

## **LNER J36 ASSEMBLY INSTRUCTIONS.**

### **CHASSIS ASSEMBLY.**

**Please note that the chassis etching has been modified and the following is guide only. If you have any queries please let me know.**

Take the frames (1) and solder in the axle bushes (2), making one frame **L.H.** and one **R.H.** 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 3rd spacer. If fitting a **D11** Motor bend down the side of the Motor mount (5) and solder the washers (6) under the Motor screw hole. Fix the plate into the chassis at its front end with a piece of the **22g** wire so that the plate pivots on the wire. Bend the front guard irons (7) to shape and solder to the frames. Solder pieces of the **22g** wire through the holes in each frame to form the brake gear supports (8). It may 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 sideplay on the front and rear axles. The centre wheels require sideplay to negotiate curves. Fit the pairs of coupling rod halves (10) together. Some of the J36 Class had plain rods, and some had fluted rods, and those in the kit can be used as either. Place the rods on the crankpins and check that the wheels revolve freely, and then fit the six small washers (11) to retain the rods on the crankpins. Put paper between the washers and the rods to avoid soldering the coupling rods to the crankpins, and then remove the paper after soldering.

Screw the collector tag (12), to the third chassis spacer using an **8BA** screw (13) and the two fibre washers (14). Check that the tag is not electrically live to the chassis, then form current collectors using some of the **26g** handrail wire (15) soldered to the collector tag.

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), making sure the brakes do not touch the wheel rims. Thread **22g** wire through the lower holes in the hangers so that the ends protrude beyond the faces of the wheels, place the brake rods (18) on these wire tie bars and solder them in place, trimming the ends of the wire flush with the rods after fixing.

If fitting a **D11** Motor screw this to the mounting plate, lower it into the chassis so that the gears mesh, and thread **22g** wire through the frame slots and the hole in the Motor mounting plate. Adjust the Motor angle until the gear mesh is correct, and then solder the ends of the wire to the frames. Fold up the etched sandboxes (19) and fix these to the frames behind the centre pair of wheels, using wire to form the sandpipes. The drawbar (20) and drawbar pivot (21) are secured with the same **8BA** screw (22) used to fix the rear end of the chassis to the body.

## **SUPERSTRUCTURE ASSEMBLY.**

Take the footplate (1), lay it on a flat surface and solder the buffer beam (2) to it, slightly from the footplate edge. Next solder the valances (3) to the footplate, 0.5mm in from each 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 hole at the front of the footplate, and another under the hole at the rear to fix the chassis to.

Take the smokebox front (7) and solder into the slot in the footplate. Bend the front splashers (8) along the etched fold line and solder them to the footplate, then form the front splasher tops (9) to match the splashers and fix to them. Fix the middle splasher sides (10) to the footplate, curve their top pieces to shape and fix in place. Take the cab sides (11) and solder to the footplate, then curve the bottom ends of the cab front, and fix to the sides (It fits between the sides, not to the front edges). Fit the cab front window rims (13) in place.

Turn now to the boiler, roll the boiler/firebox unit (14) bend out the lower part of the firebox sides, and solder up the boiler seam. The bottom of the firebox needs to be flared in slightly. Next roll the smokebox inner (15) and outer (16), slide these onto the boiler unit and fix in place so that they are flush with the leading edge of the boiler unit. Then fit the boiler bands (17). The assembled unit can now be fitted to the footplate, slotting the tags on the bottom of the firebox into the slots between the middle splashers and the cab. The boiler fittings can now be fixed in place starting with the whistle (18), using a short piece of the handrail wire to form the whistle pipe (19) to the cab, followed by the safety valves (20), dome (21) and chimney (22). Next form the handrail (23) and fit to the boiler using the handrail knobs (24), then fix the washout plugs (25) to the firebox. Now fix the cylinder front cover (26) and buffers (27).

Bend the lamp brackets to shape (28) and fit three into the slots in the footplate front, and solder the fourth to the top of the smokebox. Take the smokebox door handles (29), fix into the hole in the smokebox door (30), and then fit the door to the smokebox front. Fit the sandbox filler caps (31) to the front splasher tops, and the reversing lever (32) to the **L.H.** side of the Loco. Some of the Class had Westinghouse brakes, and if modelling one of these the pump (33) should be fitted on the **R.H.** side next to the firebox. Some had a steam pipe along the **L.H.** boiler side and this should be made from the **22g** wire (34) if required.

Now turn back to the cab, take the cab floor support (35), bend the ends at right angles, and fit between the cab sides with its back face only slightly in from the rear edge of the footplate. Take the cab floor (36), bend along the fold lines to clear the Romford worm and gear if using a **D11** Motor, or cut along the first fold line if using a Portescap Motor, then fit in place. Curve the fall plate (37) slightly, make a hinge from the wire and split pins provided, and fit the fall plate to the cab floor. Fix the cab side window beading (38) in place, followed by the cab side beading (39), then make the cab handrails from the handrail wire. Fit the regulator handle (40) to the backhead (41), and then fix the backhead into the cab. Note that the backhead can only be fitted if using a **D11** Motor - the Portescap Motor protrudes too far into the cab. Next curve the cab roof (42) to match the top of the cab front, and bend up the edges before fitting to the cab. Fit the curved strips (43) to the front and back edges of the roof, then curve the roof vent (44) and fix in place.

Lastly fit the vacuum pipe (45) to the front buffer beam if required (only some J36's were vacuum brake fitted).

## **TENDER ASSEMBLY.**

Take the chassis (1) and bend the sides at 90 degrees to the centre. Solder an axle washer (2) over each axle hole and then clean out the holes with a **No 47/2.0mm** drill. Solder **22g** 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 sideplay, but leaving a small amount of sideplay 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.** and then solder the hangers to the wire support making sure the brakes do not touch the wheels. Take the pull rods (6) and thread **22g** wire through these and the holes in the lower ends 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) and solder the buffer beam (9) to it, 0.5mm in from the rear edge of the footplate. Next fit the valances (10) 0.5mm in from each edge of the footplate, then solder the drag beam (11) in place. Bend up the ends of the four steps (12) and fit these into the slots in the valance. Take the frames (13) and solder into the slots in the footplate, then solder an 8BA nut (14) over each of the two fixing holes.

Now take the Tender body (15) and bend the corners at **2mm** radius. This must be done accurately and squarely to ensure the correct fit of the body to the footplate, and also to ensure the accurate fit of the other body parts. The tops of the sides and back should be flared outwards along the etched fold lines at 60 degrees to the horizontal. The front corners of the sides must also be curved at **2mm** radius. Once the Tender body is properly formed it can then be slotted onto the footplate and soldered in place.

Take the front plate (16) next and fix into the slot in the footplate and between, and level with the front edges of the body. Bend the floor support (17) and fix to the footplate, slightly back from the footplate edge, then slot the floor (18) into the front plate and fix to the floor support. Bend three of the four lamp brackets (19) and fix into the slots in the tender back, then make the handrail for the back of the tender and fix in place. Bend the coal plate (20) next and fit into the body. The main section of this should be level with the fold lines for the flared body top pieces, and the front edge should be level with the bottom edge of the coal hole in the front plate.

Now take the lower coping strip (21) and starting at one end of the front of the body, fix the strip all the way round the body with its top edge level with the bend of the flared coping. Next take one of the two overlays for the flared coping (22), curve the front end and the corner and fit to the body, then repeat with the other overlay. The two pieces join in the middle of the tender back. Now take the coal rails (23) and curve the corners to match the top of the tender, and then bend the upright at 60 degrees to fit into the flared top. When satisfied with the fit solder to the body, followed by the backing plates (24). Then solder the coal space back (25) into the slot in the coal plate. Next take the two side plates (26) and fix the beading (27) to the edges, then make the handrail for each from some of the **26g** wire (28), before fitting the side plates into the slots in the footplate either side of the floor. Bend the toolbox bodies (29) and toolbox tops (30), fit together and fit in place on the tender. Bend the locker body (31), fix the coal space, and fix its top (32) to it, then fix the locker door (33) to the front of the front plate. Fix the brake column (34) to the coal plate, on top of the **R.H.** toolbox and put the drawbar pin (35) through the hole in the

footplate behind the drag beam and solder in place. Fix the tank filler (36) in the hole in the coal plate, and the axleboxes (37) in the holes in the frames. Fit the vacuum pipe (38) if required, and the buffers (39).

### **J36 CHASSIS PARTS LIST**

1. Frames - 2.
2. Axle bushes - 6.
3. Frame spacers - 4.
4. 8BA nuts -3.
- 5.
- 6.
- 7.
8. Brake gear supports, 22g wire.
9. Axle washers - 4.
10. Coupling rods.
- 11.
- 12.
13. 8BA screws - 3.
- 15.
16. Brake hangers - 6.
17. Brake blocks - 6.
18. Brake rods - 2.
19. Sandboxes **L.H. & R.H.**
20. Drawbar.
21. Drawbar pivot.
- 22.

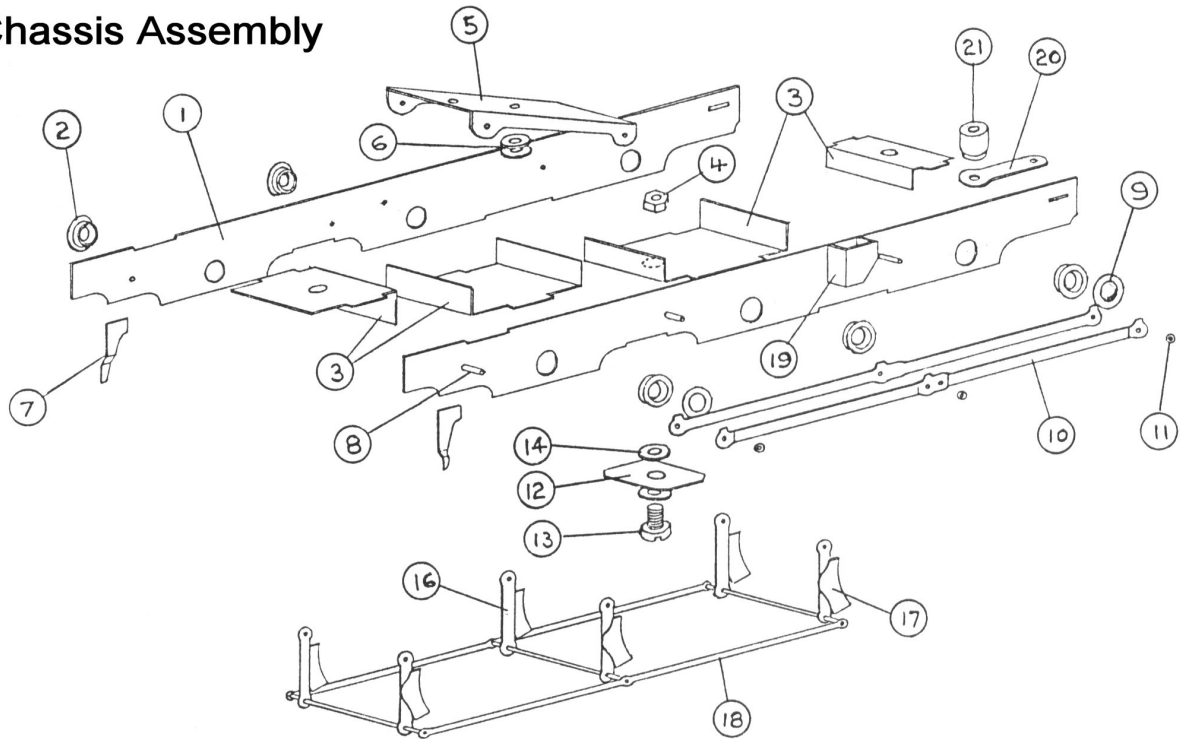
### **J36 SUPERSTRUCTURE PARTS LIST.**

- |                                               |                                  |
|-----------------------------------------------|----------------------------------|
| 1. Footplate.                                 | 24. Handrail knobs -10.          |
| 2. Buffer beam.                               | 25. Washout plugs - 4.           |
| 3. Valances - 2.                              | 26. Cylinder cover.              |
| 4. Drag beam.                                 | 27. Buffers - 2.                 |
| 5. Steps - 2 long, 2 medium.                  | 28. Lamp brackets - 4.           |
| 6. 8BA nuts - 2.                              | 29. Smokebox door handles,       |
| 7. Smokebox front.                            | 30. Smokebox door.               |
| 8. Front splashers - <b>L.H. &amp; R.H.</b>   | 31. Sandbox filler caps - 2.     |
| 9. Front splasher tops <b>L.H. &amp; R.H.</b> | 32. Reversing lever.             |
| 10. Middle splasher tops and sides.           | 33. Westinghouse pump.           |
| 11. Cab sides <b>L.H. &amp; R.H.</b>          | 34. Steam pipe, 22g wire.        |
| 12. Cab front.                                | 35. Cab floor support.           |
| 13. Cab front window rims - 2.                | 36. Cab floor.                   |
| 14. Boiler - firebox.                         | 37. Fall plate.                  |
| 15. Smokebox inner.                           | 38. Cab side window beading - 2. |
| 16. Smokebox outer.                           | 39. Cab side beading - 2.        |
| 17. Boiler bands - 4.                         | 40. Regulator handle.            |
| 18. Whistle.                                  | 41. Backhead.                    |
| 19. Whistle pipe, 26g wire.                   | 42. Cab roof.                    |
| 20. Safety valves.                            | 43. Cab roof edging - 2.         |
| 21. Dome.                                     | 44. Cab roof vent.               |
| 22. Chimney.                                  | 45. Vacuum pipe.                 |
| 23. Handrail wire, 26g                        |                                  |

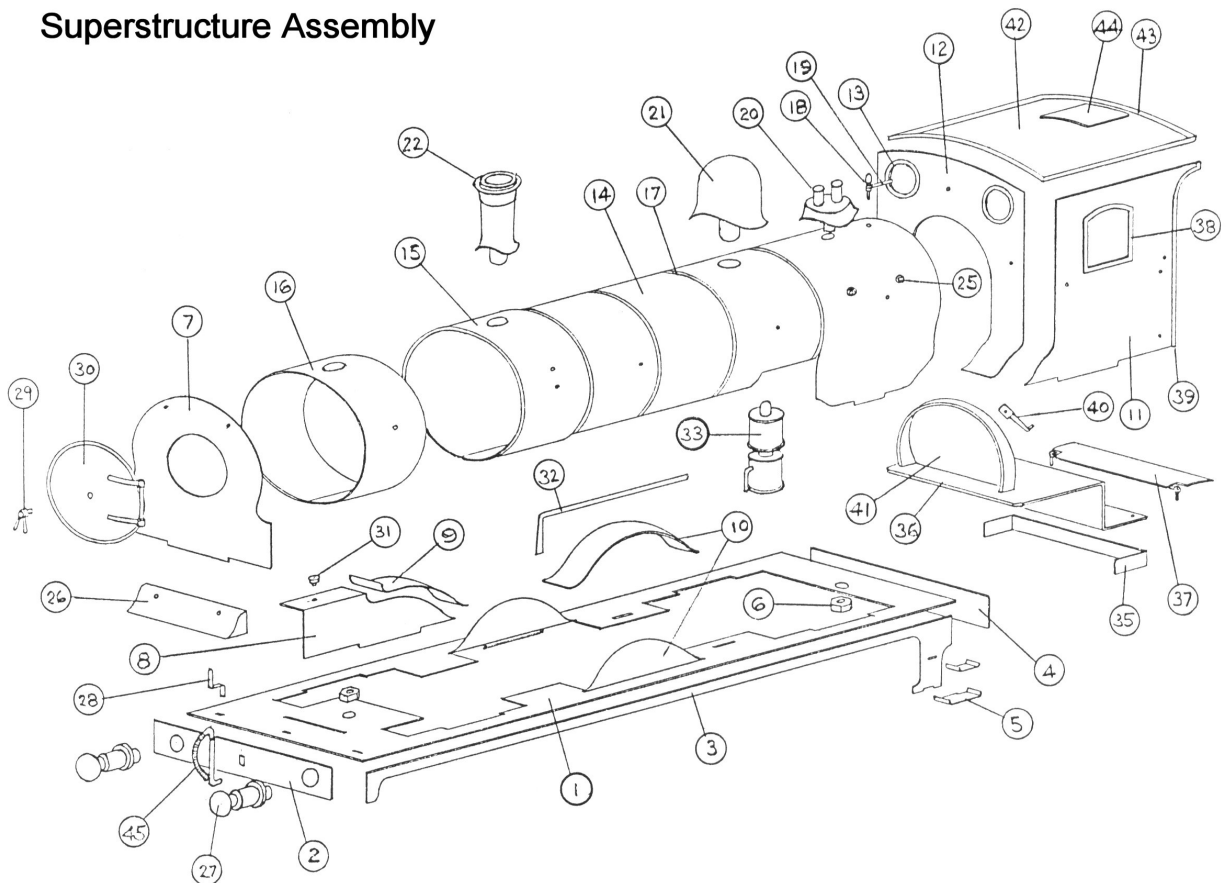
### **J36 TENDER PARTS LIST.**

- |                                   |                                          |
|-----------------------------------|------------------------------------------|
| 1. Chassis.                       | 21. Lower coping strip.                  |
| 2. Axle washers -16.              | 22. Coping strips <b>L.H. &amp; R.H.</b> |
| 3. Brake gear supports, 22g wire. | 23. Coal rails.                          |
| 4. Brake hangers - 6.             | 24. Coal rail backing plates - 2.        |
| 5. Brake blocks - 6.              | 25. Coal space back.                     |
| 6. Brake rods - 2.                | 26. Side plates, <b>L.H. &amp; R.H.</b>  |
| 7. Tie bars, 22g wire.            | 27. Side plate beading - 2.              |
| 8. Footplate.                     | 28. Handrails, 26g wire.                 |
| 9. Buffer beam.                   | 29. Toolbox bodies - 2.                  |
| 10. Valances - 2.                 | 30. Toolbox tops - 2.                    |
| 11. Drag beam.                    | 31. Locker body.                         |
| 12. Steps - 2 long, 2 medium.     | 32. Locker top.                          |
| 13. Frames - 2.                   | 33. Locker door.                         |
| 14. 8BA nuts - 2.                 | 34. Brake column.                        |
| 15. Tender body.                  | 35. Drawbar pin, 1/16" dia. brass.       |
| 16. Front plate.                  | 36. Tank filler.                         |
| 17. Floor support.                | 37. Axleboxes - 6.                       |
| 18. Floor.                        | 38. Vacuum pipe.                         |
| 19. Lamp brackets - 4.            | 39. Buffers - 2.                         |
| 20. Coal plate.                   |                                          |

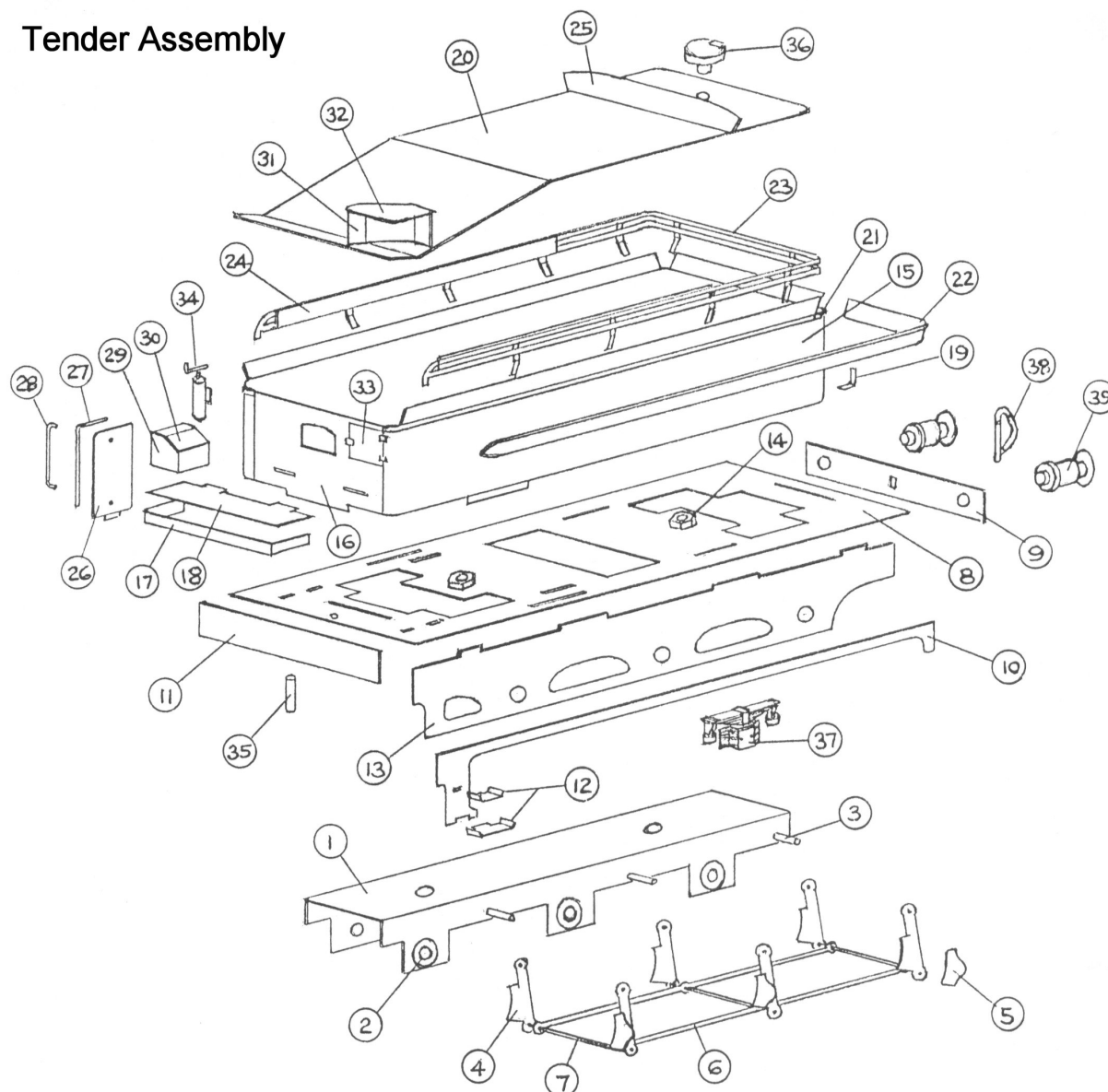
## Chassis Assembly



## Superstructure Assembly



## Tender Assembly



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