

## **SR/BR Maunsell L1 4-4-0 INSTRUCTIONS.**

### **Fig. 1.**

Cut out the main running plate (1) and the running plate valences (2). Note that all the fold lines and locating lines should be on the underside of the running plate. Using a piece of 4 or 5mm bar or dowelling and using the running plate valences as a guide form the curves in the running plate. If you take plenty of time and bend a little at a time you should have no problem, but you must take care not to damage the fold lines for the running plate right angle bends. When satisfied with the curves fold the front and rear down. The rear drag beam can also be bent down. Solder the valences in place making any remaining adjustments. The bufferbeam (3) and overlay (4) can be soldered in place. Check that the bufferbeam lines up with the rear drag beam and adjust as necessary. At this point solder two of the 8BA screws into the front and rear holes in the top of the running plate. Solder the smokebox supports (8) and the front frame tops (7) into their slots. There will be a gap between the side of the frame tops and the smokebox supports. This is for the outer smokebox wrapper (13) to locate into. The splasher sides can now be folded up and the front ones soldered to the running plate. Cut out the cab front (5) and the cab sides (6) [also the cab side overlays (14 & 15). not shown]. Fit the cab front into its slots across the rear splashers and the cab sides into their slots. Make sure all is square. When happy fit the riveted overlays in place.

Next clean up the preformed firebox (9) and check that it fits into the slots in the running plate and the top of the cab front. Some adjustment may be necessary, but a good fit here is not difficult to achieve. When the firebox is in place fit the firebox front (10) using low melt solder,

Take the pre - rolled boiler (11), inner smokebox overlay (12) and outer overlay (13) and clean them up ready for assembly. Solder along the boiler seam, preferably on the inside. Once the boiler is firmly joined make sure it is perfectly round. Fit the inner smokebox overlay flush with the boiler front and so that it lines up with the boiler handrail holes. Repeat with the outer riveted overlay but make sure that the wings that form the saddle sides are free to slide down between the frame tops and the smokebox supports. Refer to Fig. 1a. for dimensions and solder the boiler bands (16) in place on both boiler and firebox.

The boiler/smokebox can now be fitted. Slide the saddle sides down between the frame tops and the smokebox supports and locate the boiler rear against the firebox front.

### **Fig. 2.**

With the main body construction complete you can now add the remaining etchings and castings.

First solder in place the following items. Left and right cab/running plate steps (25 & 26), chimney (17), dome (18), buffer shanks (20), vacuum pipe (21), steam pipe (22) and lamp irons (24). Note the buffers come with their own instructions. The interior firebox weight (28) can be glued into the roof of the firebox at this stage. The front splasher tops (38, these are handed) and the rear splasher tops (37) can be glued in position from underneath. When firmly in position the ends can be trimmed. The cab floor can now be fitted making sure that it is square to the back of the running plate. The wheel covers/boxes (31 & 32) can be set into the corners of the cab and the backhead (33), with

the manifold (34) fitted into the top hole, can be stuck in between these two. The cylinder valve chest cover (23) can be fitted into the recess under the front of the smokebox. Fit all the remaining parts bearing in mind that it is well worth referring to photographs to get the exact positions of parts. Note that the injectors (41 & 44) fit behind the cab steps. The anti vacuum valves (43) were removed around the late 1930's. So you may not need to fit these. Fabricate the whistle base (48) from tube.

### **Fig. 3.**

Cut out the main chassis etching (50) along with the frame spacers marked A (52), B (53), C (54) and D (55) [E and F are attached to the bottom of the chassis]. Solder four of the 1/8<sup>th</sup> chassis bearings (51) into the frame holes. If you intend to use the compensating mechanism only fit bearings to the right hand side frame and remove the centre hole sections from the left hand side to leave two clear ovals. The remaining two bearings can be fitted into the compensating beam (67). Fold the chassis sides up and check that they are square. Fit the frame spacers C and D first followed by A and B. Solder an 8BA screw into spacer D for the front bogie fixing. Add the left and right hand sandboxes (56 and 57).

With the brake hangers (58) still in the fret solder the blocks (59) to them noting that two of the blocks must be fitted from the back of the fret. Remove the assembled brakes from the fret along with the two brake rods (60). Solder two pieces of wire into the frames and fit the brake hangers. Solder two more pieces of wire and the two brake rods into the bottom of the hangers. If fitting the compensating mechanism refer to fig. 3a. Mount the compensating beam onto a piece of wire between the frames along with the spring (68) to hold it against the left hand frame side. Solder the wire in place. The beam should rock freely. The wheels of your choice can now be fitted along with the motor (A Mashima 1624 flat can motor and a Markits 1846v gearbox are recommended). Assemble the coupling rods (64 and 65).

Fit the 2mm bearings (66) to the bogie (61) and fold the sides up at right angles. Solder an 8BA screw in from underneath and attach the radius arm (62). This will then locate onto spacer D or D1.

To assemble the chassis as EM/P4 simply use the frame spacers marked A1 (69), B1 (70), C1 (71), D1 (72), E1 (73) and F1 (74). E1 and F1 replace the lower spacers E and F that are attached to the chassis.

When the chassis is fitted into the body the loco — tender coupling (63) mounts onto the rear body fixing. Use the remaining 1/8<sup>th</sup> bearing to act as a spacer.

## **PARTS LIST**

- |                                 |                                         |
|---------------------------------|-----------------------------------------|
| 1. Running plate.               | 44. R/H injector.                       |
| 2. Running plate valences.      | 45. Safety valve base.                  |
| 3. Bufferbeam.                  | 46. Safety valves.                      |
| 4. Bufferbeam riveted overlay.  | 47. Ejector pipe.                       |
| 5. Cab front.                   | 48. Whistle base (fabricate from tube). |
| 6. Cab sides.                   | 49. Whistle.                            |
| 7. Front frame tops.            | 50. Main chassis frames.                |
| 8. Smokebox support.            | 51. 1/8 <sup>th</sup> chassis bearings. |
| 9. Pre-formed firebox.          | 52. Front frame spacer 'A'.             |
| 10. Firebox front.              | 53. Rear frame spacer 'B'.              |
| 11. Rolled boiler.              | 54. Rear frame spacer 'C'.              |
| 12. Inner smokebox overlay.     | 55. Centre frame spacer 'D'.            |
| 13. Outer smokebox overlay.     | 56. Rear sandboxes.                     |
| 14. R/H cab side overlay.       | 57. Front sandboxes.                    |
| 15. L/H cab side overlay.       | 58. Brake hangers.                      |
| 16. Boiler bands.               | 59. Brake blocks.                       |
| 17. Chimney.                    | 60. Brake rodding.                      |
| 18. Dome.                       | 61. Front bogie.                        |
| 19. Smokebox door.              | 62. Bogie radius arm.                   |
| 20. Sprung buffers.             | 63. Loco – tender coupling.             |
| 21. Vacuum pipe.                | 64. Coupling rods.                      |
| 22. Steam pipe.                 | 65. Coupling rod overlays.              |
| 23. Cylinder valve chest cover. | 66. 2mm bearings.                       |
| 24. Lamp brackets.              | 67. Compensating beam.                  |
| 25. Running plate steps.        | 68. Spring.                             |
| 26. Cab steps.                  | 69. Front EM frame spacer 'A1'.         |
| 27. Washout plugs.              | 70. Rear EM frame spacer 'B1'.          |
| 28. Inner firebox weight.       | 71. Rear EM frame spacer 'C1'.          |
| 29. Cab roof.                   | 72. Centre EM frame spacer 'D1'.        |
| 30. Cab floor.                  | 73. Lower EM frame spacer 'E1'.         |
| 31. R/H wheel cover box.        | 74. Lower EM frame spacer 'F1'.         |
| 32. L/H wheel cover box.        | 75. Bogie EM spacer 'H1'.               |
| 33. Cab backhead.               | 76. Short handrail knobs.               |
| 34. Backhead manifold.          | 77. Long handrail knobs.                |
| 35. Piping conduits.            | 78. 8BA nuts and screws.                |
| 36. Sandbox fillers.            | 79.                                     |
| 37. Rear splasher tops.         | 80. Copper wire.                        |
| 38. Front splasher tops.        | 81. Brass wire.                         |
| 39. Clack valves and piping.    | 82. Cab fallplate.                      |
| 40. Steam pipe.                 |                                         |
| 41. L/H injector.               |                                         |
| 42. Westinghouse pump.          |                                         |
| 43. Anti – vacuum valves.       |                                         |

FIG. 1. MAIN BODY ASSEMBLY.

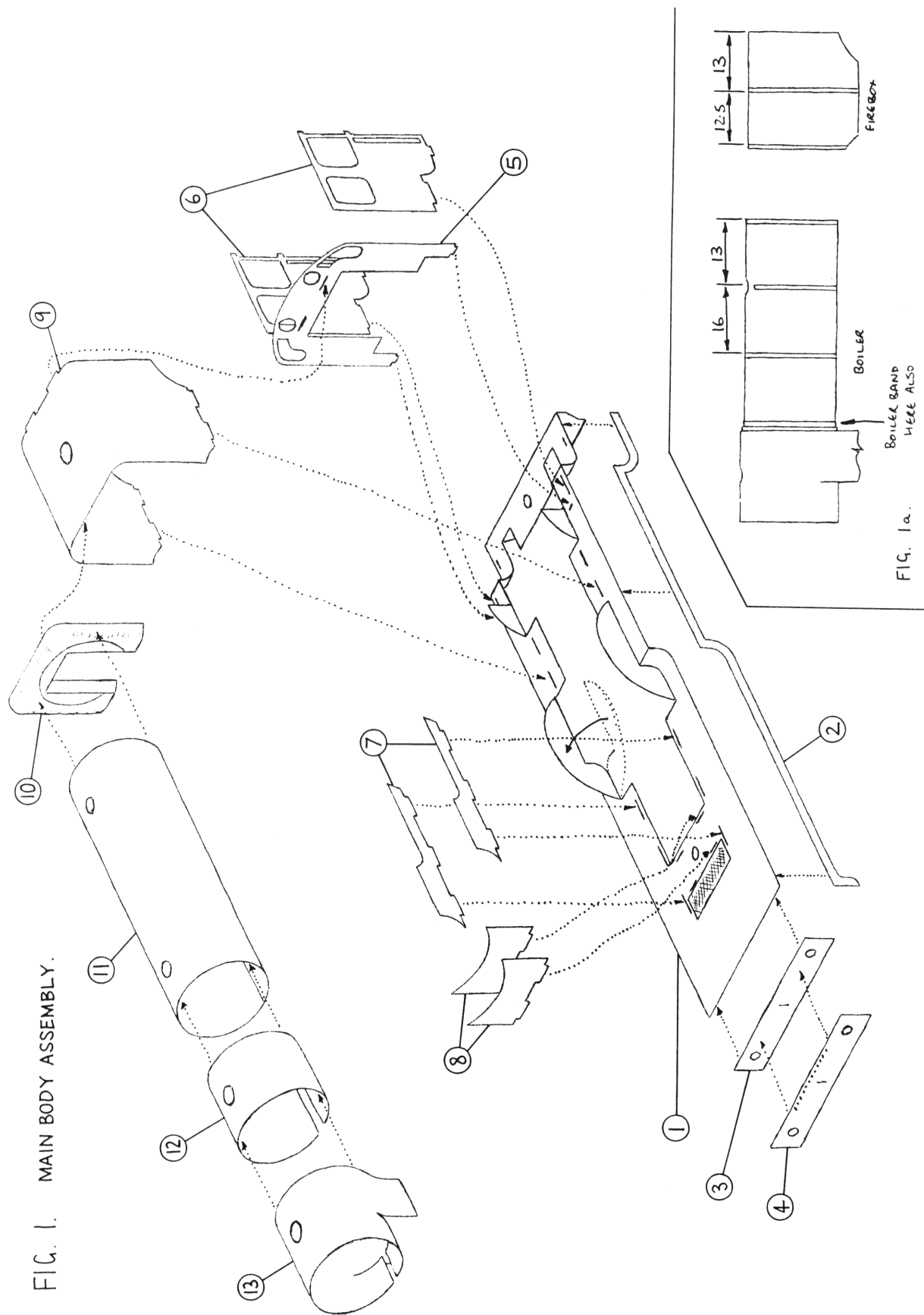
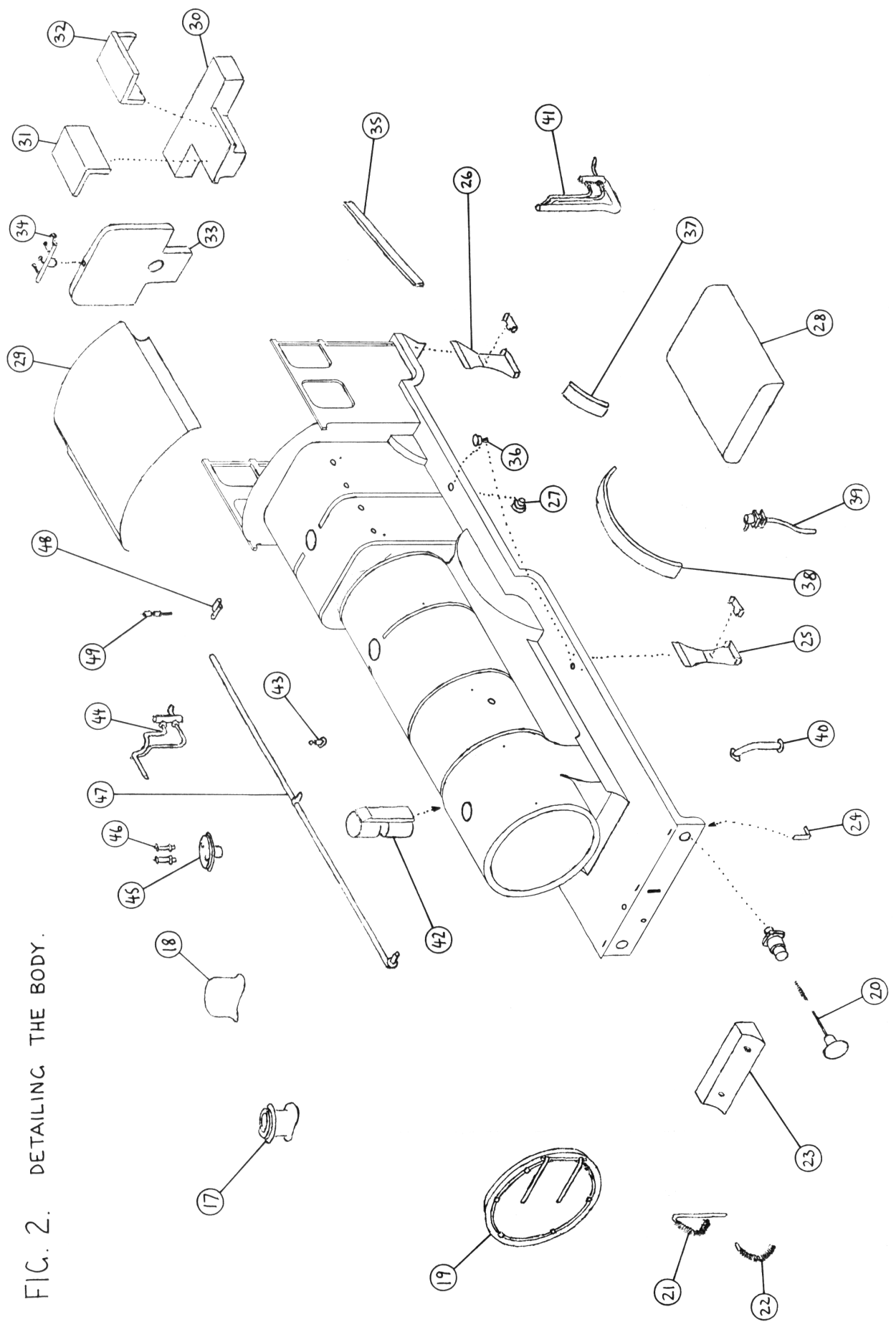


FIG. 2. DETAILING THE BODY.





## Maunsell Six Wheel Tender Instructions.

### Fig. 1. Tender Construction.

Take the tender running plate (1) and fold the drag beam down at the front. Solder the main frames (2) into their slots noting that the smaller curved cut out goes at the front. Fit the bufferbeam (3) in place at the back of the frames. Solder the valances (4) under the edge of the running plate. Solder the six pin point bearings (5) into the frame holes.

Solder the tender rear frame (6) into the slots at the back of the running plate. Then fit the tender side frames (7) into their slots noting that the large recess goes to the back of the tender.

Take the coal plate (8) and fold down the front bulkhead section. Fold up the coal space (9) and solder it under the coal plate. Fit this unit to the top of the sides and rear. Now solder in place the side and rear overlays (10 & 11).

Fit the steps (12) in the same way as on the loco body. Solder the coal bulkheads (13) into their slots and the coal chute (14) into the recess in the coal hole.

### Figs. 2 & 3.

Rear Steps (15),

Lamp brackets (16) [from staples],

Axleboxes (17),

Water filler (18),

Buffers (19),

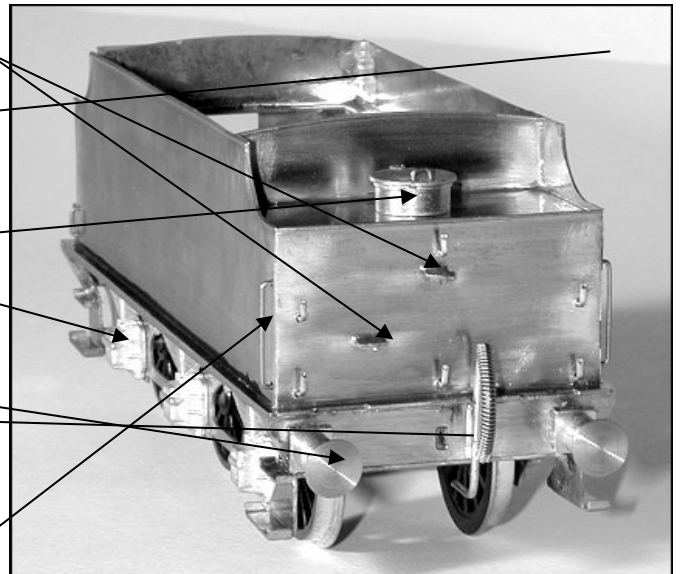
Vacuum pipe (20).

Handrails (21),

Toolboxes (22),

Front footplate (23),

Brake standard (24),



### **Parts List.**

- |                           |                      |
|---------------------------|----------------------|
| 1. Tender running plate.  | 16. Lamp brackets.   |
| 2. Frames.                | 17. Axleboxes.       |
| 3. Bufferbeam.            | 18. Water filler.    |
| 4. Valances.              | 19. Buffers.         |
| 5. Pin point bearings     | 20. Vacuum pipe.     |
| 6. Tender rear frame.     | 21. Handrail wire.   |
| 7. Tender side frames.    | 22. Toolboxes.       |
| 8. Coal plate.            | 23. Front footplate. |
| 9. Coal space.            | 24. Brake standard.  |
| 10. Tender side overlays. |                      |
| 11. Tender rear overlay.  |                      |
| 12. Tender side steps.    |                      |
| 13. Coal bulkheads.       |                      |
| 14. Coal chute.           |                      |
| 15. Tender rear steps.    |                      |

**[www.pdkmodels.co.uk](http://www.pdkmodels.co.uk)**

**E-Mail: [pdkmodels@hotmail.co.uk](mailto:pdkmodels@hotmail.co.uk)**

**P. D. K. MODELS.**

**HILLTOP BUNGALOW.  
CARNKIE  
HELSTON  
TR13 0DZ**

**07732 213251.**

Fig. 1. Tender Construction.

