J17 Instructions

Chassis Assembly.

Take the frames (1) and solder in the axle bushes (2), making one frame L/H and one R/H. Select the 'OO' or 'EM' frame spacers as required, solder an 8BA nut (3) over the hole in the centre section of the main spacer, and, if fitting a D11 motor, solder two of the washers (4) over the hole in the centre of the motor mounting. Now assemble the frames, spacers (5) and motor mounting (6), ensuring that everything is assembled square and flat before finally soldering together. Bend the guard irons (7) and solder to the frames.

Solder pieces of the .7mm wire through the three holes in each frame to form the brake gear supports (8). Now take the brake hangers (16) and solder the brake blocks (17) to them, making three L/H and Three R/H. Then solder the hangers to the support wires (8), ensuring that the brakes will not touch the wheel rims. Thread .7mm wire through the lower holes in the hangers so that the ends protrude beyond the faces of the wheels, place the pull rods (18) over the ends of the wires and solder them in place, trimming the ends of the wires after the rods are fixed. It will be found easier to paint the frames at this stage rather than after the wheels are fitted.

Next fit the wheels, axles, gear and crankpins to the chassis, using the four axle washers (9) to take up the side play on the front and rear axles. The centre wheels require side play to negotiate curves. Fit the pairs of coupling rod halves (10) together. Place the rods on the crankpins and check that the wheels revolve freely, cleaning out the holes with a No. 60/1mm drill if necessary, then fit the rods using the six small washers (11) to retain them on the crankpins. Put paper between the washers and rods during assembly to avoid soldering everything up solid, then remove the paper after fixing.

Screw the collector tag (12) to the main chassis spacer with one of with one of the 8BA screws (13) and the two fibre washers (14). Check that the tag is not electronically live to the chassis, then form current collectors using some of the .45mm wire (15) soldered to the tag. If using a D11 motor screw this to the mounting plate, checking that the gears mesh correctly. The drawbar (19) and pivot (20) are secured with the same 8BA screw used to fix the rear end of the chassis to the body.

Superstructure Assembly.

Lay the footplate (1) on a flat surface and solder the buffer beam (2) to it, slightly in from the footplate edge. Next solder the valances (3) to the footplate, 1/2mm in from the footplate edge, then fix the drag beam (4) in place. Bend up the ends of the steps (5) and fix into the slots in the valances. Solder an 8BA nut (6) over the holes in the front and rear ends of the footplate to fix the chassis to.

Take the front splasher sides (7) and splasher tops (8), form the tops to match the sides, assemble the splashers and fix to the footplate. Fit the small riveted covers (9) to the front of each splasher, then fit a sandbox filler cap (10) into the hole in the splasher tops. Take the middle splasher sides (11) and the tops (12), curve the tops to match the sides, assemble the splashers and solder to the footplate. Now slot the frame pieces (13) into the footplate between the splashers, and then fix the mechanical lubricator (14) to the front splasher on the right – hand side of the loco.

Take the cab sides (15) and cab front (16), form the bottom of the front to match the sides, solder the sides to it (the front sits between the sides), slot the assembled parts to the footplate and fix in place. Bend the ends of the cab floor support (17) at right angles, and then fix this and the cab floor into the cab. If using a D11 motor remove the section with half etched lines from the cab floor to clear the worm, then bend the worm cover (19) to shape and fix over the resulting gap in the cab floor. Carefully remove the cab window surrounds (20) from the fret and fix these into the half etched recesses around the cab windows. Take the middle sandboxes (21), bend to shape, fit a riveted cover (22) to the front of each and a sandbox filler cap (10) into the hole in the top of each, and then fit the assembled sandbox to the footplate. Repeat this process with the rear sandboxes (23).

Turn now to the boiler (24), roll to shape and solder up the seam. Form the smokebox inner (25) to the shape of the smokebox front (26), then assemble the three pieces. The smokebox inner fits behind the front, not over its edge. Now shape the riveted smokebox outer piece (27) and fix to the boiler unit, over the edge of the smokebox front. Form the firebox (28) to shape and solder it to the front (29), making a large fillet of solder around the join, so that the front edge of the firebox can be rounded off with a file afterwards. Once this is done, fix the firebox to the footplate and cab, then fix the boiler to the footplate and firebox. It is important that everything is constantly checked for squareness in every direction at this stage, both from the side and from above and that the footplate is kept flat during assembly.

Once assembled four of the five boiler bands (30) can be fitted. The longest one is for the firebox and the third boiler band should not be fitted until the dome is in place. Next form the boiler handrail from the wire provided (31) and fix in with the handrail knobs (32). Now fix the two small front frame pieces (33) either side of the smokebox. (It may be found easier to use a suitable adhesive rather than solder for these two small parts). Take the smokebox door handles (34) and upper lamp bracket (35), fix these to the smokebox door (36), then fit the door to the smokebox front.

Next fit the clacks (37) into the boiler and form the pipes (38) from some of the .7mm wire. Turn back to the cab, take the backhead (39) and, if using a D11 motor, cut away a section of the bottom of the backhead to clear the worm cover. Fit the regulator handle (40) to the backhead, then fix the backhead into the cab. Curve the cab roof (41) to match the front, with the half – etched lines on the outside, then fix to the cab, and fit the two rainstrips (42) into the half – etched slots. Fit the cab side beading strips (43) to the cab sides, bending to shape whilst fixing and fit the cab handrails at the same time. Curve the fallplate (44) and fit to the cab floor, making a hinge from some of the handrail wire and two split pins. Fix the

reversing lever and its end cover (45) to the right hand side of the loco, then fit the boiler fitting (46 – 50) and the last boiler band, followed by the three front lamp brackets (51) and buffers (52).

Between 1942 and 1951 seventeen of the class were fitted with vacuum ejectors and steam heat connections for passenger train working. If modelling one of these it will be necessary to fit a vacuum pipe (53) to the front buffer beam and to make an ejector pipe from the remaining .9mm wire. Holes should be drilled in the smokebox and the upper corner of the firebox on the right hand side of the loco, into which this can be fitted.

Tender Assembly.

Take the chassis (1) and bend down the sides at 90 degrees to the centre. Solder an axle washer (2) over each axle hole, then clean out each hole with a 2mm drill. Solder .7mm wire through the three holes in each frame to form the brake gear supports (3). Fit the wheels to the chassis using axle washers to take up the side play, but leaving some side play in the centre axle. Take the brake hangers (4) and solder the brake blocks (5) to them, making three L/H and three R/H. Then solder the hangers to the wire supports making sure that the brakes do not touch the wheels. Take the pull rods (6) and thread .7mm wire (7) through these and through the holes in the lower end of the hangers. Solder in place when assembled and trim the ends of the wire after assembly.

Turn now to the body, take the footplate (8), slot the frames (9) into it and fix in place, then solder the buffer beam (10) and drag beam (11) in place. Take the sides (12), flare out the top edges over a piece of 3/16th dia. bar and bend up the coal guards along the etched lines, then take the back (13) and flare out the top of this also. Slot the back into the footplate and fix it and the sides to the footplate, so that the sides are level with the footplate edges. Now bend three of the four lamp brackets (14) and fix into the slots in the back, then make the handrails (15) for the sides and the back. Take the coal plate (16) and bend along the fold lines as shown in the diagram, with the etched fold lines underneath, so that the slots for the fire iron rack (32) are on the left side of the tender, fit the bulkhead (17) into the slots. Fit the rectangular coal space sides (18) in place, then fit the assembly into the tender, slotting the base of the bulkhead into the footplate. Bend the ends of the floor support (19) at right angles and fix in place, then bend up the floor/front plate (20) along the etched line so that the brake column hole is on the left side and fix it to the floor support and coal space. Solder the two rectangular pieces (21) in the remaining gaps either side of the front plate.

Now take the side beading (22) and back beading (23), curve these to match the flare of the tender sides and back and solder in place. Solder the coal guard beading (24) to the coal guards, then solder the step plates (25) to the underside of the footplate. Bend up the ends of the narrow steps (26) and fit these to the step plates, then bend up the ends of the wide steps (27) and fit them into the slots in the rear end of the frames. Bend the guard irons (28) to shape and solder them to the buffer beam, then fit the buffers (29). Fit the axleboxes (30) to the frames, then solder the 1/16th dia. drawbar pin (31) to the footplate

and drag beam. Slot the fire iron rack (32) into the top of the coal plate, then form the two toolboxes (33), curve the lids (34) to fit and solder the toolboxes into their respective slots, the narrower toolbox going on the left – hand side next to the fire iron rack. Fit the two cupboard doors (35) to the front of the coal space, then fit the two side plates (36) into the slots in the coal space front, either side of the floor. Fit the two small beading pieces (37) to the tops of these, then thread handrail wire through the ends of these and through the holes in the footplate to form the front handrails. Fit the brake column (38) into the hole in the floor, the tank fillers (39) into the holes in the rear of the coal plate and fit the last lamp bracket to the centre of the top of the tender back. Lastly fit a vacuum pipe (40) to the buffer beam if modelling a vacuum fitted loco.

J17 Parts List.

Chassis.

1. Frames.
2. Axle Bushes.
3. 8BA Nut.
4. Motor Fixing Screw Washers.
5. Frame Spacers.
6. D11 Motor Mount.
7. Front Guard Irons.
8. Brake Gear Supports (.7mm wire).
9. Axle Washers.
10. Coupling Rods
11. Crankpin Washers.
12. .
13. 8BA Screws.
14. Fibre Washers (Not Supplied).
15. Pickup Wire (.45mm wire).
16. Brake Hangers.
17. Brake Blocks.
18. Brake Pull Rods.
19. Drawbar.
20. Drawbar Pivot.

Superstructure.

1. Footplate.
2. Buffer Beam.
3. Valances.
4. Drag Beam.
5. Steps – 4.
6. 8BA Nuts.
7. Front Splasher Sides, L/H & R/H.
8. Front Splasher Tops, L/H & R/H.
9. Riveted Covers.
10. Sandbox Filler Caps.
11. Middle Splasher Sides.
12. Middle Splasher Tops.
13. Frame Pieces.
14. Mechanical Lubricator.
15. Cab Sides, L/H & R/H.
16. Cab Front.
17. Cab Floor Support.
18. Cab Floor.
19. Worm Cover.
20. Cab Window Beading – 4.
21. Middle Sandboxes, L/H & R/H.
22. Riveted Covers (6 rivets) – 4.
23. Rear Sandboxes, L/H & R/H.
24. Boiler.
25. Smokebox Inner.
26. Smokebox Front.
27. Smokebox Outer.
28. Firebox.
29. Firebox Front.
30. Boiler Bands – 5.
31. Handrail Wire, .45mm.
32. Handrail Knobs.
33. Small Front Frame Pieces.
34. Smokebox door Handles.

35. Upper Lamp Bracket.
36. Smokebox Door.
37. Clacks – 2.
38. Clack Pipes (.7mm wire).
39. Backhead.
40. Regulator Handle.
41. Cab Roof.
42. Rain Strips.
43. Cab Side Beading, L/H & R/H.
44. Fallplate.
45. Reversing Lever, 2 Parts.
46. Whistle.
47. Ross Pops.
48. Dome.
49. Anti – Vacuum Valves.
50. Chimney.
51. Front Lamp Brackets.
52. Buffers.
53. Vacuum Pipe.

Tender.

1. Chassis.
2. Axle Washers – 10.
3. Brake Gear Supports (.7mm wire).
4. Brake Hangers – 6.
5. Brake Blocks – 6.
6. Brake Pull Rods – 2.
7. Tiebars (.7mm wire).
8. Footplate.
9. Frames.
10. Buffer Beam.
11. Drag Beam.
12. Sides, L/H & R/H.
13. Back.
14. Lamp Brackets.
15. Handrails.
16. Coal Plate.
17. Bulkhead.
18. Coal Space Sides.
19. Floor Support.
20. Floor/Front Plate.
21. Side Plates – 2.
22. Side Beading, L/H & R/H.
23. Back Beading.
24. Coal Guard Beading – 2.
25. Step Plates – 2.
26. Narrow Steps – 4.
27. Wide Steps – 2 Long, 2 Medium.
28. Guard Irons, L/H & R/H.
29. Buffers.
30. Axleboxes – 6.
31. Drawbar Pin.
32. Fire Iron Rack.
33. Toolboxes, L/H & R/H.
34. Toolbox Lids, L/H & R/H.
35. Cupboard Doors, L/H & R/H.
36. Front Plates – 2.
37. Front Plate Beading, L/H & R/H.
38. Brake Column.
39. Tank Fillers – 2.
40. Vacuum Pipe.

P. D. K. MODELS.

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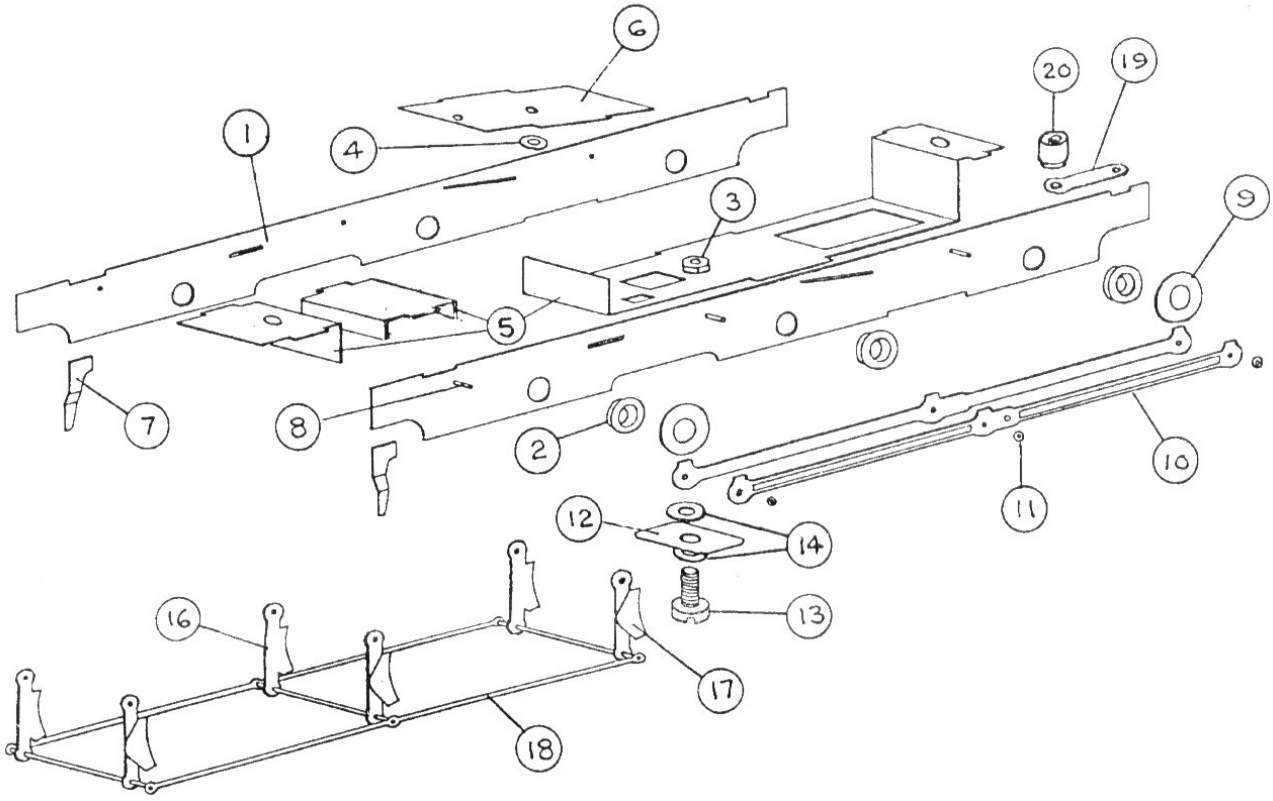
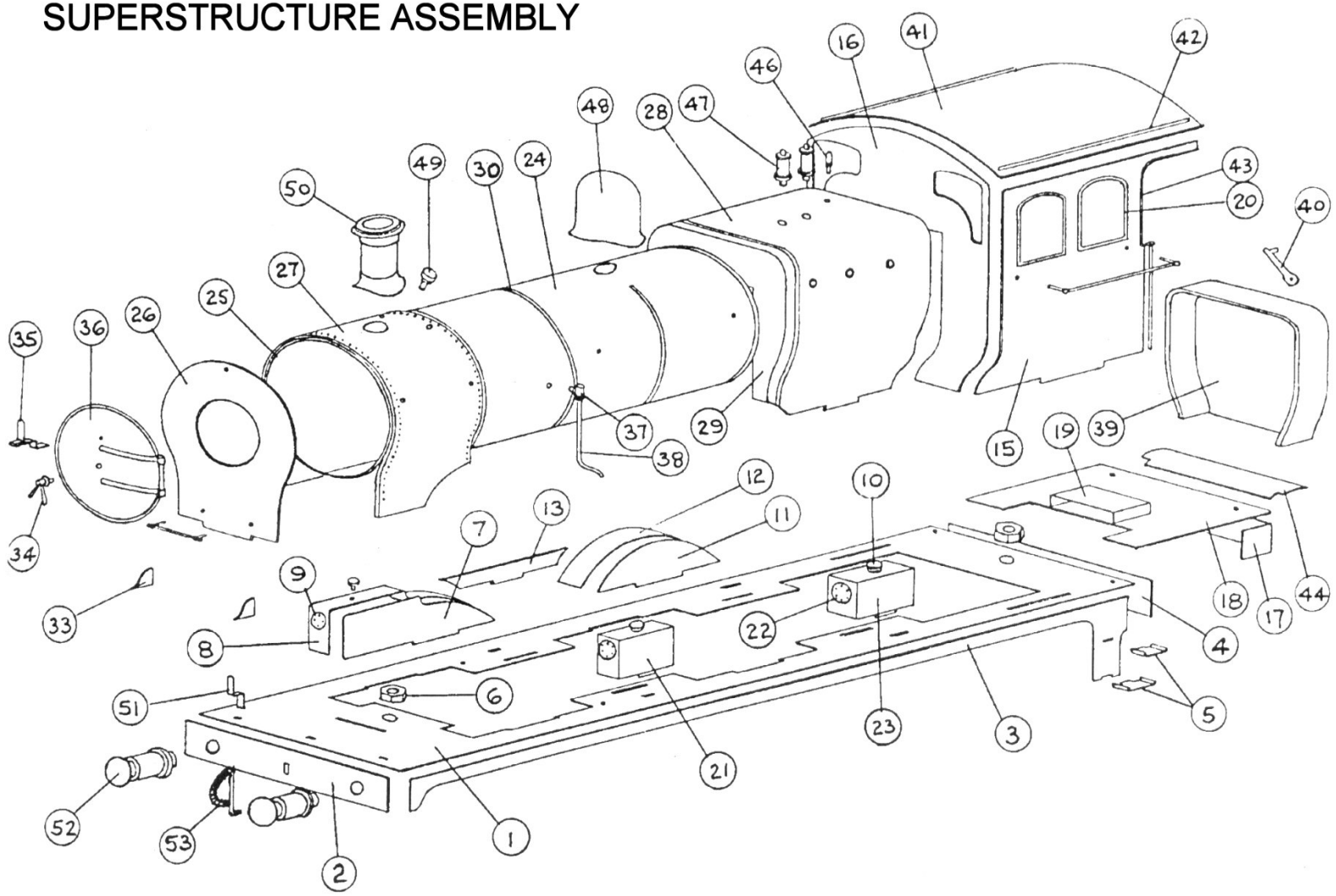
CHASSIS ASSEMBLY



SUPERSTRUCTURE ASSEMBLY



TENDER ASSEMBLY