T9 INSTRUCTIONS (WIDE BODIED)

Take the footplate (1), lay it upside down on a flat surface (the hole for the vacuum pipe should be to the left hand side of the finished loco), and solder the drag beam (2) to it, slightly in from the rear edge. Next solder the valances (3) to the footplate, 1/2mm in from each edge, then solder the buffer beam (4) in place, followed by the buffer beam overlay (5). Solder the step plates (6) behind the valances with their centre lines 35mm back from the front edge of the footplate. Bend up the ends of the steps (7) and fix into the slots in the step plates and valances. Solder two 8BA nuts (8) over the holes on the footplate centre line to screw the chassis to, and then solder the lower frame pieces (9) into the slots in the footplate, checking against the chassis that they come midway between the bogie wheels. Solder the front frame pieces (10) behind the buffer beam, in line with parts (9), checking the bogie wheel clearances before continuing.

Next take the cab and splasher sides (11) and the cab front splasher tops (12), carefully curve the splasher tops to match the sides, and then solder the parts together. Note that the cab front/splasher tops fit between the sides, and not onto the edges of the sides. The assembled cab and splashers can now be soldered to the footplate, checking that everything is flat and square before finally fixing, and filing the ends of the splasher tops as necessary to ensure a good fit to the footplate. Fit the cab window rims (13) into the half-etched recesses round the cab windows.

Solder the upper frame pieces (14) into the slots in the footplate, and then fix the riveted overlays (15) to them. Make the small grab handles from short pieces of the handrail wire. Fix the cast sandbox tops (16) in place, followed by the reversing lever end (17), and the small vertical cylinder (18). Bend the cab floor support (19) and solder in place, very slightly in from the rear footplate edge, and with its ends against the inside faces of the cab sides, then solder the cab floor (20) to it. Bend the two cab splashers (21) along the etched fold lines and solder them to the cab floor and cab sides. The rear face of these should be almost level with the rear edge of the cab sides.

Turn now to the boiler/firebox (22), check that the lower part of the firebox sides are 17mm apart, and solder along the seam of the boiler. Next bend the smokebox inner (23) to shape, straightening out the lower part of the sides so that they fit between the upper frame pieces, and solder it to the boiler. Solder the inner smokebox front (24) in place, then form the smokebox outer (25), and fit this and the smokebox front overlay (26) to the smokebox. Now solder the saddle front (27), and the saddle rear (28) to the smokebox saddle, checking at the same time the fit of the saddle between the upper frame pieces, and the alignment of the tag on the saddle front with the slot in the footplate. Check at the same time the fit of the boiler unit to the footplate and cab, then fit the three boiler bands (29) in place. The assembled boiler can now be fitted to the footplate/cab, checking before finally fixing that everything is square and level. Once fitted the washout plugs (30) can be fitted and boiler handrail can be made from the 26g handrail wire (31) and the handrail knobs (32). Fit the cylinder cover (33) in front of the smokebox saddle, between the upper frame pieces.

Turn back to the cab, take the regulator handle (34) and fix it to the backhead (35), then fix the backhead in place in the cab. Curve the cab roof (36) to match the cab front, bend up the side edges along the fold lines, and then solder it to the cab. Fix the rain strips (37) into the half-etched lines in the roof. The lower rain strip on the etched sheet is slightly longer than the other two to allow for the curve in the rear edge of the cab roof. The cab side beadings (38) can now be fitted, bending them during fitting to match the shape of the cab side cut-outs. The beading should be continued along the underside of the cab roof, and the ends trimmed flush with the rear edge of the roof after fitting. Now make the cab handrails from the handrail wire, threading the wire through the holes in the ends of the beading, and through the holes in the footplate either side of the cab floor. Solder the whistle (39) in place, then use some of the 22g wire to make the injector pipes (40) either side of the firebox, bending over the top

ends to fit into the holes in the firebox top either side of the whistle, and fitting the lower ends through the holes in the splasher tops. Now make the three smaller pipes (41) from the whistle and injector pipes to the cab front from some of the handrail wire. Fit the dome (42), chimney (43), and clacks (44) to the boiler, then make the clack pipes (45) from 22g wire, fixing one end into the hole in the underside of the clacks, and the other end through the hole in the splasher tops behind the leading splashers. Turn now to the smokebox, and fit the front step (46), and upper lamp bracket (47) to the smokebox front. Fit the two lamp brackets (48), and the smokebox door handles (49) to the smokebox door (50), and then fit the door to the smokebox. Fit the front lamp brackets (51) to the footplate, and then fit the buffers (52), and vacuum pipe (53).

Lastly, turn back to the cab, take the fall plate (54), curve it slightly, make a hinge from handrail wire and the two split pins (55), and fix it into the holes in the cab floor, making sure that it pivots freely.

CHASSIS ASSEMBLY

Take the frames (1) and solder in the axle bushes (2), making one frame LH and one RH. Choose either the '00' or 'EM' frame spacers (3) as required, bend as shown on the diagram, and solder the frames to the spacers, making sure everything is assembled square and flat. Solder an 8BA nut (4) over the hole in the main spacer half way between the axles, and another over the hole in the smallest spacer to which the bogie link will be attached. If fitting a D11 motor screw the motor to the mounting plate (5) using two washers (6) under the screw head. Put an axle and the Romford gear in the chassis to check the gear mesh, adjust if necessary, the fix the mounting plate in place. If fitting a Portescap 1219 motor this plate will not be necessary. Solder pieces of the 22g wire through the holes in the frames to form the brake gear supports (7). It may be found easier to paint the frames behind where the wheels will be at this stage rather than after the wheels have been fitted. Next fit the wheels, axles, gear, and crankpins to the chassis, using the four axle washers (8) to take up any side play. Fit the pairs of coupling rod halves (9) together, place the rods on the crankpins and check that the wheels revolve freely, and then fit four small washers (10) to retain the coupling rods. Put paper between the coupling rods and the washers when fixing to avoid soldering the rods to the crankpins, and then remove the paper afterwards. Screw the collector tag (11) to the main spacer using one of the 8BA screws (12) and the two fibre washers (13). Check that the tag is not electrically live to the chassis, then form current pickups using some of the 26g handrail wire (14) soldered to the tag. Now take the brake hangers (15) and solder the brake blocks (16) to them, making LH and RH pairs, then solder the assembled brakes to the support wires (7), making sure they do not touch the wheels, fitting the brake tie bars (17) and pull rods (18) at the same time. Fit the ashpan sides (19) to the underside of the chassis, being careful that they do not touch the collector tag or wire, and then fix the two ejectors (20) to the chassis sides.

Turn now to the bogie (21) and fold down the sides at right angles to the centre stretcher, then solder the two strengthening plates (22) between the frames below each edge of the stretcher. These two pieces may require slight trimming to fit. Now fix the two large washers (23) on the underside of the bogie centre. Next fix the dummy equalizing beams (24) to the bogie frames, so that the axle holes line up. if working in '00' the beams should be spaced off the frames with one axle washer (25) per axle hole. If working in 'EM' two washers per hole between the beams and the frames should be used. Next fit pieces of 22g wire through the small holes at the front and back of the bogie to form the tie bars (26), then fit the wheels to the bogie. Now take the bogie link and its washer (27), solder the washer over the smaller end of the link and tap the hole 8BA. Screw the link to the bogie leaving a small amount of play and shorten the screw so that its end is flush with the top surface of the link. The bogie can now be screwed to the chassis using an 8BA screw and the cast pivot (28). The drawbar (29) and the drawbar pivot (30) are fixed to the chassis with the same screw used to screw the rear end of the chassis to the superstructure.

SUPERSTRUCTURE PARTS LIST

1. Footplate
2. Drag beam
3. Valances - 2
4. Buffer beam
5. Buffer beam overlay
6. Step plates - 2
7. Steps - 2 short, 4 medium, 2 long
8. 8BA nuts - 2
9. Lower frame pieces - 2
10. Front lower frame pieces - 2
11. Cab and splasher sides - 2
12. Cab front and splasher tops
13. Cab window rims - 2
14. Upper frame pieces - 2
15. Upper frame overlays, LH & RH
16. Sandboxes - 2
17. Reversing lever end
18. Small vertical cylinder
19. Cab floor support
20. Cab floor
21. Cab splashers, LH & RH
22. Boiler/firebox
23. Smokebox inner
24. Inner smokebox front
25. Smokebox outer
26. Smokebox front overlay
27. Smokebox saddle front
28. Smokebox saddle rear
29. Boiler bands - 3
30. Washout plugs - 4
31. Handrail wire
32. Handrail knobs - 10
33. Cylinder cover
34. Regulator handle
35. Backhead
36. Cab roof
37. Rain strips - 2 standard, 1 long
38. Cab side beading, LH & RH
39. Whistle
40. Injector pipes, 22g wire
41. Pipes to cab front, 26g wire
42. Dome
43. Chimney
44. Clacks -2
45. Clack pipes, 22g wire
46. Smokebox front step
47. Upper lamp bracket
48. Door lamp brackets, LH & RH
49. Smokebox door handles
50. Smokebox door
51. Lower lamp brackets - 3
52. Buffers -2
53. Vacuum pipe
54. Cab fall plate
55. Wire & split pins for hinge

CHASSIS PARTS LIST

1. Frames.
2. Axle Washers.
3. Frame Spacers.
4. 8BA Nuts.
5.
6. Washers.
7. Brake Gear Supports.
8. Driving Wheel Axle Washers.
9. Coupling Rods.
10. Crankpin Washers.
11.
12. 8BA Screws.
13.
14.
15. Brake Hangers.
16. Brake Blocks.
17. Brake Tie Rods.
18. Brake pull Rods.
19. Ashpan Sides.
20. Ejectors.
21. Bogie.
22. Centre Strengtheners.
23. Centre Washers.
24. Equalising Beams.

25. Bogie Axle Washers.
26. Tie Bars.
27. Bogie Link and Washer.
28. Bogie Pivot.
29. Drawbar.
30. Drawbar Pivot.

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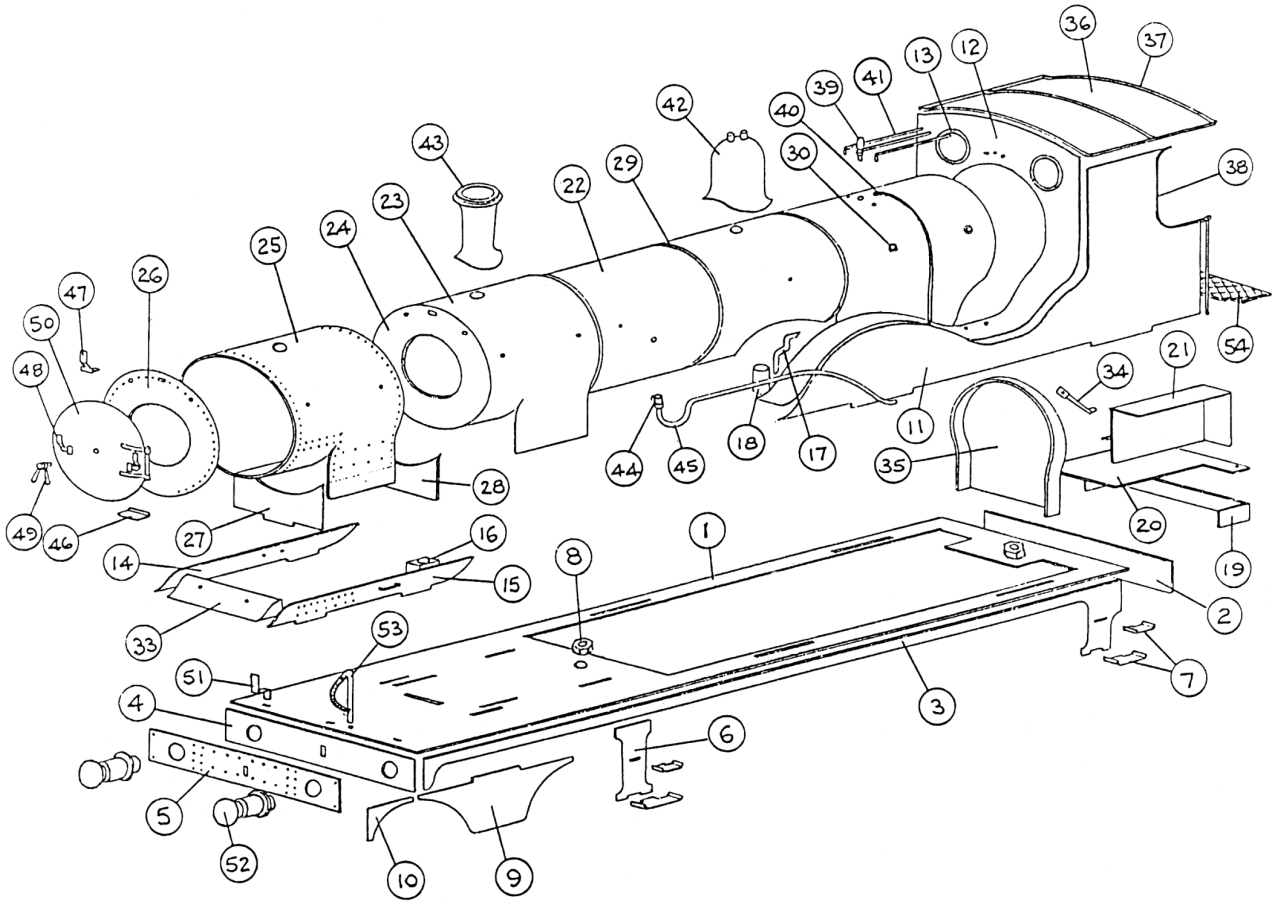
SUPERSTRUCTURE ASSEMBLY



CHASSIS ASSEMBLY