
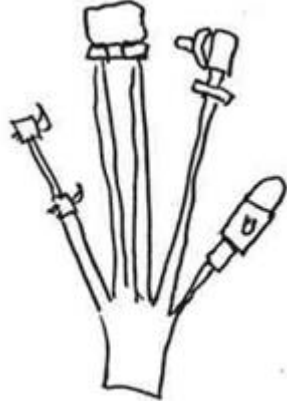

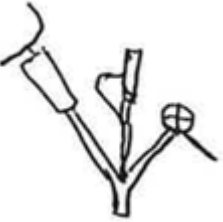



## Caledonian Railway 19 Class 0-4-4T loco kit

### Packing list CR 19 class

439 Chassis and rods  
 ½ sheet etch  
 Rolled boiler  
 Resin bunker  
 2 Square spacers  
 1 Perspex spacer  
 10 off 8BA ¼ CSK screws  
 2 off 8BA ½ screws  
 4 off 8BA nuts  
 1 long 6BA screw  
 2 off 6BA nuts  
 8 off Meteor bearings  
 2 off box length 0.9mm wire  
 2 off box length 0.7mm wire  
 6" 1.2mm wire

### Lost wax

				
1 off No 6	2 off 1 class (with or without lamp)	1 off 439	1 off Hooter, brake and wheel	1 off No 52

12" half round wire  
 2 off middle size springs  
 439 whitmetal pack + extra pack for 19 class  
 4 off 4mm buffer heads  
 4 off silver springs

4 off 10BA nuts  
 2 off No 22 – screw couplings  
 2 off split pins  
 2 off coupler springs  
 9 off short handrail knobs

## Caledonian Railway 19 Class 0-4-4T loco kit

Wheels required:

- 2 off Slaters 7837GP 3'1" 9 spoke bogie
- 2 off Slaters 7869CR 5'9" 20 spoke driver

Motor/gears:

Mashima 1833 & Roxey 40 to 1 short gearbox,  
or ABC or MSC 33 to 1 or MSC JH 33 to 1

### Assembly instructions (chassis)

1. Cut out and clean the edges of the chassis sideframes (1). Spring detail goes on the outside of the frames. On the inside are guide lines for hornblocks. If you fit hornblocks we recommend using our version and set them up with a set of our jigs.
2. The rear Perspex spacer (2) is fitted with 4 of the 8BA countersunk screws. The two brass spacers (3) fit centre and front and provide fixing points for the body later on.
3. Bearings (4) can now be soldered to the frames. I then pass a 3/16" reamer through the bearings to allow free running.
4. The sides of the ashpan (5) and the bogie stretcher frame (6) can be found on the body etch. Solder the ashpan sides on the inside of the frames. Fold up the bogie stretcher noting that all fold lines are on the inside of bends.
5. Cut out the bogie side frames and fix them to the stretcher using 8BA CSK bolts and 8BA nuts. The slider block (7) is a lost wax casting and fits in the slot in the centre of the stretcher. It needs a small plate to retain it in the slot. Use 2 of the small springs to give side control. You may need to shorten the bolts and pegs on the slider block to give the amount of sideplay required.
6. The long 6BA bolt fits through the Perspex spacer and is retained by a 6BA nut beneath the spacer. Use one of the large springs to provide up and down movement, shortening the spring as necessary.
7. Fit all the wheels with crankpins assembled. Solder together the coupling rod overlays and clean them up. Drill them to suit the crankpins, fit and then check for free running.
8. I usually short one side of the drivers and one side of the bogie, then wire the motor to the chassis and the bogie, affecting a kind of American pickup. You can, of course, use wiper or plunger pickups if that is your choice.
9. When the chassis is running to your satisfaction you can add the brake detail – hangers (8), overlays (9) and rodding (10). The rodding fits outside the wheels.

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### Body assembly

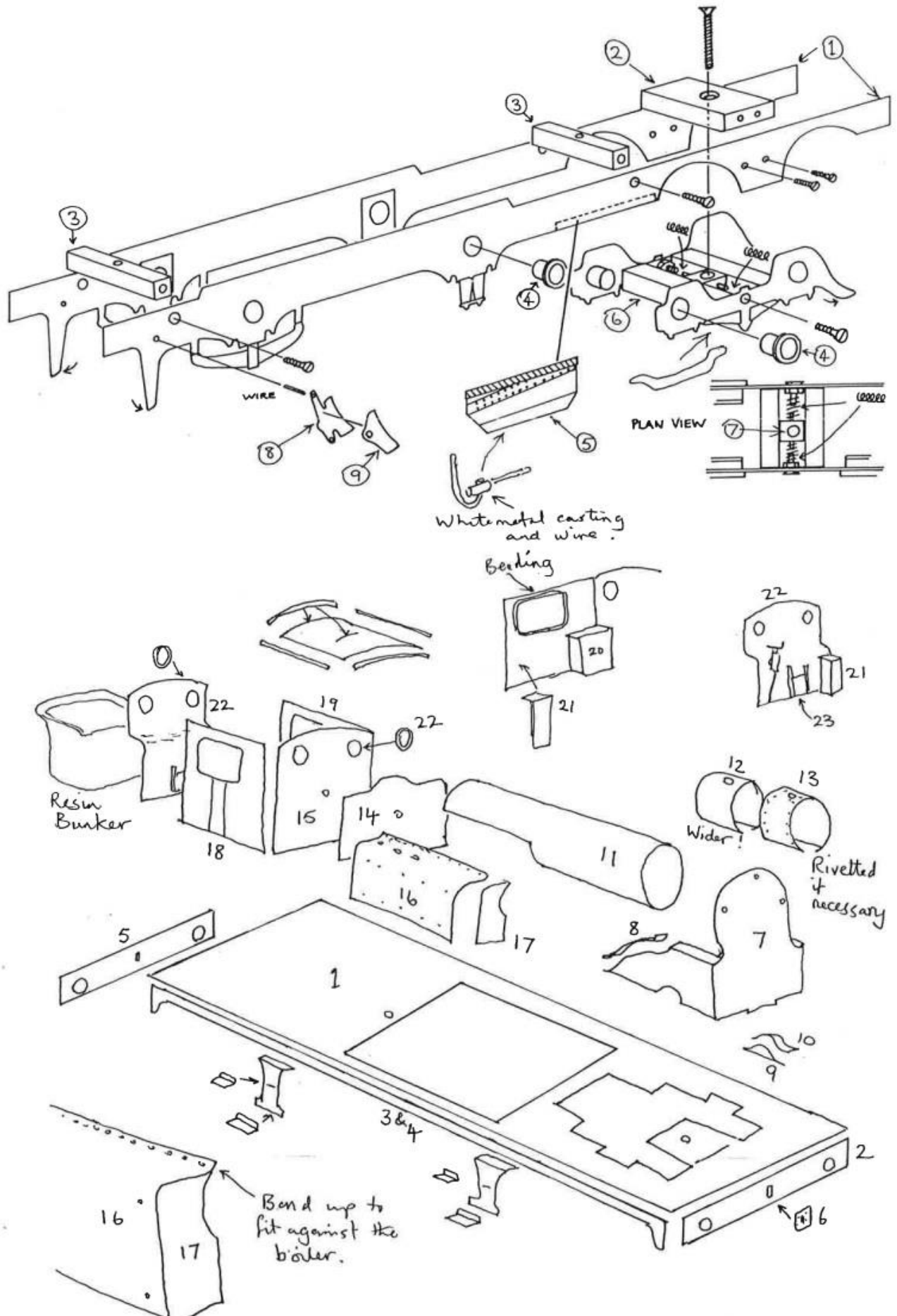
1. Cut out the footplate (1) and remove all parts from the centre. Solder the front buffer beam (2) centrally and  $\frac{3}{4}$  of a millimetre back from the front of the footplate.
2. Cut out the valances (3 & 4) and clean the edges. There are half etched marks inside to locate the steps. Check the drawing before fitting as they are handed. When happy fit them and the rear buffer beam (5). They should be placed  $\frac{1}{2}$  a mm in from the buffer beam ends.
3. Rivet and fit the coupler pockets (6) to the buffer beams.
4. You can fit the steps now or later. They are liable to get bent if done now.
5. Fold up the smokebox front (7) and bend down the sandbox tops. Fit to the front of the slot at the front of the footplate. Bend and fit the splasher tops (8). Fit the footplate to the chassis using 8BA nuts and bolts and solder the nuts to the top of the front footplate.
6. Form and fit the front crankpin splashers (9 & 10). The side fits inside the top or the splasher will be too small.
7. Solder the seam under the boiler (11). I reinforce the joint inside with scrap etch. Fit the two smokebox wrappers (12 & 13). The outer one was riveted in later days. Check a photo of your chosen engine.
8. Using the assembled boiler, file the splasher tops until the boiler sits level and flush with the top of the smokebox front.
9. Cut out the tank rear (14) and the cab front (15). Attach them to each other temporarily with an 8BA nut and bolt. Fit them to the boiler and the boiler to the smokebox front. When they are flush and level solder them in place. Note that the cab front is shorter than the tank rear. Make them level to achieve the correct cab height.
10. Drill holes for the sight glasses at the rear of the tank, if fitted.
11. Rivet and form the side tanks (16), fit the tank fronts (17) and fit them to the boiler and footplate. Note that the top of the tank needs curving up slightly to join the boiler. I also found I had to trim a little from the bottom of the tank side to allow it to sit correctly. Some filing fettling will be necessary to achieve a good fit.
12. Fit the cab side sheets (18 & 19) and fold up the larger boxes to fit inside the cab (20).
13. Fit the coal door (23) to the inside of the cab rear (22).
14. Fit the smaller boxes (21) in the rear corners of the cab once you have fitted the cab rear.
15. Time to start detailing now, spectacle rings can be fitted (22). If you are modelling Caledonian/early LMS days, you will need to fill the holes round the rear spectacle rings. If modelling a later period, you need to fit coal bars over the rear spectacle rings. I used 0.7mm brass wire.
16. Using the drawing as reference fit the two strengthening angles to the cab rear.
17. Fit the resin bunker with glue.

## Caledonian Railway 19 Class 0-4-4T loco kit

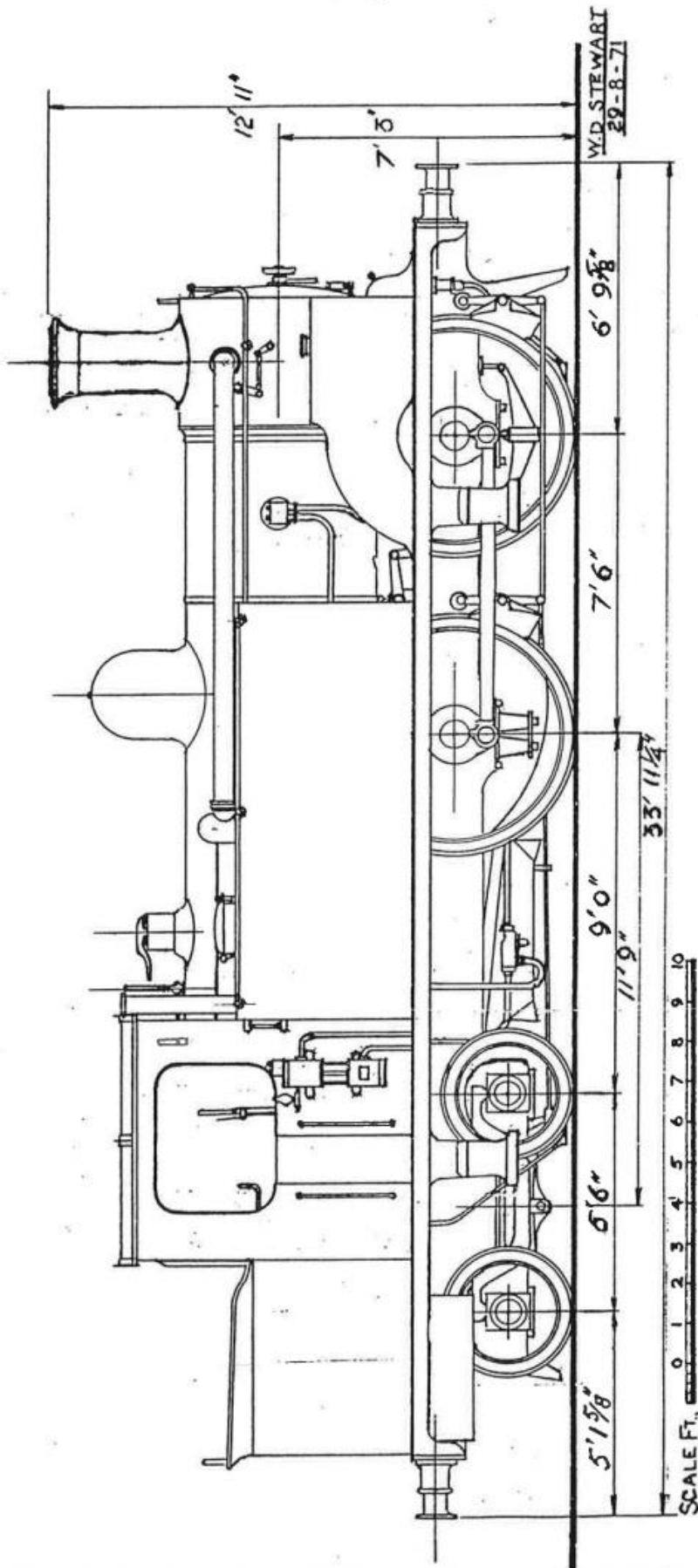
18. Detailing is up to you now, but I will suggest an order anyway. I next fit the cab beadings and cab handrails. Next fit the injectors, double ones for Caledonian days, single for late LMS and BR.
19. Next fit tank top handrails and the handrail around the smokebox. Also fit the water glasses to the rear of the tank.
20. Form the cab roof and fit the strengthening ribs. I like to make this detachable using four pieces of wire or scrap etch in the corners to hold it in place.
21. Attach sandpipes to the chassis from 1.2mm wire. I forgot to mention this earlier.
22. Continue detailing. Attach the small lever to the RHS of the smokebox (condensing locos only) and the front sandbox lids. Fit lampirons to the side of the cab, the smokebox top and the rear of the bunker. In LMS days they were fitted to the footplate front and rear as well.
23. Fit the lubricators to the smokebox front. Cylindrical ones are supplied but if you return them we will replace them with globe ones if necessary. Also fit the valve chest cover, smokebox door and dart.
24. Add the buffers, Westinghouse pipes and vacuum pipes (if fitted). Also add the steps, if you haven't already. I like to strengthen them from behind with an L shaped piece of 0.9mm wire.
25. Fit the air tanks to the lower rear footplate. Clearance for the bogie is a bit tight for sharp curves so part of it may need to be filed away, or you could even saw one in half and solder half to each side.
26. Fit the hooter, safety valve, dome, chimney and tank fillers. For CR days you will need to make the safety valve lever from scrap.
27. Fit the condensing gear if you are using it. It was removed in early LMS days.
28. Fit the backhead. Fit the brake handle and reversing lever to the right hand side of the cab.
29. Make the coal rails from half round wire if fitted (only in LMS days).
30. Finally fit the Westinghouse pump.

# Alba Railway Models

## Caledonian Railway 19 Class 0-4-4T loco kit



Caledonian Railway 19 Class 0-4-4T loco kit



SCALED FROM OFFICIAL DRAWING NO 8971

Courtesy of the Caledonian Rly Association

**CALEDONIAN RAILWAY**  
**MCINTOSH 19 CLASS CONDENSING TANK**



Caledonian Railway 19 Class 0-4-4T loco kit

