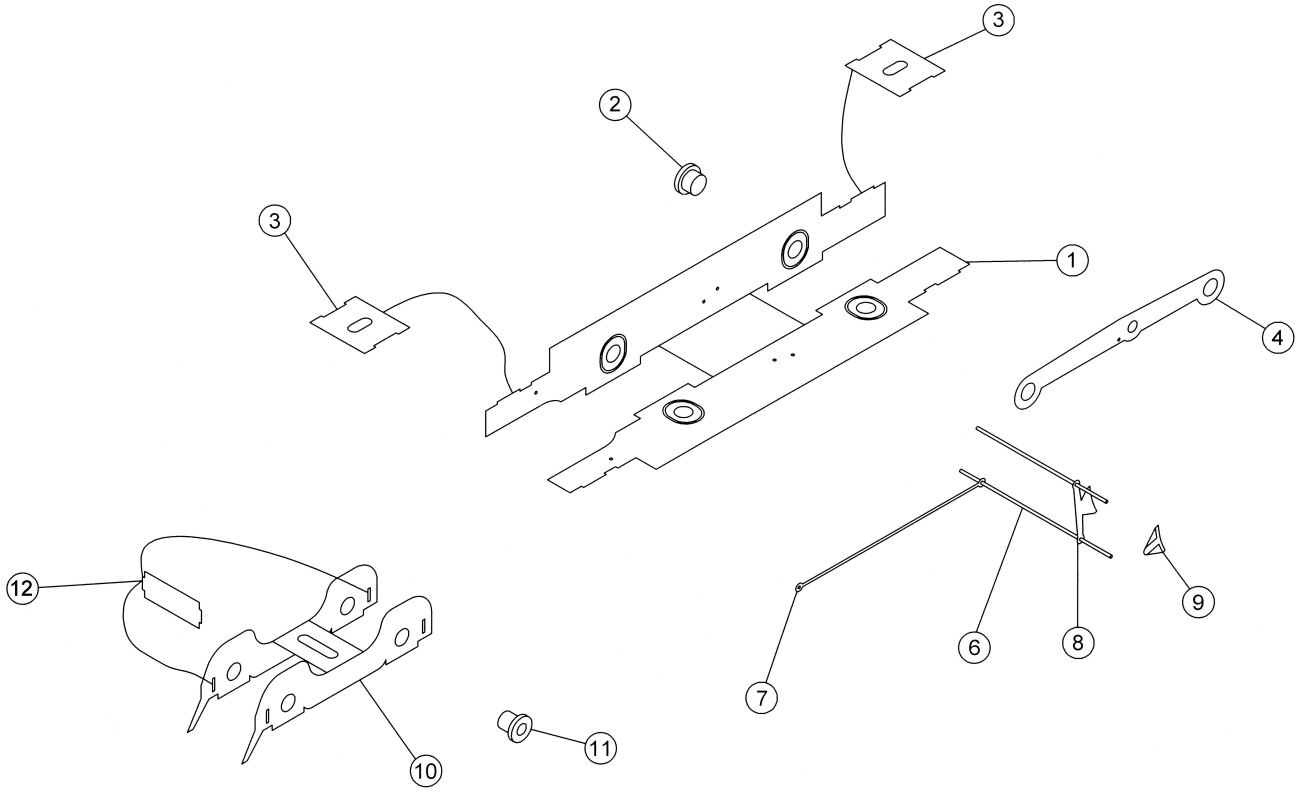
LNER/BR D49/4 THOMPSON REBUILD *'THE MORPETH'* INSTRUCTIONS

CHASSIS ASSEMBLY

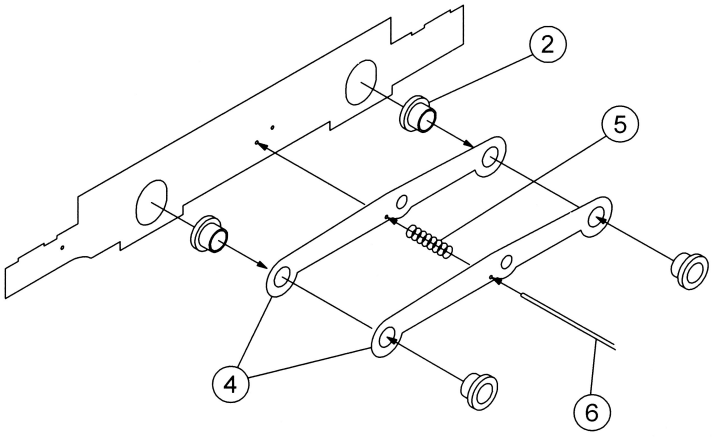
The chassis can be built rigid or compensated so decide now which one you are going to make. If building a compensated chassis remove the sections from the front and rear axle holes.

Take the frames (1) and solder the axle bearings (2) into the frames. Fold the chassis up and solder the front and rear frame spacers (3) into their recesses. Solder the four 2mm bearings (11) into the axle holes in the bogie (10). Fold the bogie sides down and solder the front and rear spacers (12) into the slots.

Fig. 1. Chassis Assembly.



COMPENSATION



Beam compensation requires a fixed point, so that when the loco is on the track it remains level. With this chassis the fixed point is the bogie. Turn to the compensating mechanism itself.

Solder the 1/8th axle bearings (2) into the compensating beams (4). The compensating spindle should be cut from the brass wire (6). The beams are held apart by the compensation spring (5). It is very important that no parts of this mechanism are soldered in a fixed position other than the spindle to the

mainframe. Both beams must move independently of each other. The assembly of the beams is otherwise very simple. Make sure you fit the beams so that the large hole is over the rear brake pilot hole. Fit the wheels (to the bogie and chassis) so you can test the compensating mechanism. Fit the bogie spacer (13) and then the bogie and when satisfied that all works O.K. remove the wheels and the bogie and put them to one side.

BRAKE ASSEMBLY

Solder two lengths of the brass wire (6) into the holes in the chassis to form the brake mountings (take care not to get solder on the compensation mechanism). Take the brake hangers (8) and the brake block overlays (9) and solder the overlays onto the hangers. Solder the assembled brakes to the wire **2mm** from the frames. Pass more brass wire through the bottom of the brakes and then through the brake rods (7) and solder the joints.

BODY ASSEMBLY

Take the running plate (1) and fit the valances (2 & 3) into the recesses under the running plate. Fit the buffer beam (4) into the recess at the front of the running plate and the rear drag beam (5) into the recess at the rear. Fit the lower front frame sections (6 & 7) under the running plate. Fold the splashers up. Leave the valance supports in position until the boiler has been fitted.

Take the cab etching (8) and fold the cab sides at 90° to the cab front. Check the fit of this into the slots and when satisfied with the fit solder it in place. Curve the splasher tops (15 & 16) and solder them onto the splasher sides.

Take the frame tops (17 or 18). Solder them into the slots in the running plate. Solder three **8BA** screws (27) into the holes in the running plate.

Form the cab floor support (11) and fit between the cab sides, with a 1mm gap between it and the rear of the running plate. Solder the cab floor (12) on top of the support. Form the interior cab splashers (13 & 14) and solder them to the cab floor.

Now turn to the boiler (19). Solder the seam together. Form the bottom of the smokebox to match the profile of the smokebox front. Solder the smokebox front (20) to the boiler, the tabs on the boiler fit into the recesses on the smokebox front. Fit the boiler bands (28) now [see Fig. 2a.]. Now check the fit of the boiler into the slots in the cab front. Tack it in place and when satisfied that all is level solder both boiler and firebox firmly in place. Curve the cylinder cover (24), check the fit between the frames and solder in place.

Solder the cab side overlays (9 & 10) in place. Form the cab roof (21) and tack it in place. The front of the roof overhangs the cab front and the sides, when all is square solder around the seams. Solder the rain strips (28) in place. Solder the roof vent (23) and the riveted plate (22) in place.

Now remove the valance supports.

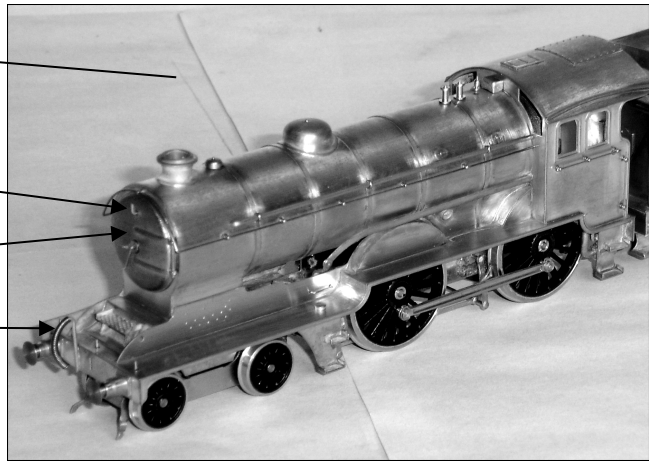
Fold the top of the cab steps (29) and running plate steps (30) over. Fold the bottom step up as well and run some solder into the fold for strength. Solder them in place under the running plate and against the valance. Solder the small steps into the slots.

Solder the chimney (31), dome (32) and anti vacuum valve (33) in place.

Glue the smokebox door (34) into the smokebox front

Drill out for the smokebox door handle (35) and lamp brackets (36) and fit in place.

Solder the vacuum pipe (37) in place.



Solder together the two parts of the reversing bar (38 & 39). Form the front end into an 'S' shape so that it fits behind the frames just in front of the splasher. Solder it in position when happy with the shape.

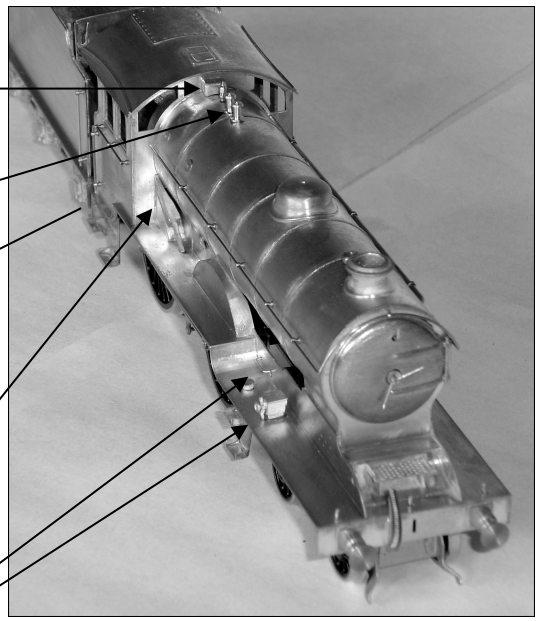
Glue the whistle manifold cover (40) centrally at the front of the cab.

The whistle (41) and safety valves (42) can be fitted after painting.

Consult Fig. 2a for the positions of the upper washout plugs (43), lower washout plugs (44) and ejector pipe hole.

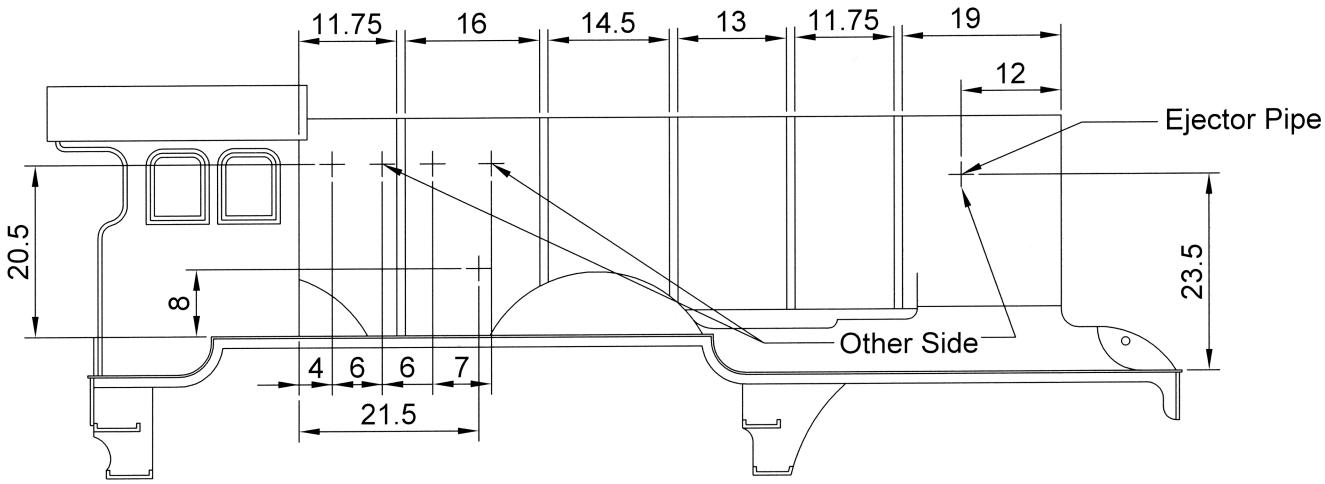
Take the rocking grate rod cover (45), check the fit onto the R/H front splasher and adjust as necessary. The rod that protrudes from it will need to be replaced with a piece of brass rod.

Fit the sandbox fillers (46) and the handrails behind the fillers.



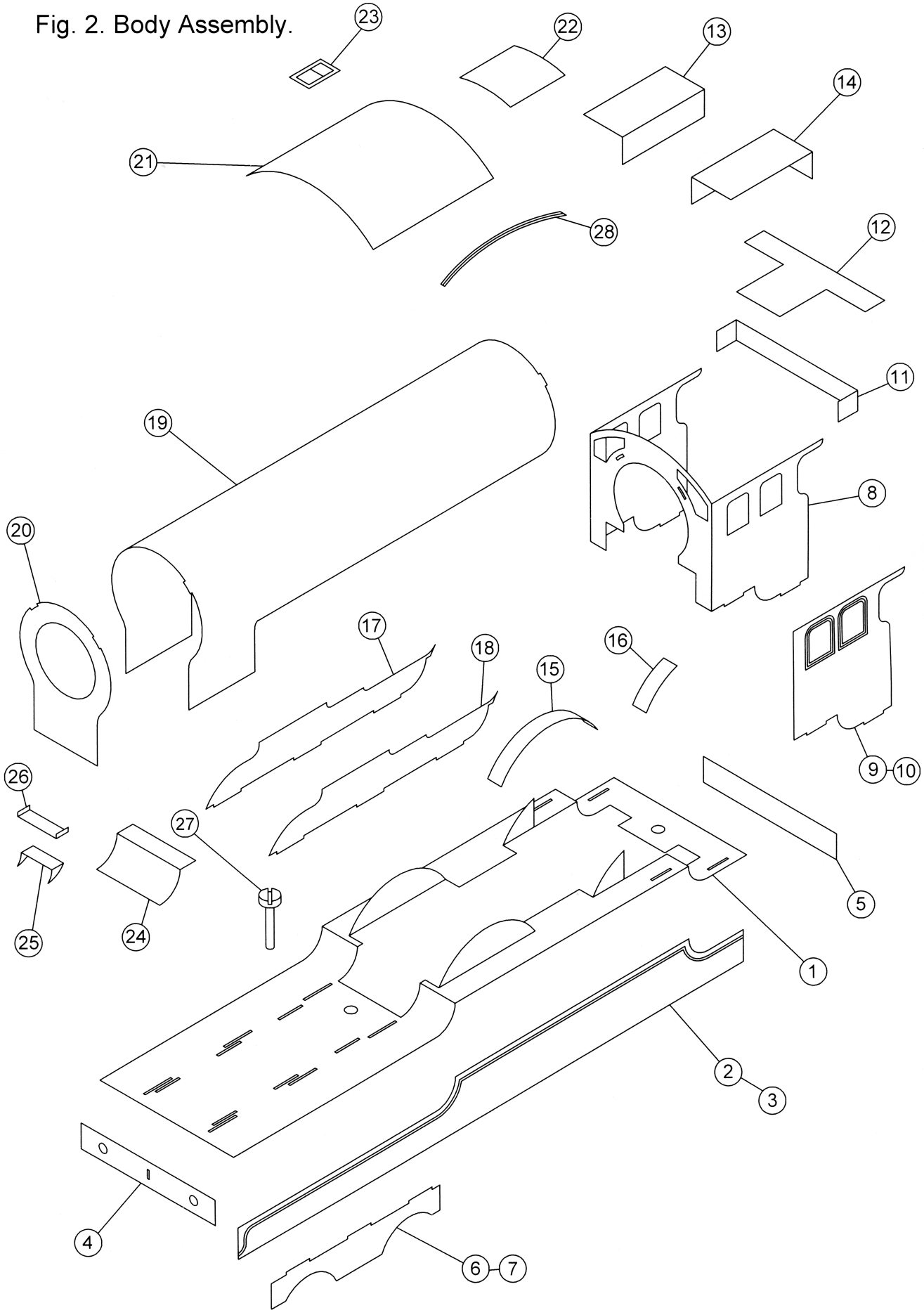
Glue the mechanical lubricator (47) in place. Solder the buffer shanks (48) in place. Fit the handrails to the boiler and cab sides.

Fig. 2a. Boiler Band Positions.



Boiler Band And Washout Plug Positions

Fig. 2. Body Assembly.



LNER 4200 GALLON GROUP STANDARD TENDER

This tender kit will make either the **'Low front'** type built **1928 - 37** or the **'High front'** type built **1937 - 52**. The low front type is suitable for **B17's, D49 (Hunts), O2's** and **V2's**. The high front type is suitable for **V2's** and **A2/1's**. **'The Morpeth'** ran with the low front type.

As you are doing the 'Low front' type, follow Figs 1, 2, 3 & 4. Ignore any reference to the 'High front' type.

Fig .1.

Cut out the parts shown (1 to 8 inclusive) and file off all the tabs. Solder the frames (2) [only one shown) into the slots in the base plate (1), (The larger oval cut out goes to the front). With these in place solder the drag beam (3) and the buffer beam (4) against the appropriate end of the frames. Solder the valences (5) into the recessed line approx **0.5mm** in from the edge of the base plate. Solder the three **8BA** screws into the holes down the middle of the base plate. Fit the frame side steps (11 & 12).

Open out the holes in the wheel carrier (8) to take the **2mm** inside bearings (7) and solder all six in place. Fold the sides and ends up at **90°** (with the fold lines inside) to form a box section. Solder around the seams.

Solder three lengths (**25mm** approx) of brass wire through the holes in the sides of the carrier. Attach the brake hangers and blocks (9) (detail side facing out) to the wire about **2mm** from the sides, Pass brass wire through the bottom hole in the brakes and then through the two brake rods (10) and then through the opposite brakes. Solder the wire to the brakes and then solder the rodding in line with the frames. Paint the wheel carrier before fitting the wheels.

Fig.2.

Solder the coal plate support (13) into its slot. Solder the tender rear (14) into the rear slots with the step holes on the L/H side looking from the back. Make sure the lamp bracket holes remain clear,

Remove the front top section on the tender sides (15). Note that you have to drill one of the top handrail holes to suit your period now (see diagram). Solder the sides in place. They butt up to the tender rear.

With the fold lines on the inside fold down the front of the coal plate (16), Fold the coal space (17) into the shape shown and solder it under the coal plate. Solder this unit into the second set of slots at the front and all around the edges.

Fit the front bulkhead (18) with the fire iron cut out on the right. Fit either the early rear bulkhead (19) for **LNER/early BR** or the later rear bulkhead (20) for **later BR**. Fit the side strengthening plates (21) and the rear plate (22) level with the top edges of the sides and rear. The beading is included on these. Note that not all tenders had these plates, so if doing a plain sided tender the beading will have to be fabricated out of wire,

Solder together the front **'V'** bulkhead (23) and the infill piece (24). Fit this **'V'** bulkhead into the first set of slots. Fit the fire iron holders (25).

Fig. 3.

Solder either the closed coal door (27) or the open one (28) into place. Glue the two toolboxes (26) in place on the front of the coal plate. Glue the brake and water standards (29) on either side of the V bulkhead.

Solder the rear steps (30), the lamp brackets (31) and the vacuum pipe (32) in place. Glue the two halves of the water dome (33) either side of the rear bulkhead. Glue the vacuum tank (34) into the two holes to the left of the filler hole. Fashion some suitable scrap fret into loops to make up the tank securing straps. These will locate into the slots either side of the tank. Fit the water filler (35) and the buffer shanks (36). Do not fit the buffer heads until after painting.

Fig. 4.

Solder the coal plate support (13) into its slot. Solder the tender rear (14) into its slots with the step holes on the L/H side looking from the back. Make sure the lamp bracket holes at the bottom remain clear.

Take the sides (15) (the front curve section ~ in place. Drill out the top handrail holes only on this tender. Solder the sides into their slots. They butt up to the tender rear.

With the fold lines inside fold the front bulkhead (39) into the shape shown. Tack this into place in the second set of slots. Check the fit of the coal plate (38) in the slots in the bulkhead. When the bulkhead is positioned correctly, remove the coal plate and solder around the seams.

Cut the front square sections out of the coal space (17) and fold it as shown. Solder it under the coal plate so that the front part will protrude under the bulkhead. Solder this unit in place.

Fit either the early rear bulkhead (19) for **LNER/early BR** or the later rear bulkhead (20) for **later BR**.

Fit the side strengthening plates (40) and the rear plate (22) level with the top edges of the sides and rear, Note that all these tenders appear to have these plates. Solder together the front **'V'** bulkhead (41) and the infill piece (24). Fit this bulkhead into first set of slots.

Solder in place either the grills (43 & 45) or the doors (44 & 46). The doors were fitted after November 1940. Solder in place the front bulkhead supports (48) and the two locker doors (47). The brake and water standards (29) can now be glued in place.

FIG. 1. Assembling the tender chassis/frames.

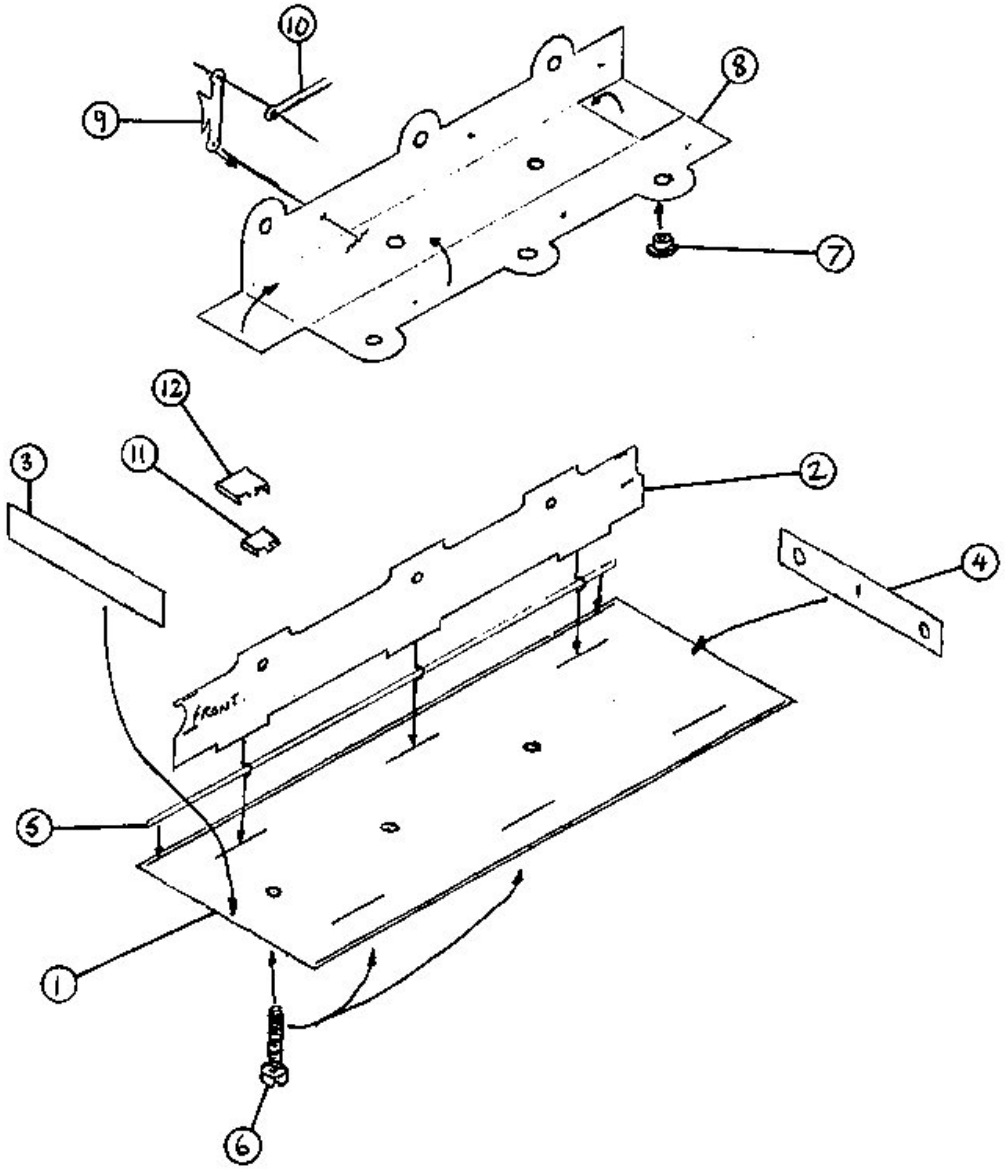


FIG. 2. Main tank and upper body construction. (Low front type. Built 1928 - 37).

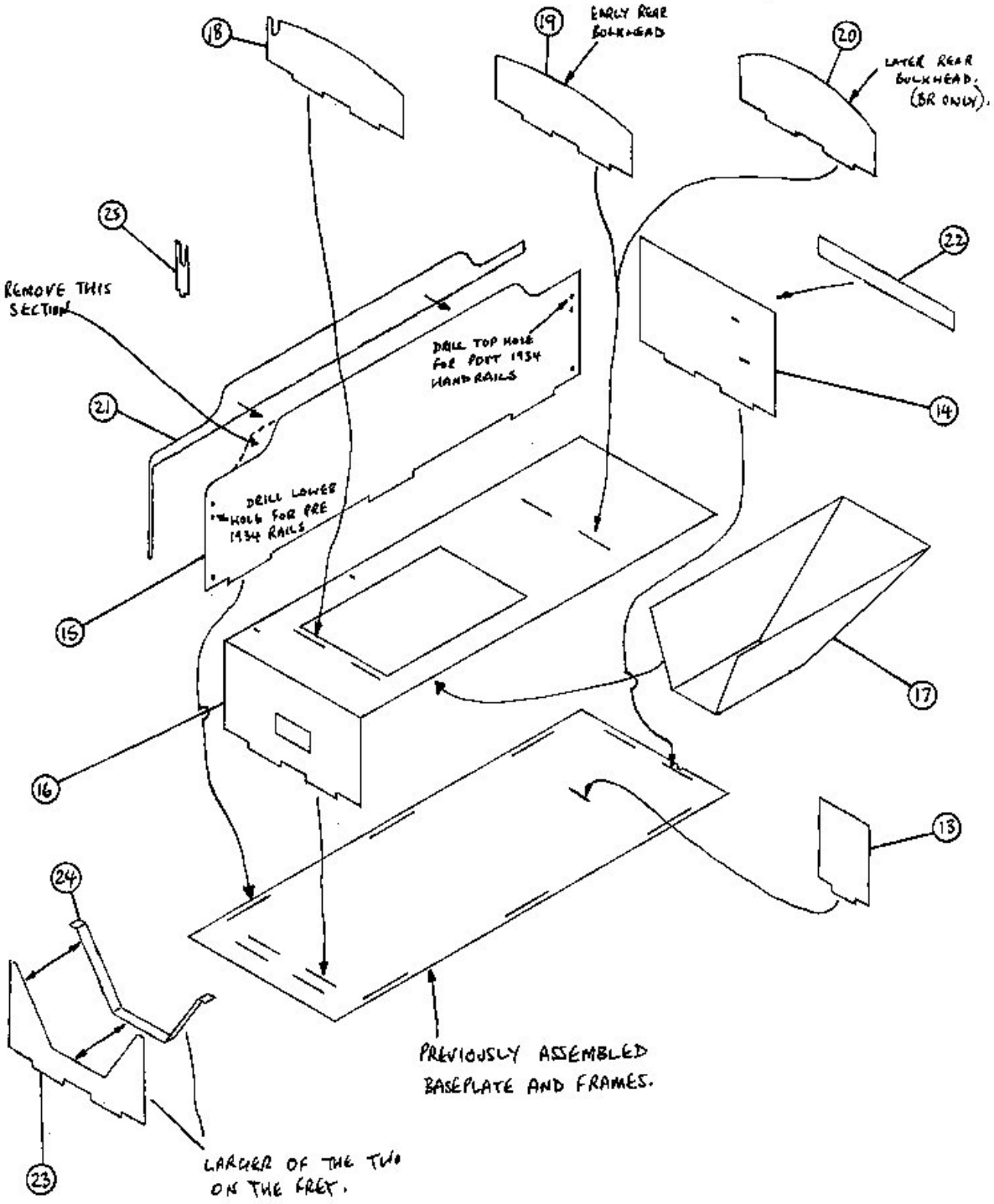


FIG. 3. Front end detail for low front tender.

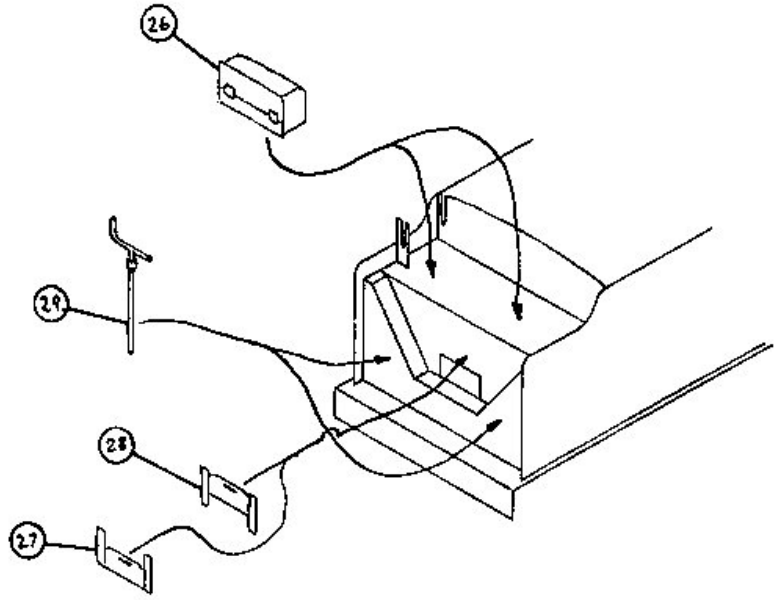
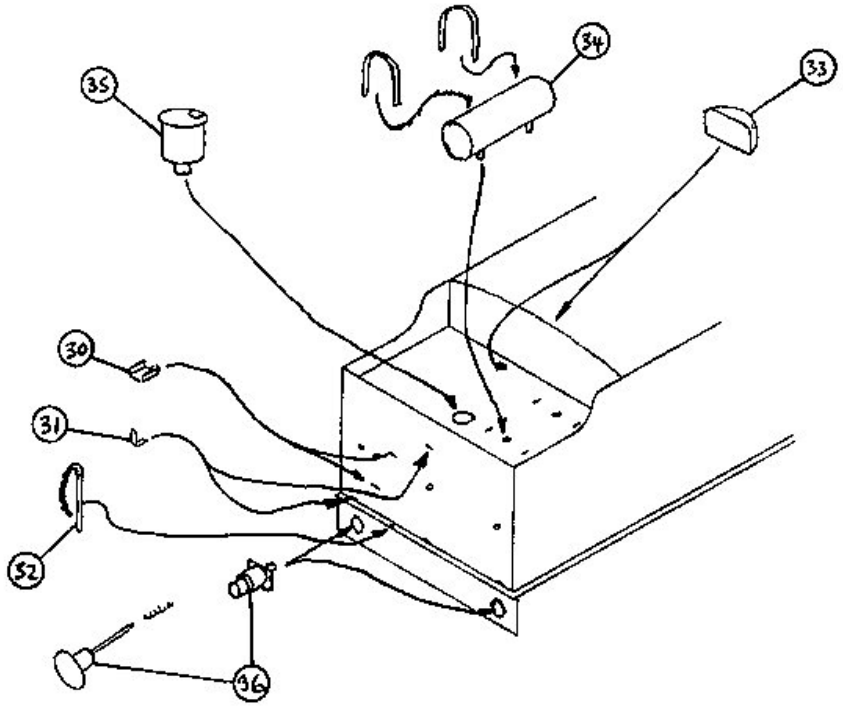


FIG. 4. Rear end detail for both low and high front tenders.



CHASSIS PARTS LIST

1. Frames.
2. Axle Bearings.
3. Frame Spacers.
4. Compensating Beams.
5. Compensation Spring.
6. Brass Wire.
7. Brake Rods.
8. Brake Hangers.
9. Brake Blocks.
10. Bogie.
11. 2mm Bearings.
12. Bogie Spacers.
13. Bogie Pivot.

BODY PARTS LIST

1. Running plate.
2. R/H Valance.
3. L/H Valance.
4. Buffer Beam.
5. Drag Beam.
6. R/H Lower Front Frames.
7. L/H Lower Front Frames.
8. Cab Front/Sides.
9. R/H Cabside Overlay.
10. L/H Cabside Overlay.
11. Cab Floor Support.
12. Cab Floor.
13. R/H Cab Splasher.
14. L/H Cab Splasher.
15. Front Splasher Tops.
16. Rear Splasher Tops.
17. R/H Upper Frames.
18. L/H Upper Frames.
19. Boiler.
20. Smokebox Front.
21. Cab Roof.
22. Cab Roof Riveted Plate.
23. Cab Roof Vent.
24. Cylinder Cover.
25. Front Step Lower Section.
26. Front Step Upper Section.
27. 8BA Screws & Nuts.
28. Rain Strips.
29. Cab Steps.
30. Running Plate Steps.
31. Chimney.
32. Dome.
33. Anti Vacuum Valve.
34. Smokebox Door.
35. Smokebox Door Handle.
36. Lamp Brackets.
37. Vacuum Pipe.
38. Reversing Bar.
39. Reversing Bar Overlay.
40. Whistle Manifold cover.
41. Whistle.
42. Safety Valves.
43. Upper washout Plugs.
44. Lower washout Plugs.
45. Rocking Grate Rod Cover.
46. Sandbox Fillers.
47. Mechanical Lubricator.
48. Buffers.
49. Regulator Handle.
50. Backhead.
51. Brass Wire.
52. Handrail Knobs.
53. Ejector Pipe (form from thicker wire).
54. Split Pins.
55. Boiler Bands.
56. Brass Rod.
57. .
58. .
59. .

TENDER PARTS LIST

1. Baseplate.
2. Mainframes.
3. Dragbeam.
4. Bufferbeam.
5. Valences.
6. 8BA nuts and screws.
7. 2mm bearings.
8. Wheel carrier.
9. Brakes.
10. Brake rodding.
11. Small side step.
12. Large side step.
13. Coal plate support.
14. Tender rear.
15. Tender sides.
16. Coal plate (low front).
17. Coal space.
18. Front bulkhead.
19. Early rear bulkhead.
20. Later rear bulkhead.
21. Side strengthening plates (low front).
22. Rear strengthening plate.
23. V bulkhead (low front).
24. Infill piece (low front).
25. Fire iron holders.
26. Toolboxes.
27. Coal door (closed).
28. Coal door (open).
29. Brake and water standards.
30. Rear steps.
31. Lamp brackets.
32. Vacuum pipe.
33. Water dome (two parts).
34. Vacuum tank.
35. Water filler.
36. Sprung buffers.
37. Handrail knobs.
38. Coal plate (high front).
39. Front bulkhead (high front).
40. Side strengthening plates (high front).
41. V bulkhead (high front).
42. Infill piece (high front).
43. Upper door.
44. Upper grill.
45. Lower grill.
46. Lower door.
47. Locker doors.
48. Front bulkhead supports.
49. Brass wire.

PDK MODELS.

HILLTOP BUNGALOW.
CARNKIE
HELSTON
TR13 0DZ

07732213251

www.pdkmodels.co.uk

pdkmodels@hotmail.co.uk