

DRUMMOND M7 0-4-4t INSTRUCTIONS

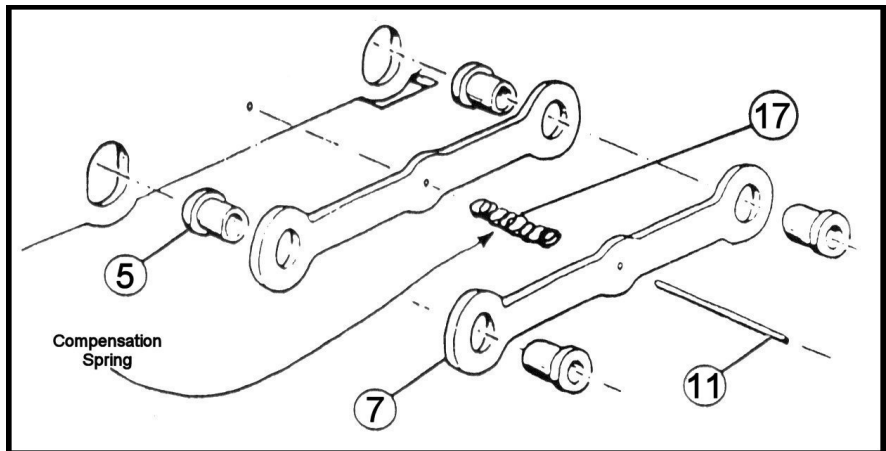
CHASSIS ASSEMBLY

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 remove the front 5mm if modelling a short frame loco. Solder the axle bearings (5) into the frames, if building a rigid chassis, or into the compensating beams (7) for a compensated chassis. Solder the guard irons (6) into the recesses at the front of the frames. Fold the chassis up and solder the frame spacers (2, 3 & 4) into their recesses. Solder an 8BA screw (15) into the large spacer (4). File the head of the screw flat almost down to the brass, otherwise it will interfere with the cab floor.

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. Solder the dummy outside springing (13) onto the outside of the bogie frame, and then solder four 2mm bearings into the axle holes. Turn to the compensating mechanism itself.

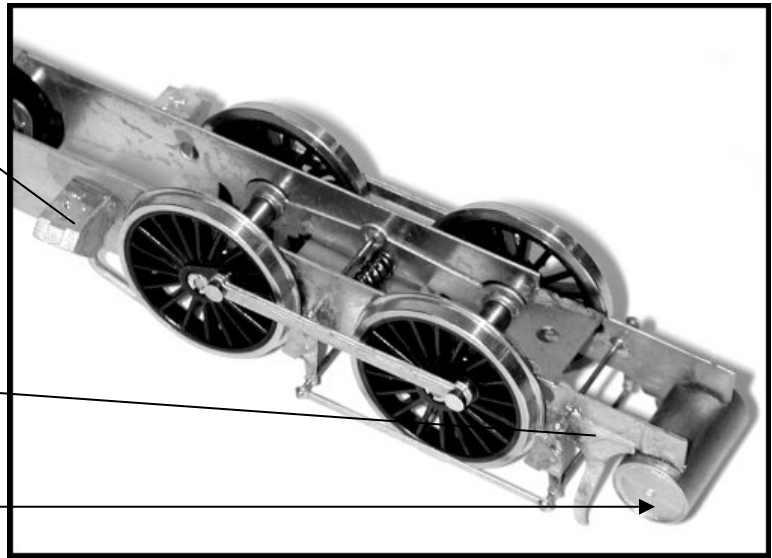


Solder the 1/8th axle bearings (5) into the compensating beams (7). The compensating spindle should be cut from the brass wire (11). The beams are held apart by the compensation spring (17). It is very important that no parts of this mechanism are soldered in a fixed position other than the spindle to 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 (21) and then the bogie and when satisfied that all works O.K. remove the wheels and the bogie and put them to one side.

Glue the rear sandboxes (18) behind the rear wheels.

The front sandboxes (19) only need to be fitted if you are modelling a loco without sandboxes integral with the splashers. They fit just in front of the front brakes on top of the guard irons.

If modelling a push – pull fitted loco fit the vacuum reservoir tank (20) at the front of the frames.



SUPERSTRUCTURE ASSEMBLY

If modelling a short frame loco remove the front 5mm of the running plate and use the shorter valences.

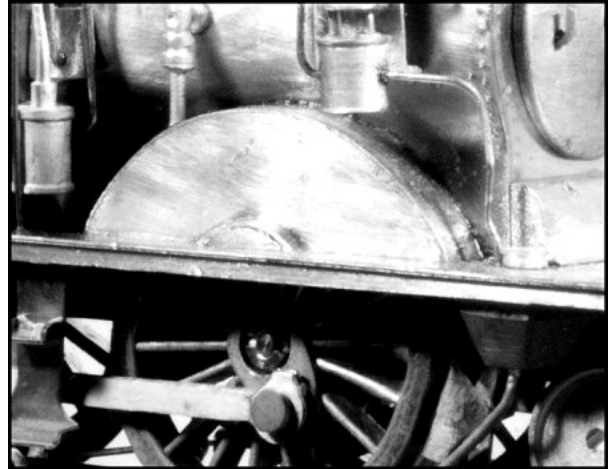
Take the main running plate (1) and solder the rear bufferbeam (2) into its recess. Make sure it sits square. Solder the two running plate valences (3) into the recesses just in from the edge of the running plate and then solder the front bufferbeam in place. Solder two 8BA (15) screws into the holes in the running plate. Take the tank/cab sides (4 & 5) and fold the tank front in at 90 degrees on both, then solder them into their slots. With the tank sides in position drop the cab front (6) and rear (7) into their slots, noting that the recesses for the spectacle frames and coal guards must face outwards. Solder them in place and make sure that all is square. Fold the ends of the cab floor (16) down and drop it into the cab. Make sure that it sits correctly and solder in place.

Shape the bunker rear (8) to match the ends of the sides (etched lines inside). Solder it into the slots. The bufferbeam may obstruct the slots so you may need to file away the tabs slightly. Solder the bunker floor (9) into the bunker about 5mm below the top.

Locate the tank tops (14) into the half etched lines 1mm from the top of the tank sides. (The hole for the water filler goes at the front). Solder in place.

Turn now to the boiler (17), solder up its seam, then solder the smokebox inner (18), and smokebox outer (19) over its front end. If modelling a loco with combined sandboxes and splashers the smokebox parts can be rolled round and secured along the underside of the boiler. However, if modelling one of the twenty locos with separate sandboxes, the smokebox parts will have to be shaped to match the separate smokebox front without the wing plates. The rear section of the bottom of the smokebox will then need to be cut away inside the splashers to clear the front driving wheels, and also shortened slightly. Fold the small splashers sides (integral to the running plate) up. For locos with combined splashers and sandboxes, these are etched in one piece, with the smokebox front (21) and splashers

tops (22), and this should be formed next, and then this and the boiler soldered into position on the loco. For separate sandbox types, the splashers (23) and splasher tops (24) should now be fitted to the loco. Next curve the small coupling rod splasher tops (25) and fix in place. Turn back to the boiler, and fit the boiler bands (30), one fits against the smokebox wrappers and the positions of the other two are marked on the boiler.



Splashers without Integral Sandboxes

Solder the bunker beading (10) to the top edge of the bunker, then fix the window coal guards (28) into the recesses around the rear cab windows. Take the coal rail sides and back (11), and solder to the top of the bunker, on top of the beading, then fix the front cab spectacle frames (29) in place. Next fit the cab side beading (27) to the edges of the cab cut-outs, curving the corners to match during fitting and then the tank beading (26), selecting the beading with the handrail stanchions on the outside for push pull fitted locos or beading with stanchions central for non push pull fitted locos.

Glue the backhead (31) into the cab, and then glue the two toolboxes (32) into the rear corners of the cab. Shape the cab roof (12) to match the cab front/rear (with the etched lines outside). Fold the rain strips on the roof up and then solder the roof to the cab. Solder the three cab roof ribs (13) to the cab roof, one at the front, one at the rear and one in the centre etched recess.

Solder the running plate and cab steps (33) in position and solder the small centre steps (34) into the slots. Solder the bufferbeam overlays (35) in place.

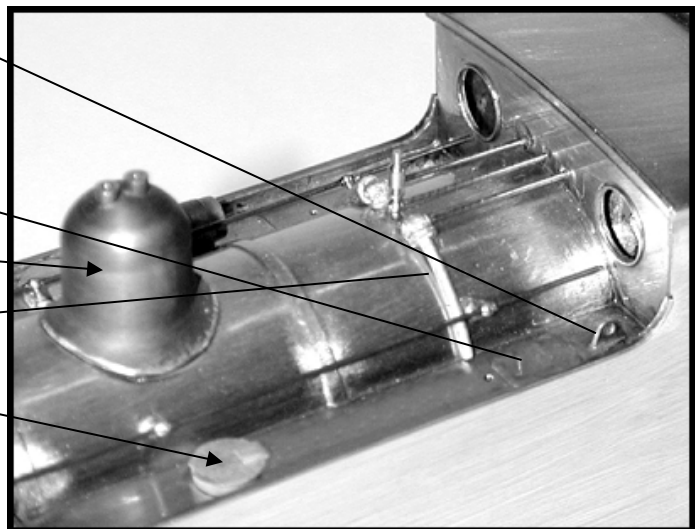
Solder the lifting lugs (36) into their slots.

Solder the tank inspection hatches (37) just in front of the lifting lugs.

Glue the dome (38) in place.

Glue the injector pipes (39) in place.

Glue the tank fillers (40) in place.



Glue the following parts in place.

Chimney (41).

Vacuum tank (42) [push-pull only].

Timing pump (43) [push-pull only].

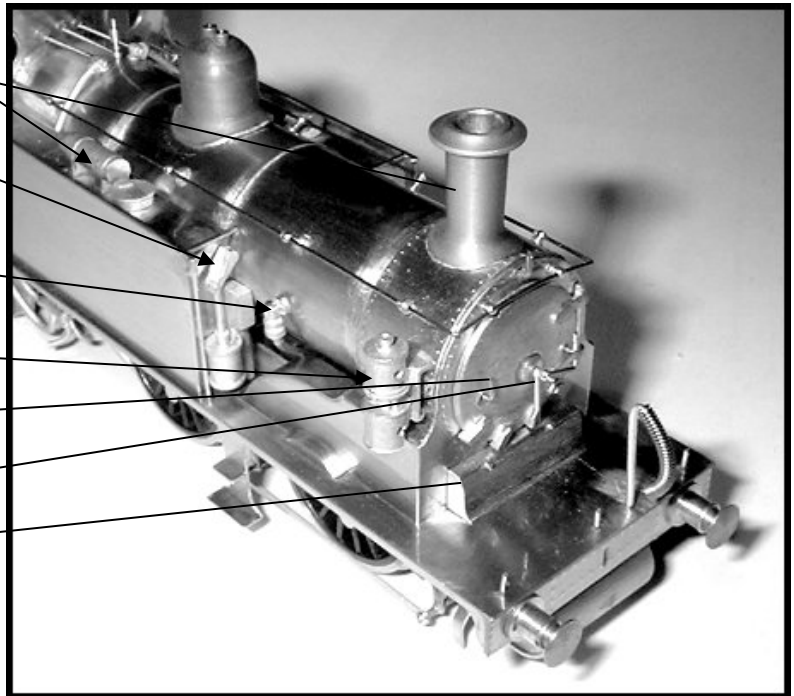
Clack valves (44).

Westinghouse pump (45) [push-pull only].

Smokebox door (46) [two types].

Smokebox door handle (47).

Cylinder cover (48).

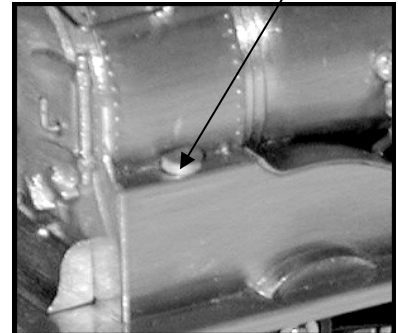
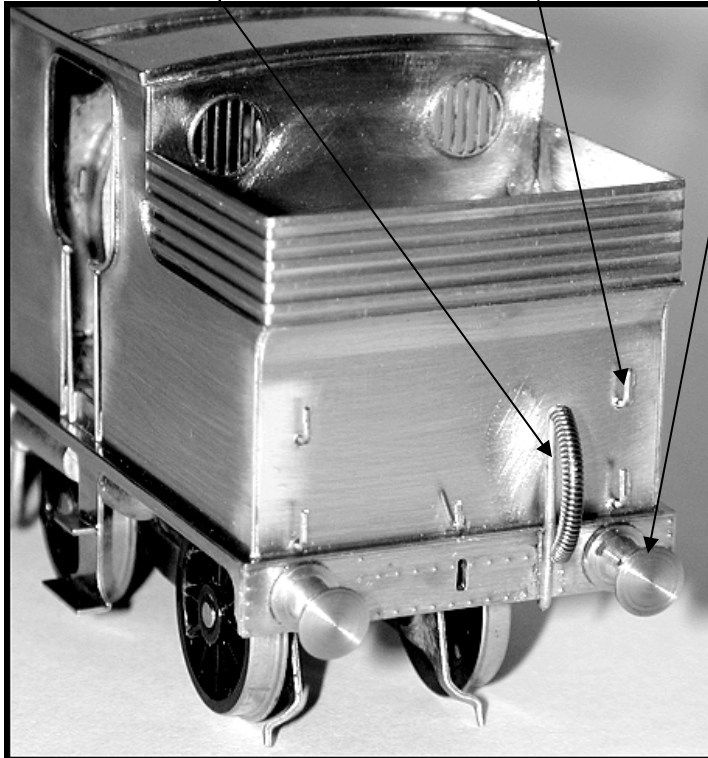


Vacuum pipes (49).

Lamp brackets (50).

Buffers (51).

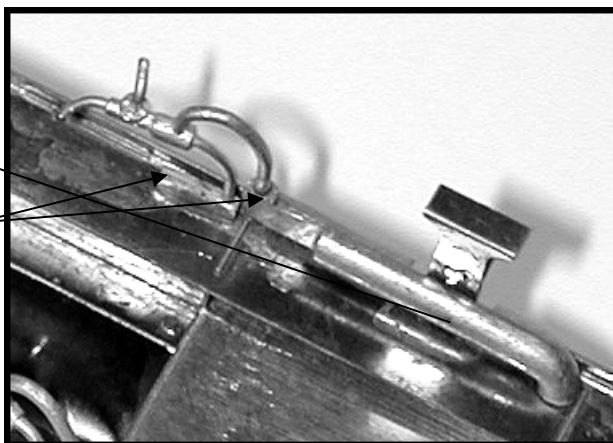
Sandbox fillers (52).



Finally add all the handrails, drilling out with a 0.9mm drill where necessary. Handrail knobs (52) are supplied for the boiler. The remainder can be made up with the brass wire (53).

Solder or glue the water balance pipes (55) behind the cab steps.

Glue the rear pipe on the injectors (54) into the hole in the balance pipes and the block underneath the running plate.



CHASSIS PARTS LIST

- | | |
|-------------------------------------|--------------------------|
| 1. Frames. | 12. Bogie. |
| 2. Rear frame spacer. | 13. Dummy springs. |
| 3. Front frame spacer. | 14. 2mm bearings. |
| 4. Centre frame spacer. | 15. 8BA screws. |
| 5. 1/8 th axle bearings. | 16. Coupling rods. |
| 6. Guard irons. | 17. Compensating spring. |
| 7. Compensating beams. | 18. Rear sandboxes. |
| 8. Brake hangers. | 19. Front sandboxes. |
| 9. Brake blocks. | 20. Vacuum tank. |
| 10. Brake pull rods. | 21. Bogie spacer. |
| 11. Brass wire. | |

P. D. K. MODELS.

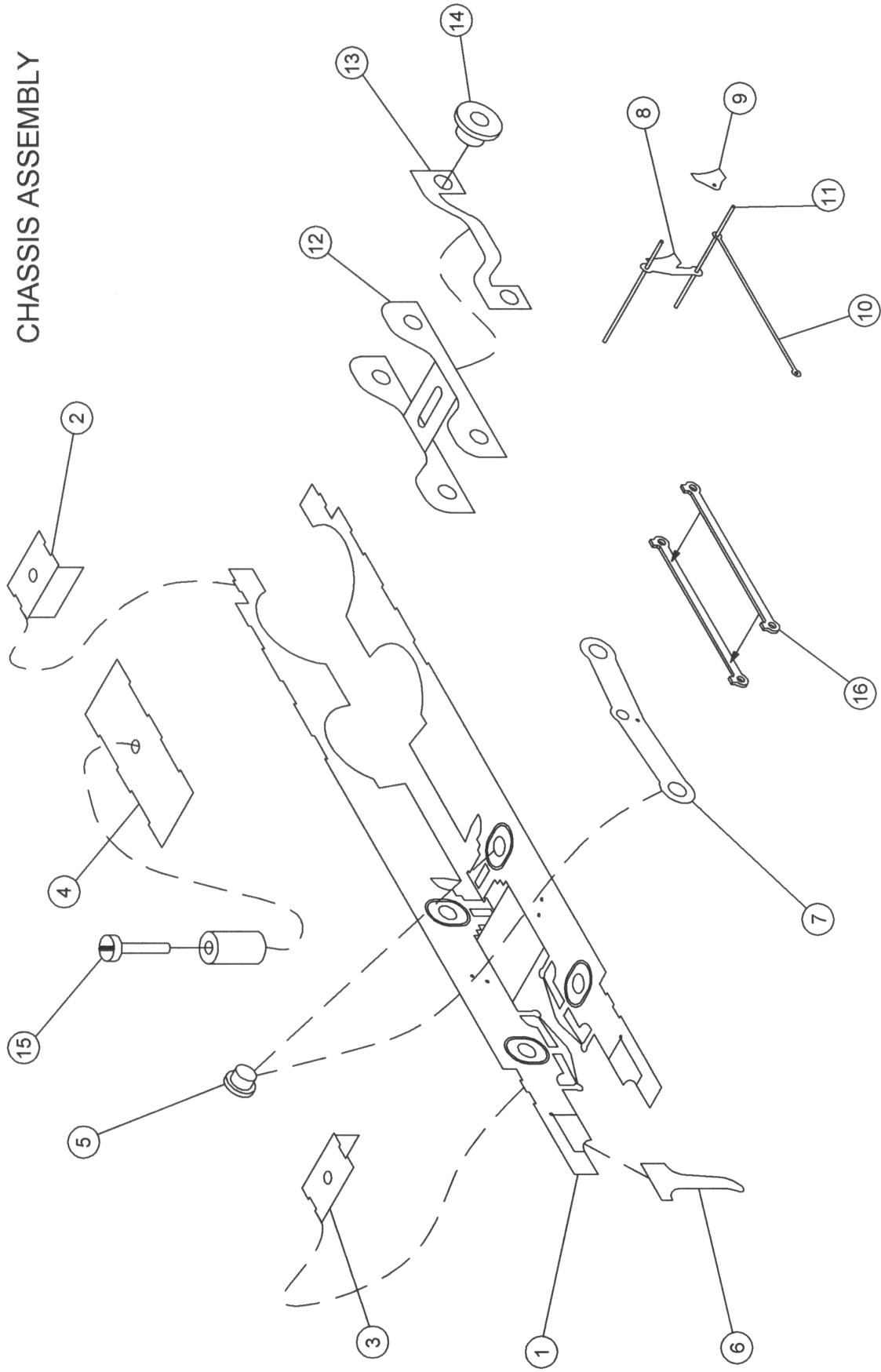
**HILLTOP BUNGALOW.
CARNKIE
HELSTON
TR13 0DZ**

07732213251

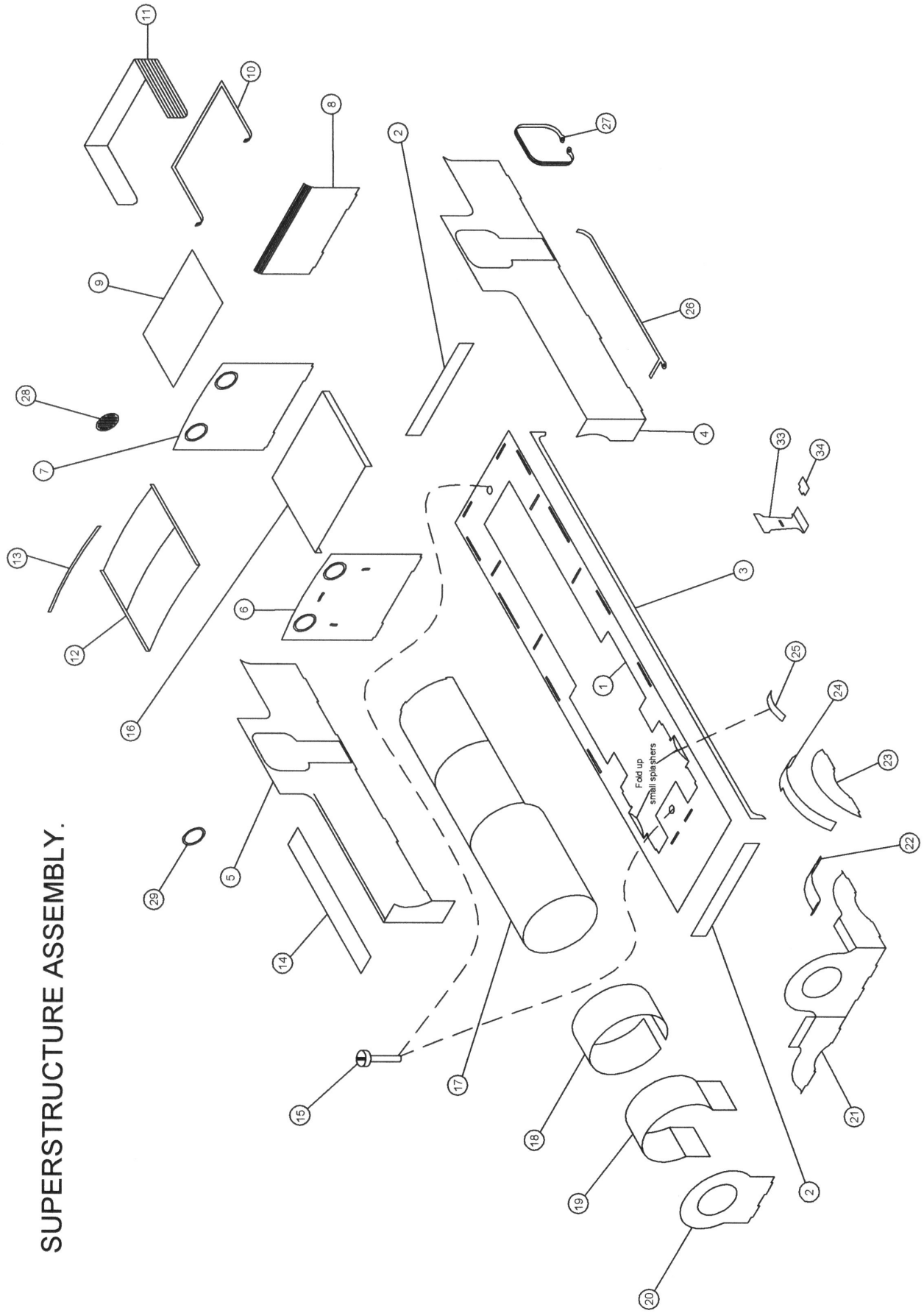
www.pdkmodels.co.uk

E-Mail: pdkmodels@hotmail.co.uk

CHASSIS ASSEMBLY



SUPERSTRUCTURE ASSEMBLY.



SUPERSTRUCTURE PARTS LIST

- | | |
|--|---------------------------------|
| 1. Running plate. | 28. Cab window coal guards. |
| 2. Bufferbeams. | 29. Cab front spectacle frames. |
| 3. Valences (long & Short). | 30. Boiler bands. |
| 4. Cab/tank side, L/H. | 31. Backhead. |
| 5. Cab/tank side, R/H. | 32. Tool cupboards. |
| 6. Cab front. | 33. Running plate/cab steps. |
| 7. Cab rear. | 34. Centre steps. |
| 8. Bunker rear. | 35. Bufferbeam overlays. |
| 9. Bunker bottom. | 36. Lifting lugs. |
| 10. Bunker beading. | 37. Inspection hatches. |
| 11. Bunker coal rails. | 38. Dome. |
| 12. Cab roof. | 39. Injector pipes. |
| 13. Cab roof beading. | 40. Tank fillers. |
| 14. Tank tops. | 41. Chimney. |
| 15. 8BA screws & nuts. | 42. Push – pull vacuum tank. |
| 16. Cab floor. | 43. Timing pump. |
| 17. Boiler. | 44. Clack valves. |
| 18. Smokebox inner wrapper. | 45. Westinghouse pump. |
| 19. Smokebox outer wrapper. | 46. Smokebox door. |
| 20. Smokebox front (separate splashers). | 47. Smokebox door handle. |
| 21. Smokebox front & splashers (integral sandboxes). | 48. Cylinder cover. |
| 22. Splasher tops (integral sandboxes). | 49. Vacuum pipes. |
| 23. Separate splasher sides. | 50. Lamp brackets. |
| 24. Separate splasher tops. | 51. Buffers. |
| 25. Coupling rod splasher tops. | 52. Handrail knobs. |
| 26. Tank side beading. | 53. Brass wire. |
| 27. Cab side beading. | 54. Injectors. |
| | 55. Water balance pipes. |