder the cab up.

18. Bend the bunker rear (34) around your 3/16" bar to flare it out. Half etched detail goes on the outside of the bunker. Clean up the soldering as you go along, I find it much easier.

19. Form up the cab roof (35) and assemble the various strips to it to simulate the ribs on the prototype.

20. I like to make cab roofs removable and this can be done by using strips of scrap etch on the underside of the roof so that these act as clips to locate the roof on to the cab. There is a half etched line on the roof – this is where the central rib goes.

21. Fold up the floor supports (41 & 42) and fit them inside the cab.

22. Make the cab floor from the plywood supplied.

23. Parts 36 and 37 fold up to form the splashers inside the cab. They can go in now. You can also fit the backhead, reversing lever and brake handle.

24. Go back to the front of the loco and fit the front frames (38) and then the front splashers (39 & 40). Parts 41 are flanges that go round the front splashers where they meet the tank fronts.

25. You now only have left the etched boiler bands (42), cab beadings (43), lampirons (44) and the steps which go on the rear of the tanks (45).

26. Finally fit the handrails and then the castings in any order.

Alba Railway Models

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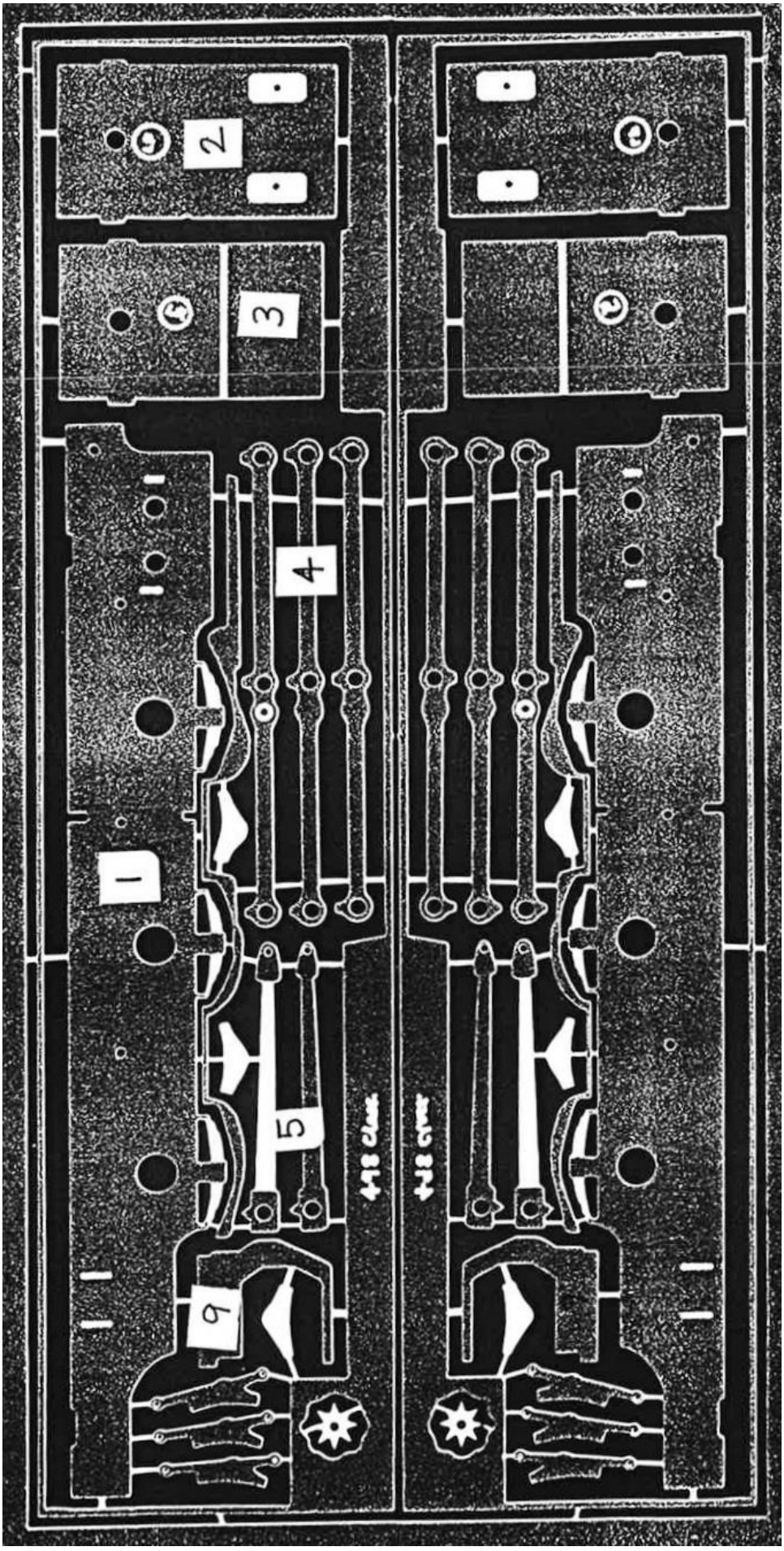

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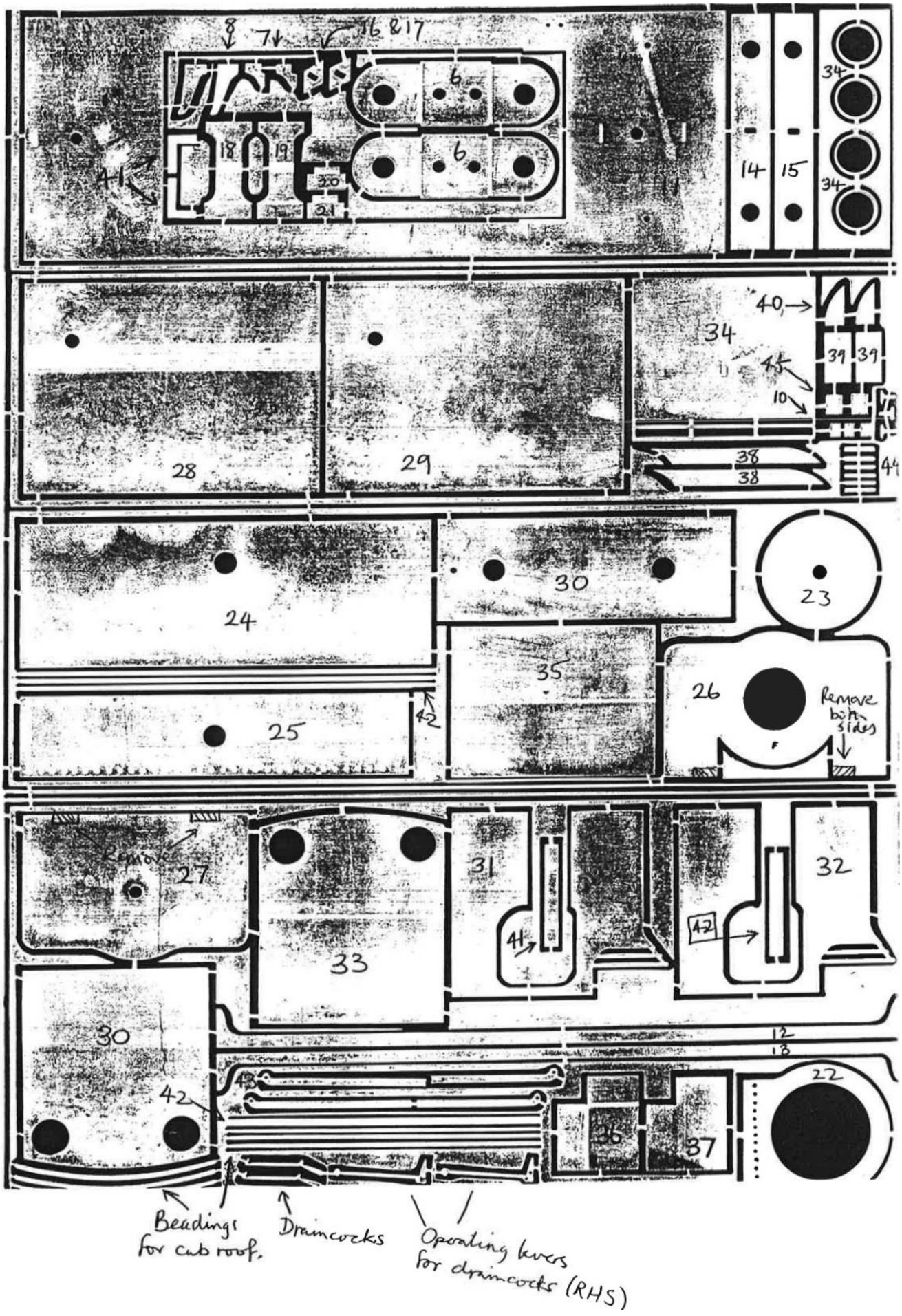

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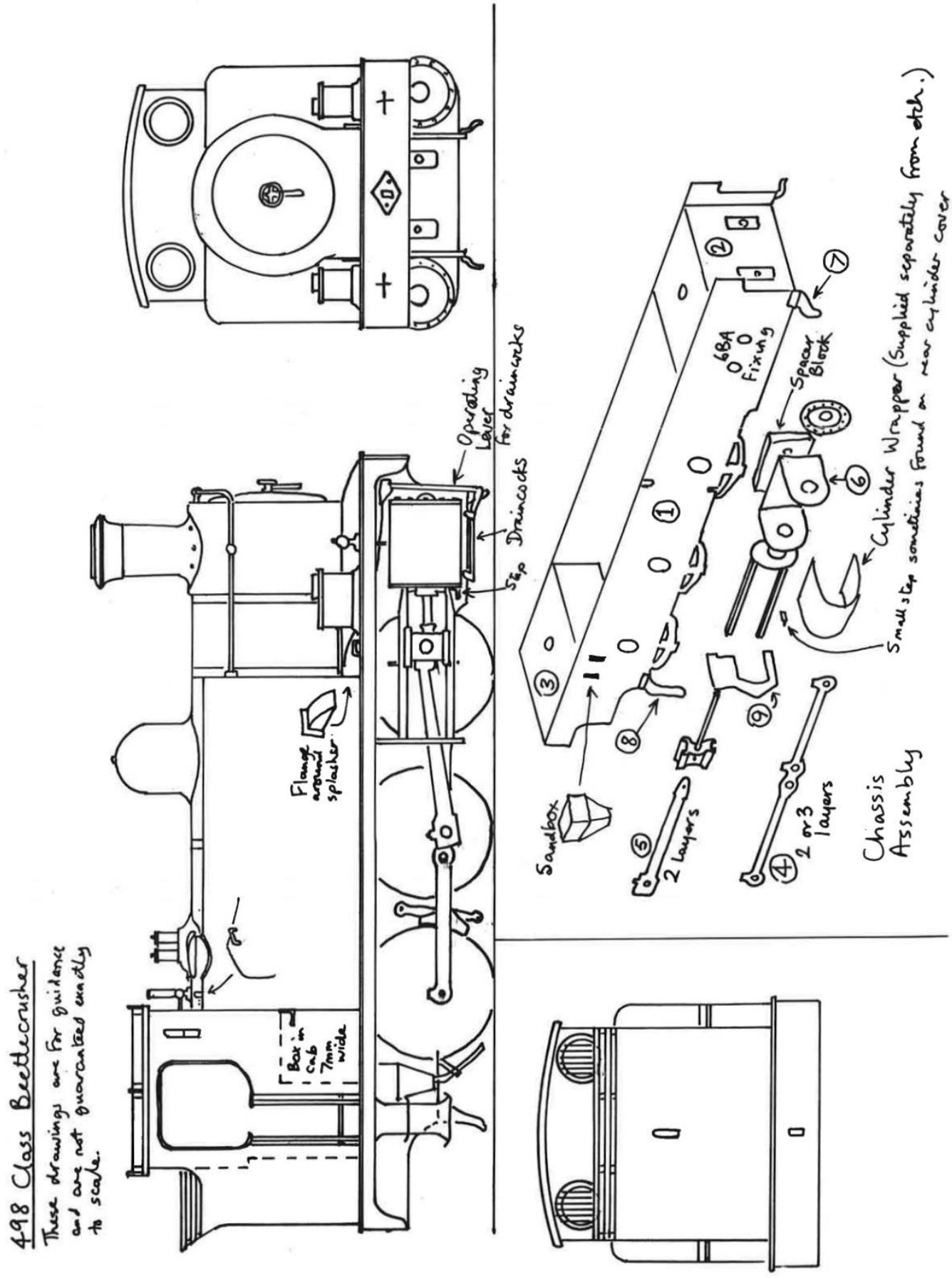

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