

CONNOISSEUR MODELS

Claymore Kits

LNER Class J83, North British Railway Class D



This kit was originally produced by George Dawson of Majestic Models. When George reached the age at which you get a senior citizens railcard and start reminiscing about Churchills speeches. He decided to sell his range of loco kits and concentrate on the more gentle pursuit of producing wagon kits. Knowing that Georges kits had a very good reputation and a selection of NBR locos would complement my range nicely. I was very keen to purchase and produce them.

I have deliberately made very few changes to the kit and have reproduced Georges instructions without alteration. If you are familiar with Georges kits and NBR locos you will probably find these instructions adequate. As a firm believer in the idea that the person who produces a kit should have built one. I have included a set of supplementary instructions describing the way that I built the kit. I suggest that you use these in conjunction with Georges instructions. In a similar way as using a magazine constructional article or review to help you build a kit.

PARTS REQUIRED TO COMPLETE

3 X 4'6", 14 spoke, driving wheels (Slaters cat No 7854LB)
Mashima 1833 motor and 40/1 gearset.

Plunger pickups if desired (Slaters cat No 7157)

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NBR CLASS D/LNER CLASS J83 - A short history.

These locomotives were designed by Holmes in the late 1890's and 40 were ordered from outside contractors and built between 1900 & 1901.

Few alterations were made before grouping, in 1923, but soon after, all had new boilers fitted, along with other minor alterations. All except No.8462 (ex 9815), were taken over by British Railways. The whole class was withdrawn by 1962, the last being Nos.68445, 68448, 68453, 68470 & 68479, all taken out in November and No.68477 in December 1962.

Original NBR Nos. 795 - 814 were built by Nelson, Reid & Co. between 1900 and 1901. Nos. 815 - 834 were built by Sharp, Stewart & Co. in 1901. These Nos. became 9795 - 9834 in 1924 and were changed again, in 1946, to 8442 - 8481.

During 1924 & '25 rebuilding took place and certain alterations made, those affecting this kit are shown in the instructions. Perhaps it should be pointed out that the original 1924 diagram only shows the NBR original version, a new diagram was issued but not until 1939 and this appears to show modifications which never took place.

In 1933 a J31 boiler was fitted to No. 9801, this later passed to No. 9814 in 1938, 9824 in 1946 and 68451 in 1952. Mention is made of this because this particular boiler carried "lock-up" valves instead of Ross pops until its withdrawal in 1958 (February).

Some boilers were replaced in 1950 and were replaced with rectangular bases to carry the Ross pop valves, these are not supplied with this kit.

The shunting steps, below and to the rear of the cab, were fitted from 1907 but No. 9832 did not receive these until very late in LNER days.

As previously stated, only No.8462 did not pass into BR ownership but the other 39 loco's received the addition of 60,000 to their numbers. Classification: Route Availability 4; BR Power Class 2F.

All the above information and much more, can be found, as mentioned, in -
RCTS "LOCOMOTIVES OF THE LNER" part 8B

About this kit - Notes applicable to most Majestic kits.

Hole sizes.

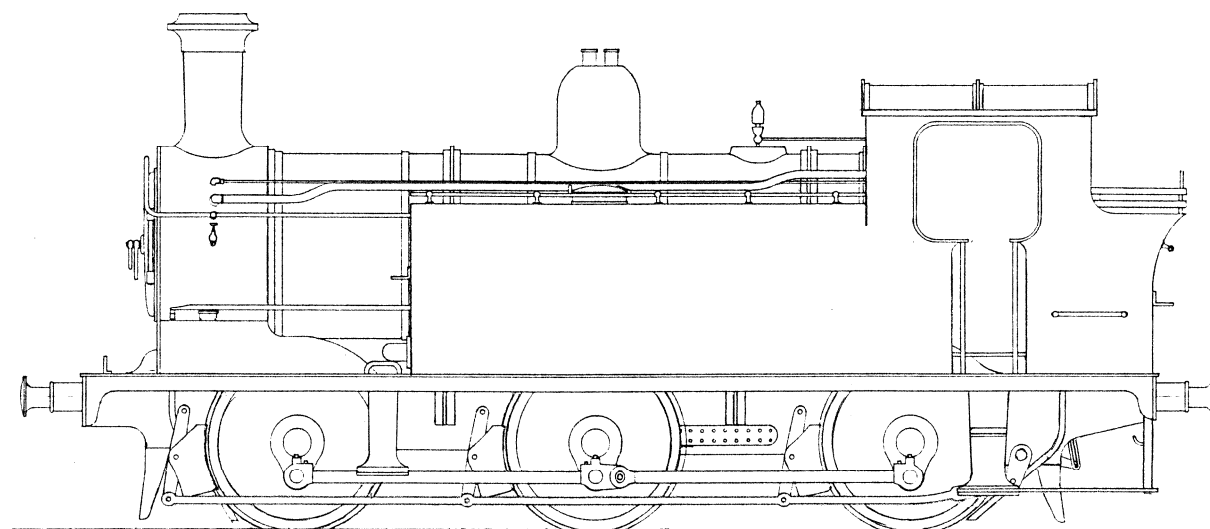
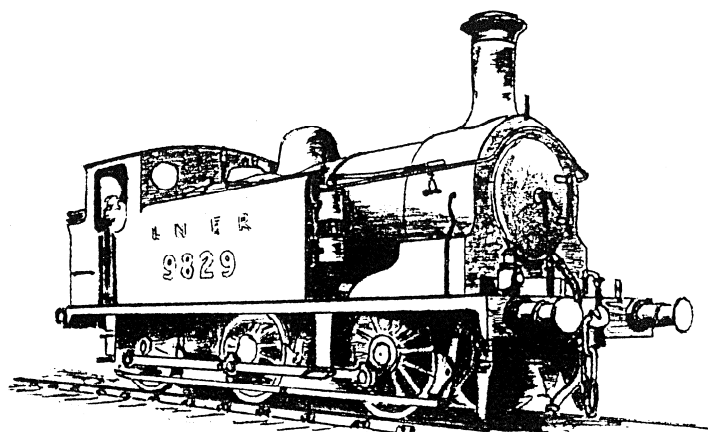
Because of the processes used in etching, hole size cannot be guaranteed so we consider it better to make the holes slightly smaller than really necessary, you will find, therefore, they will require opening out. This can be done, quite easily, if you are prepared to treat yourself to a cheap, tapered, reamer available from Tandy Electrical Stores and some engineering tool suppliers. When new and sharp, these work very quickly so check several times as you go along. A round needle file can be used but will produce an oval hole if you are not careful. On small holes try turning the file anti clockwise, this will stop it jamming in the hole.

Forming parts.

Whilst the boiler is pre formed you may need to form other parts, from time to time. For short, tight, curves, drill shanks are useful coming in various sizes, as they do. For longer curves such as tank tops, you need a longer rod, silver steel is perfect but not essential, any metal rod will do. The bigger curves, such as roofs, bunker backs, etc., a length of 1" pipe, or even the well used broom handle, can work wonders. Again, a little at a time is the rule.

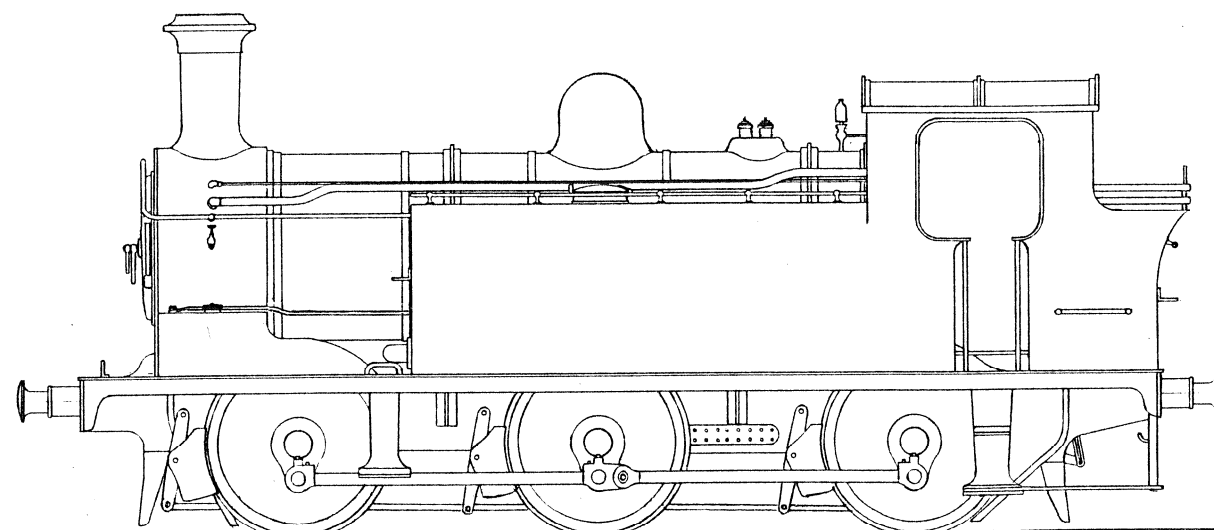
A method employed by many is annealing. This is to heat the metal over a flame, the gas cooker, for example, until it starts to turn purple and allow to cool naturally, do not immerse in water (this is for the opposite i.e. hardening). If it is still too hard, it can be re heated to try again. Do not overheat as the metal will be too soft leaving it unworkable.

N.B. All the drawings in these instructions are isometric and, as such,
ARE NOT TO SCALE.



NORTH BRITISH RAILWAY CLASS "D"

"Lock up" valves on dome; Whistle in front of rear strap; Low sandbox; Outside pull rods on brakes.



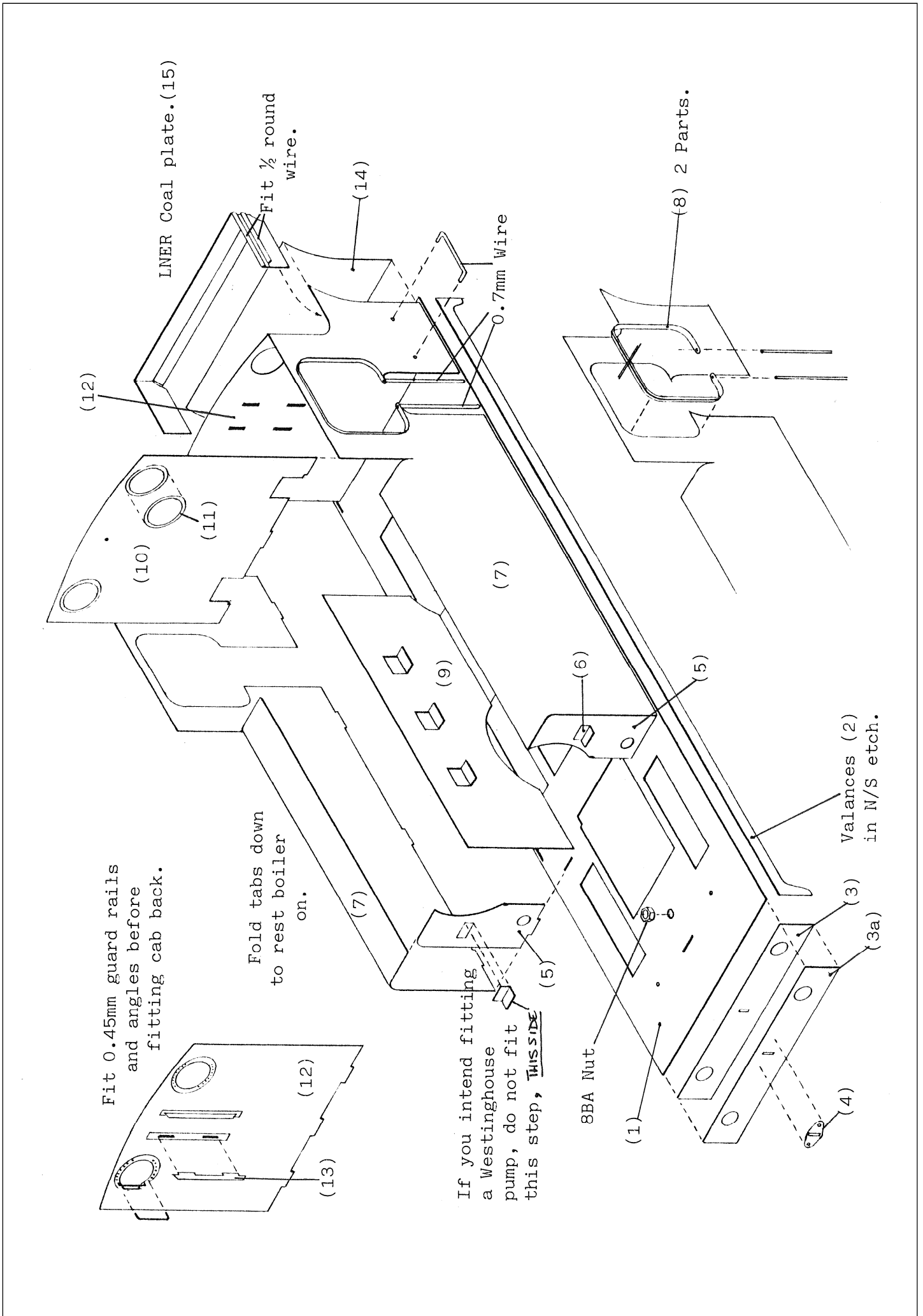
LNER/BR CLASS J83.

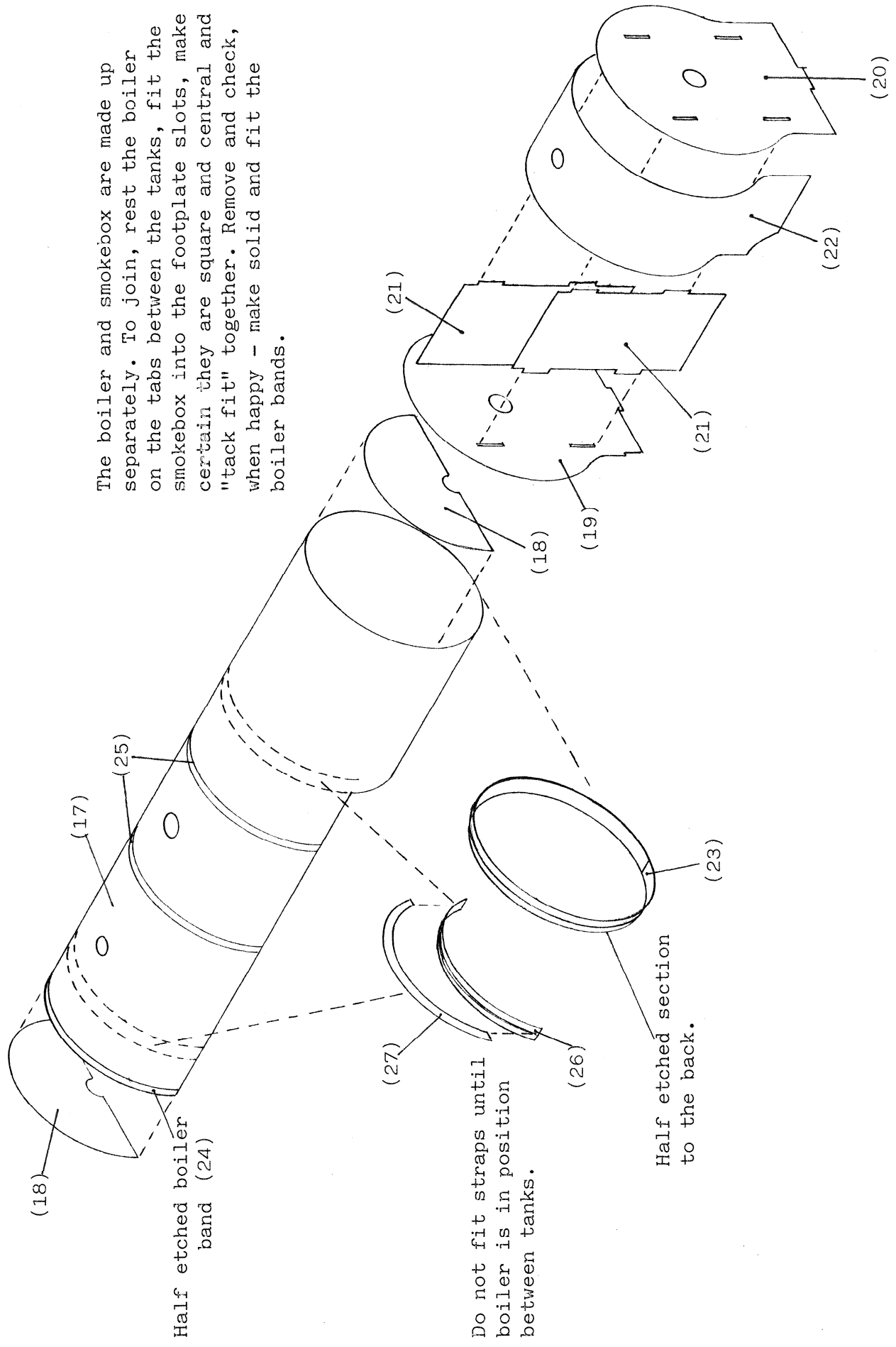
Lower dome; Ross pop safety valves on higher base, in front of rear strap; whistle moved back towards cab; High front sandbox; Inside pull rods. Helical springs fitted to rear axles in place of the laminated type.

Assembling the Kit

Whilst the following sequence is the order in which I built my sample, I do not necessarily maintain this is the only way, you may know better. Where things need to be looked out for, I will try to give some indication in the listings.

1. Footplate. Solder 8BA nuts at each end, on the upper surface.
2. Valances. These will be found in the N/S chassis etc.
3. 18 thou. buffer beam.
- 3a. Half etched buffer beam, solder to (3). Note that some of these locos had welded buffer beams, if that is what you require then file off the outer rivets and reverse the whole thing. NOTE ALSO that the rear buffer beam is narrower than the front.
4. Coupling plate. Solder over slot in beam.
5. Tank ends.
6. Steps. Solder to (5). Do not fit the right hand step if you will be fitting the Westinghouse pump.
7. Body sides. Curve the tank tops using (5) as a template.
8. Beading. Fit into cab opening making sure the holes are exactly in line with those in the footplate.
Fit body sides into footplate.
9. Inside tank wall. Fold tabs down and fit into footplate.
10. Cab front plate.
11. Front spectacle plates.
12. Cab rear plate. Fit 0.45mm wire guard rails in front of windows.
13. Cab rear angles.
14. Bunker back. Curve to shape and fit (6).
15. LNER Coal plate. Shape and fit $\frac{1}{2}$ round brass wire.
16. NBR Coal rails. These can be found in the N/S etc.
17. Boiler.
18. Boiler ends.
19. Smokebox rear plate.
20. Smokebox Front plate.
21. Smokebox plate joiners. MAY NEED FILING TO 18MM accross
22. Smokebox wrapper. Form the wrapper as close to the shape as you can, pin the plate to a piece of wood and solder from the top, at the half etched marks, first one side then the other. Make sure you have these the correct way around.
Slide the boiler between the tanks and fit the smokebox assembly into the footplate slots and "tack fit" boiler and smokebox together. When you are happy, make solid.
23. Connecting ring. Fit around boiler, up to the smokebox.
24. Half etched boiler band. Fit to the rear end of the boiler.
25. Boiler bands. Fit into half etched grooves around boiler.
Now fit the boiler in position between tanks.
26. Support strap base. Curve to shape. Fit between marks on boiler.
27. Support strap angle. Fit into (26). Note there is a third one of these which fits over the rear boiler band, up to the cab front plate.
28. Wing plate. Fit to smokebox front and footplate.
29. Splasher side.
30. Splasher top. Curve and bend to shape, fit over (29).
Fit to footplate, around wheel space and up to rear of wing plate.
31. Sanding pull rods. Bend and fit over hole in splasher top, solder a cut down track pin to secure. Solder the rear end behind tank edge.
You can now form a grab handle from 0.7mm wire to fit into the two holes over where the front step will be.
32. Lamp brackets. Probably better fitted later, 5 at the front & 5 back.





The boiler and smokebox are made up separately. To join, rest the boiler on the tabs between the tanks, fit the smokebox into the footplate slots, make certain they are square and central and "back fit" together. Remove and check, when happy - make solid and fit the boiler bands.

Half etched boiler band (24)

Do not fit straps until boiler is in position between tanks.

Half etched section to the back.

Assembly cont'd.

34. Cab front boxes. Note that 34 is L & R handed.
35. Front box sides.
36. Front box lids.
37. Cab splasher.
38. Floor.
39. Cab rear extension.
40. Coal door.
41. Left hand rear sand box.
42. Right hand rear sand box.
43. Right hand box lid.
44. Doors (Optional).
45. Reversing lever. Does your loco require this? It could be steam!
46. Notched plate. Fit to 45.
47. Rev.lever pull rod. Fit to 45. When complete, the reverser fits on the side of the left hand front box, the pull rod up to the front cab plate.
48. Inside roof. The holes are for easier soldering. Curve to shape.
49. Roof top. Curve and fit to 48.
50. Roof centre angle. Fit into roof slots.
51. Roof front and back edging strips.
52. Roof side edging strips.
53. Roof fitting strips. These may need some adjustment so tack fit only until you have a nice snug fit into the cab top opening, you will then have a removable roof.
54. Front step back plate.
55. Front step. Fit to 54. I strongly recommend strengthening this with something on the back (I happened to find some 2mm x 1mm strip).
56. Rear step back plate.
57. Lower step.
58. Top step.
59. Rear step back support.
60. Shunter's step. The rear support bracket for this is formed from 0.9mm wire and the front end of the step rests on the lower step below the cab. Make sure it is parallel from the side and underneath

Please don't ask what happened to #33 in the listings, I haven't found it yet!

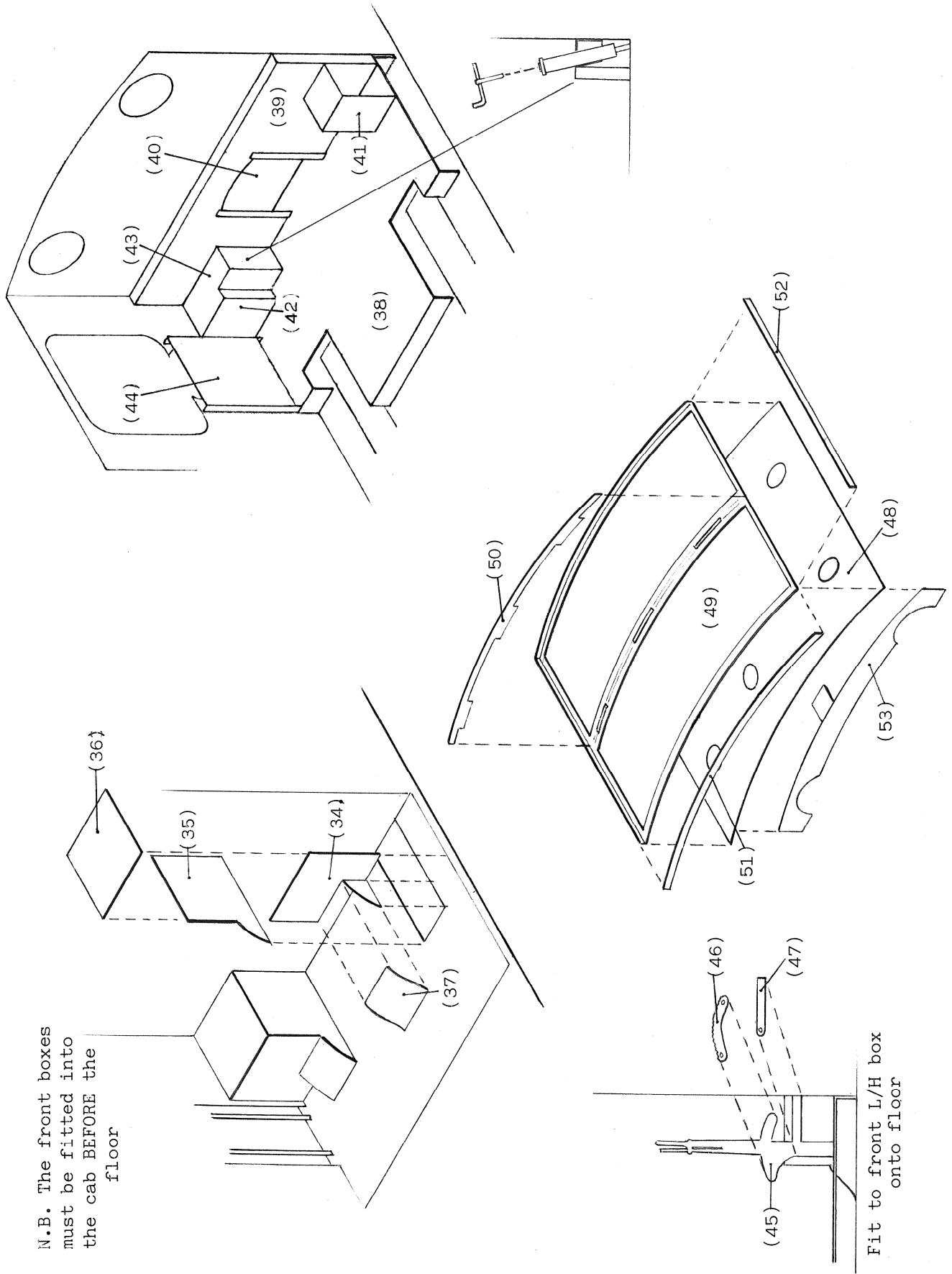
I do not intend describing the castings, I think they will speak for themselves but do make certain you have the correct component.

THE "CONFESSIONAL"

This usually comes at the beginning but, to date, I haven't added these to my sample - WHEEL BALANCE WEIGHTS.

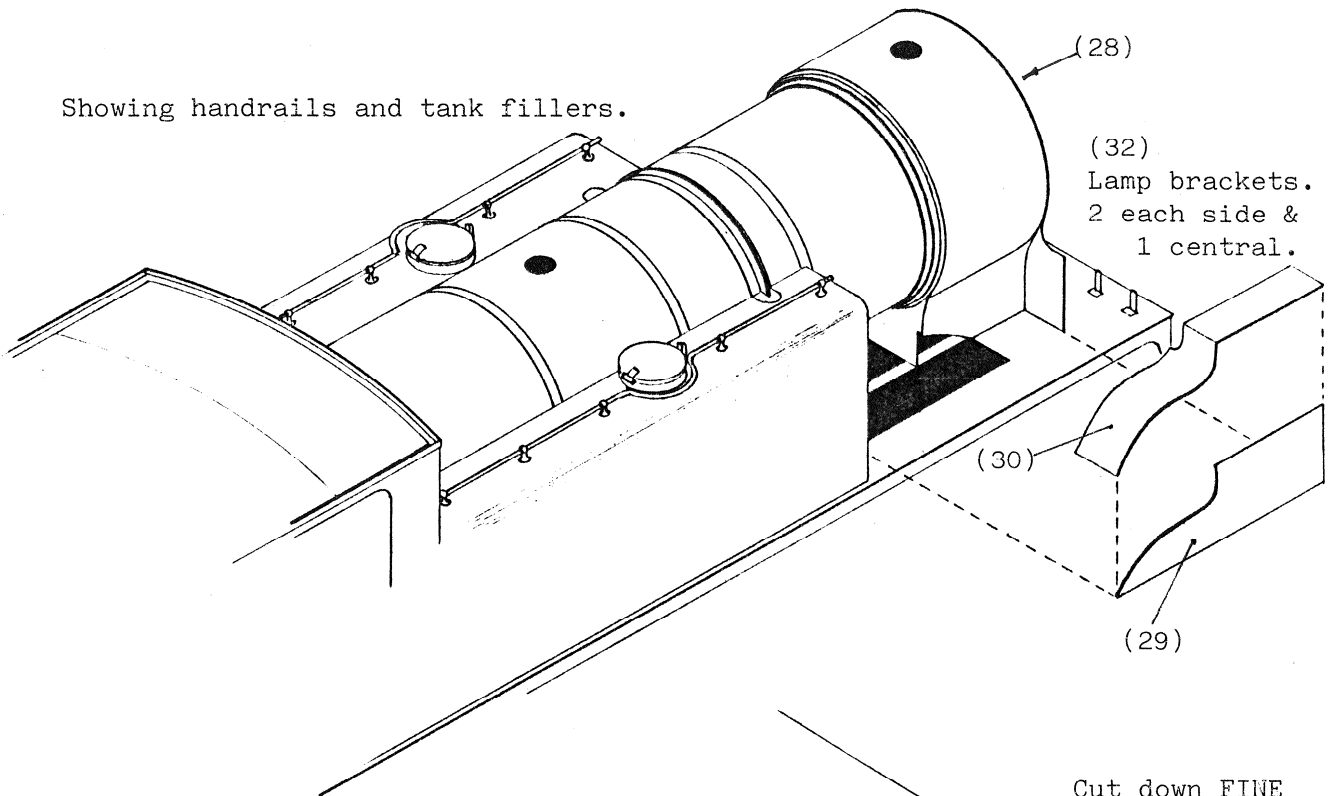
When I built the first kit, from the test etch, I decided one or two things were not good enough, for example, I found that cast springs on the chassis fouled the motor mount so this had to be altered. I also realised that I had omitted the balance weights, these had to be drawn. Unfortunately, by then, I was half way through the C15 and this drawing was on my board..... I do have these brain lapses from time to time and all I can do is apologise. The weights in the etch may fit a 5' 9" driver but will not fit a 4' 6" and so cannot be used. This will be corrected in time but there lies the problem - time! I can only suggest the use of 10 or 15thou plastikard and hope you will forgive my folly.

N.B. The front boxes must be fitted into the cab BEFORE the floor

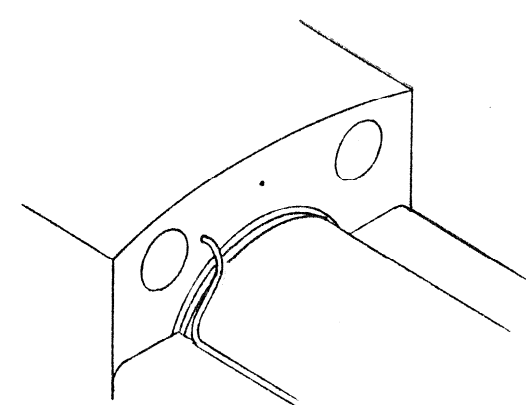
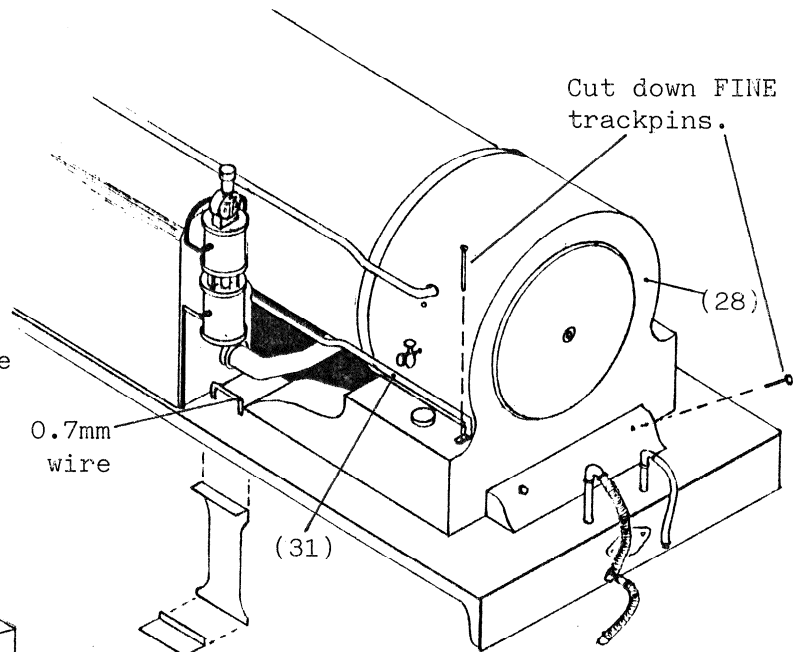


Fit to front L/H box onto floor

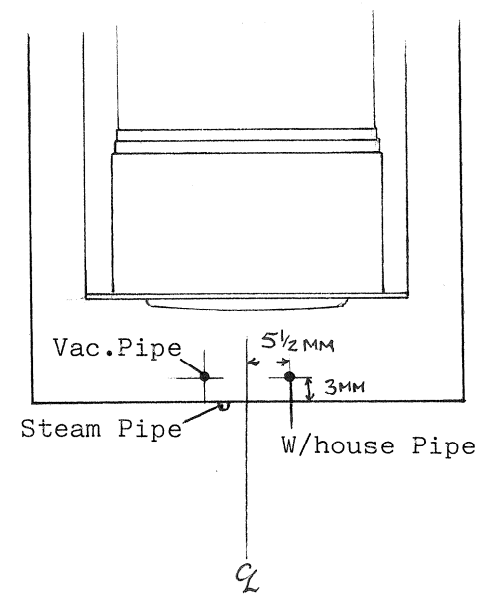
Showing handrails and tank fillers.

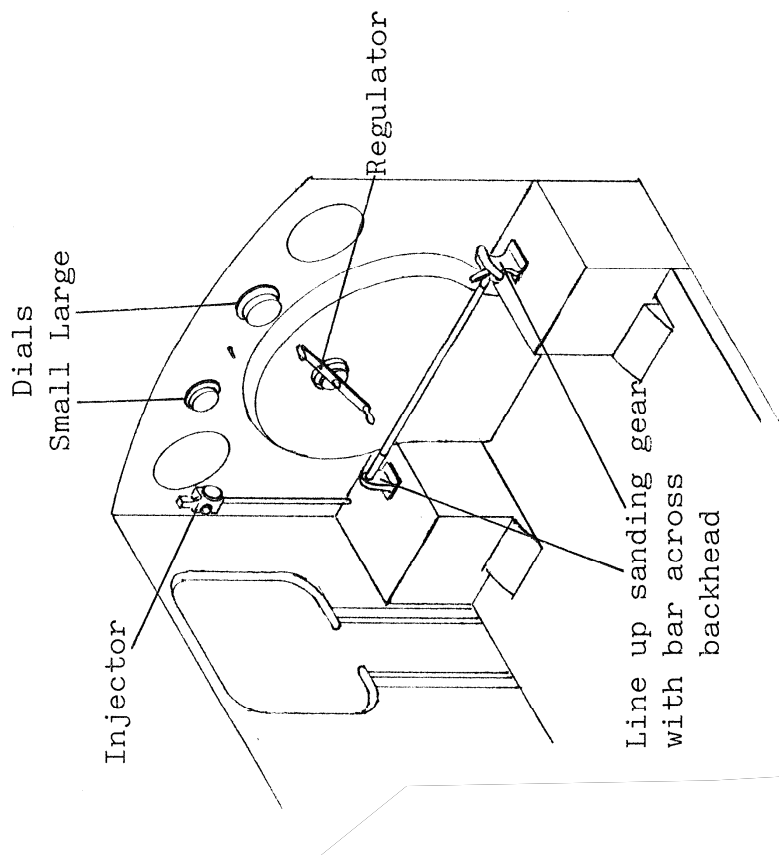


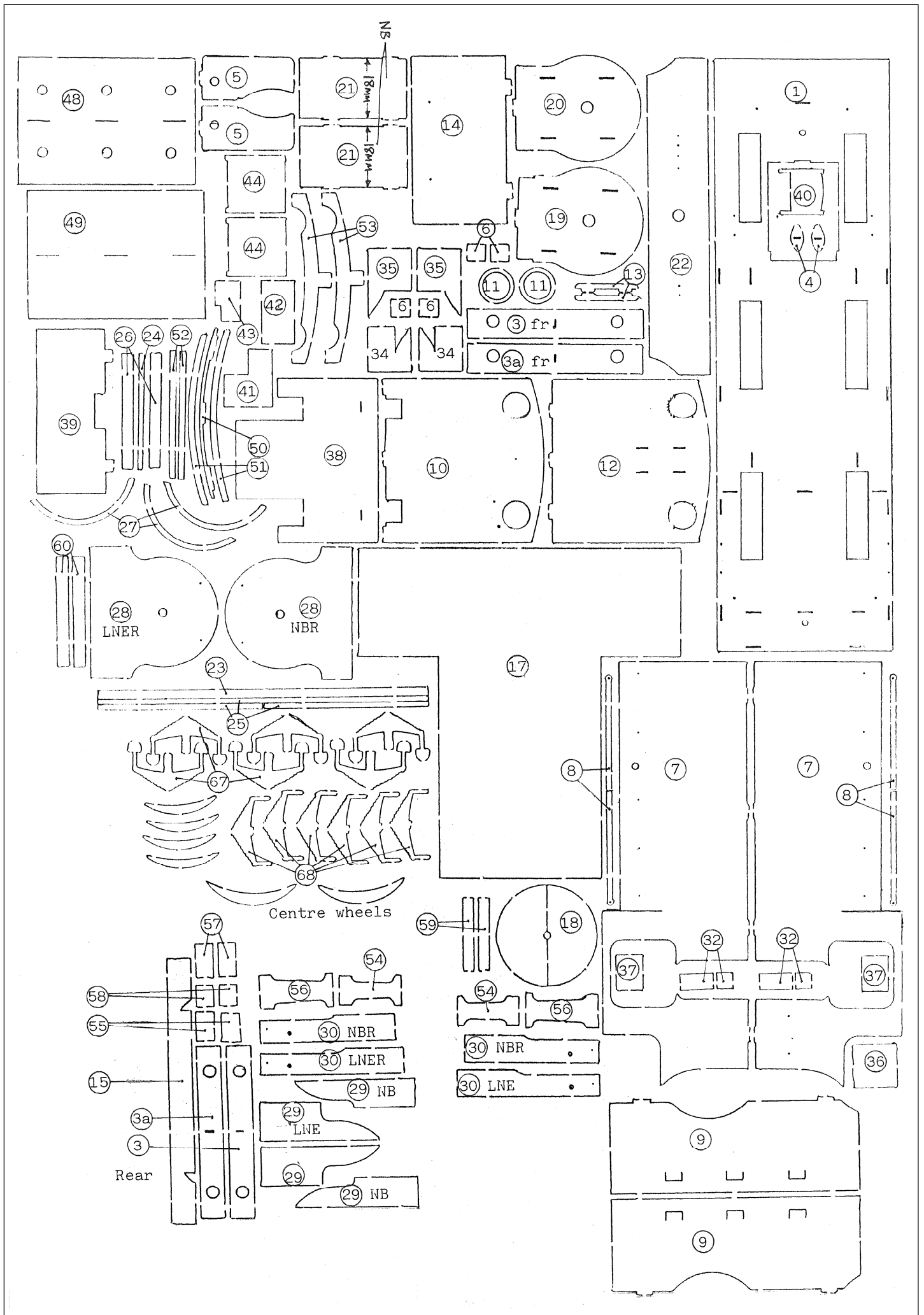
Showing Westinghouse pump, smokebox door and pins. Piano front fits centrally. Sandbox filler caps into larger hole. Note ballance pipe between tanks. tallow cup in side of smoke box. Also shows positions of all three pipes (if required).



If a Westinghouse pipe is needed, holes will be required in the cab face plate and smokebox side.





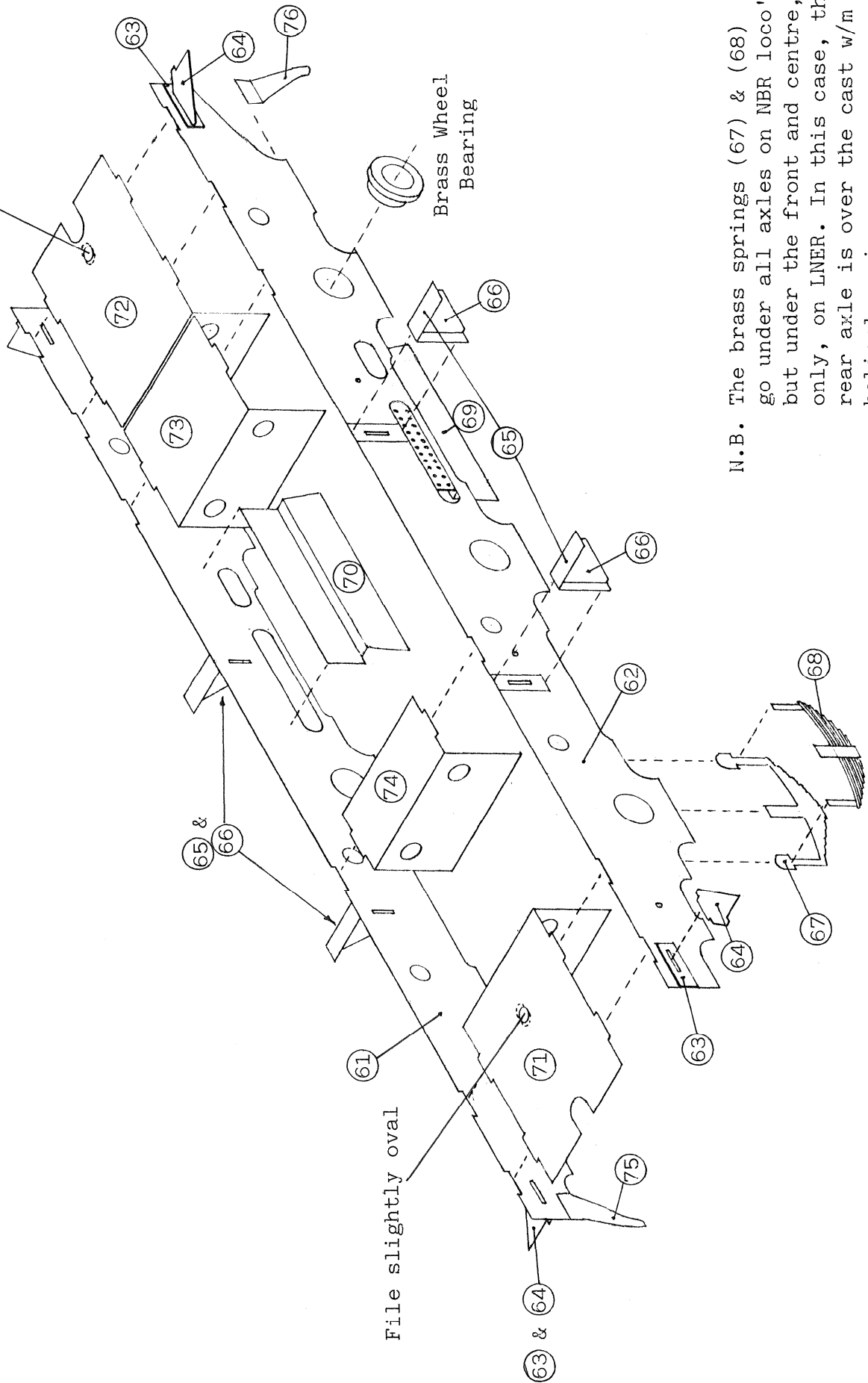


NBR/LNER CHASSIS

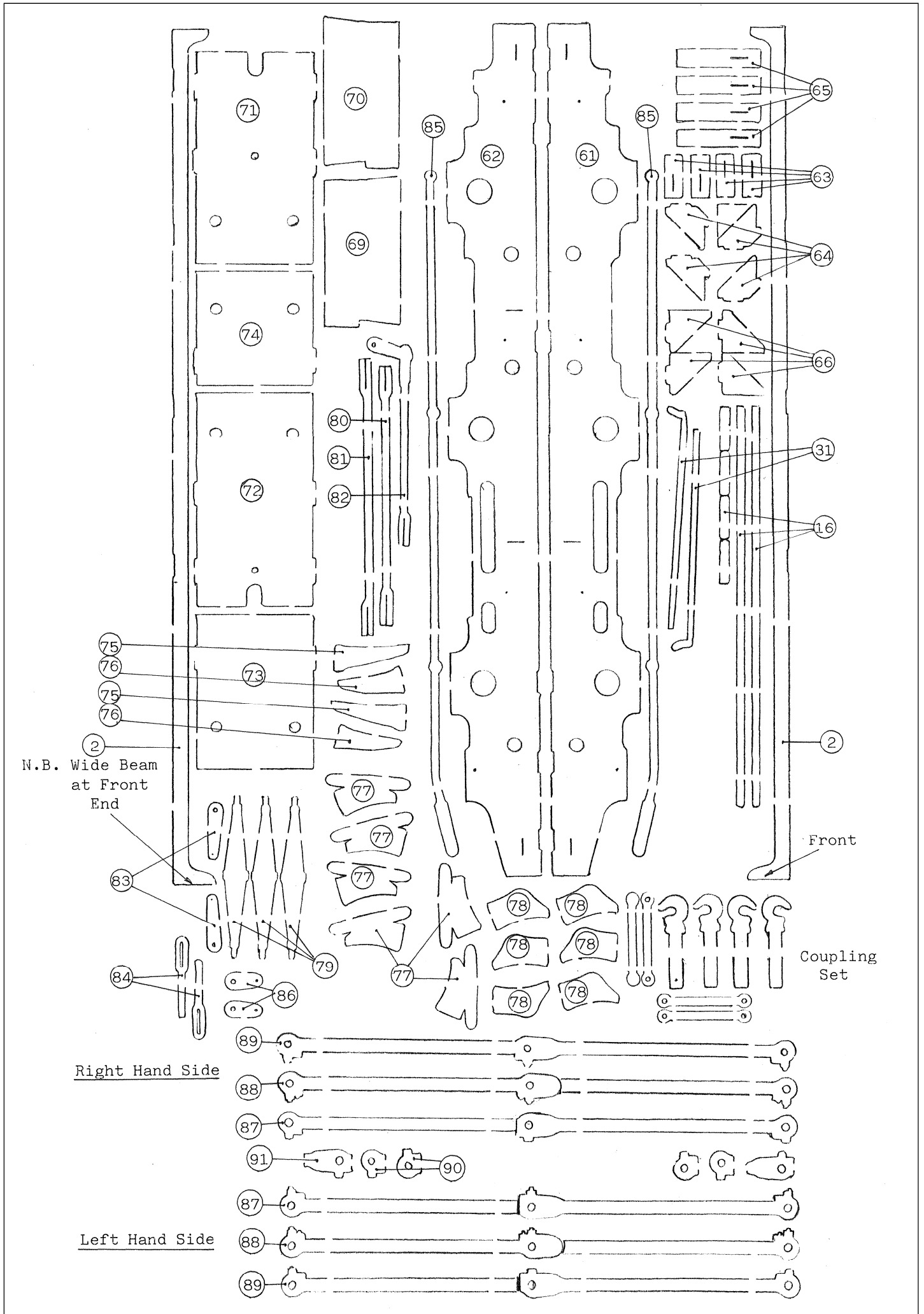
61. Right hand frame.
62. Left hand frame.
75. Front guard irons. These are out of number sequence but are better fitted now.
76. Rear guard irons. As above.
63. Buffer beam bracket angles.
64. Buffer beam brackets.
65. Side bracket angles. Bend to right angle.
66. Side brackets. Solder into 65, then onto frames.
67. Axle spring backs.
68. Axle spring faces. Solder to 67 then behind frames below axle holes. N.B. LNER loco's require a cast helical spring at the rear axle.
69. Left hand ash pan. Bend to shape and fit behind left hand frame.
70. Right hand ash pan. As 69 but reversed.
71. Front stretcher. Bend to right angle and fit between frames in the slots on the top edge. File the centre hole slightly oval.
72. Rear stretcher. File centre hole oval and fit as 71.
73. Second rear stretcher.
74. Second front stretcher.
- 75 & 76. See above.
77. Brake hanger.
78. Brake block. Solder to 77. Note left & right hand.
79. LNER Brake cross beams. These are not required on NBR loco's.
80. Front pull rod. Again, LNER only.
81. Centre pull rod. " " " Bend to avoid gear crown wheel.
82. Rear pull rod. " " " This is off centre to the right, an its position is such that the rear end is level with the position of the brake standard in the cab.
83. Brake linkage. Use both. These are carried on 1.2mm brass rod.
84. Brake standard pull rod. Solder top to base of 72, immediately under the brake standard in the cab.
85. Outside pull rods. NBR loco's only. To fit, omit 79 and replace with 0.9mm wire. Make sure they do not foul the wheels or shorting may occur.
86. NBR pull rod link. These fit at the rear of each pull rod, on the outside so be sure the 1.2mm wire is long enough to carry them. Brake linkage 83 & 84 are used as shown for LNER but minus 82. (& the other two LNER pull rods, 80 & 81)
87. Rear coupling rod sections.
88. Centre coupling rod sections.
89. Front coupling rod sections. Laminate 87, 88 and 89 together so that the front and rear halves pivot on the centre crank pin.
90. Coupling rod end bosses. Solder to each end of rod.
91. Coupling rod centre boss.

I assume you have already chosen the motor and gears, now all that is left is to decide on your current collection, wire up and test. Hopefully all is as it should be and you are happy with the outcome. This is the first loco kit completely designed by Majestic Models and, having built the sample, I think it safe to say the C15 (NBR/LNER) will soon be on its way to the etchers.

File slightly oval



N.B. The brass springs (67) & (68) go under all axles on NBR loco's but under the front and centre, only, on LNER. In this case, the rear axle is over the cast w/m helical spring.



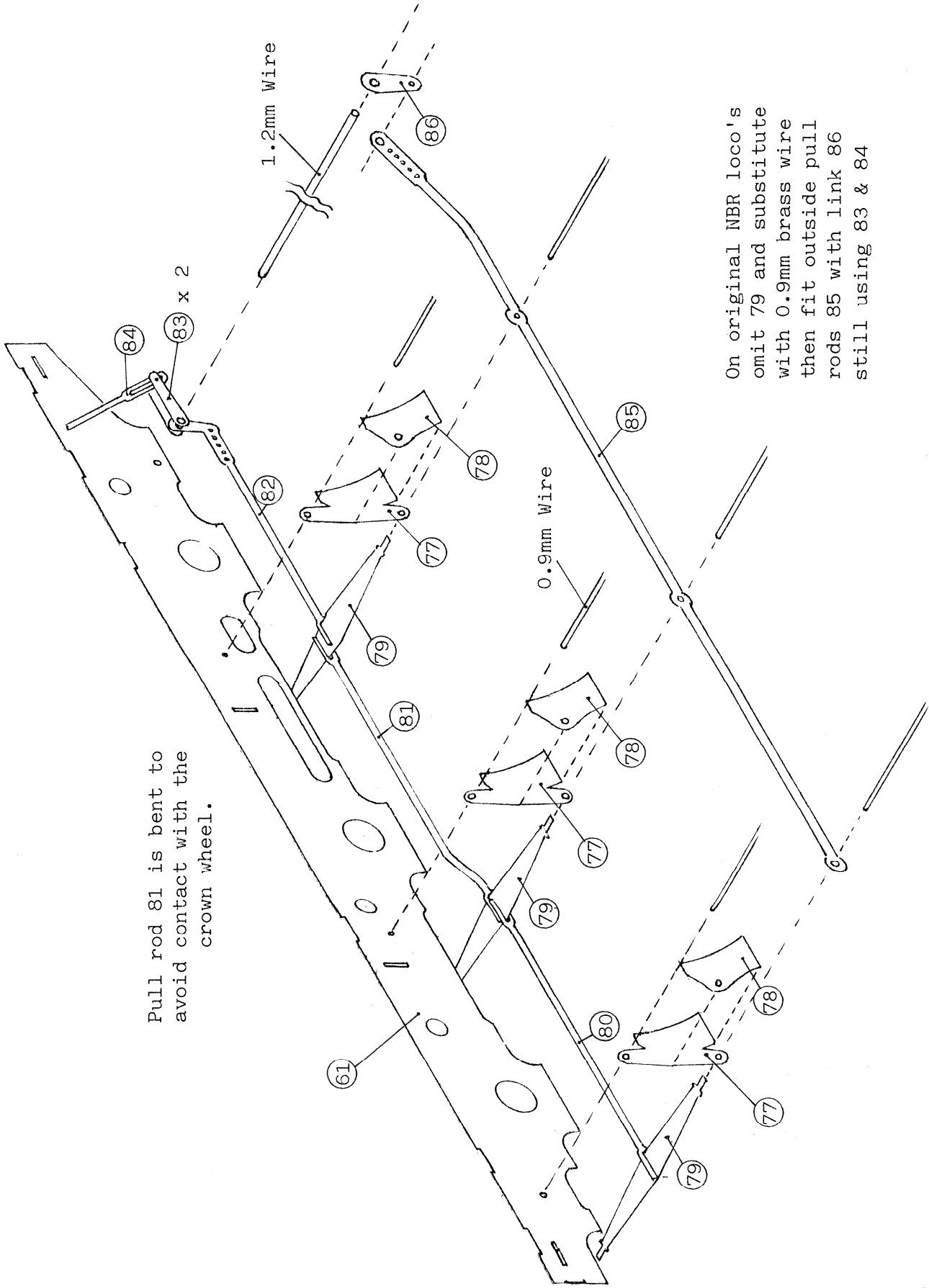
N.B. Wide Beam at Front End

Front

Coupling Set

Right Hand Side

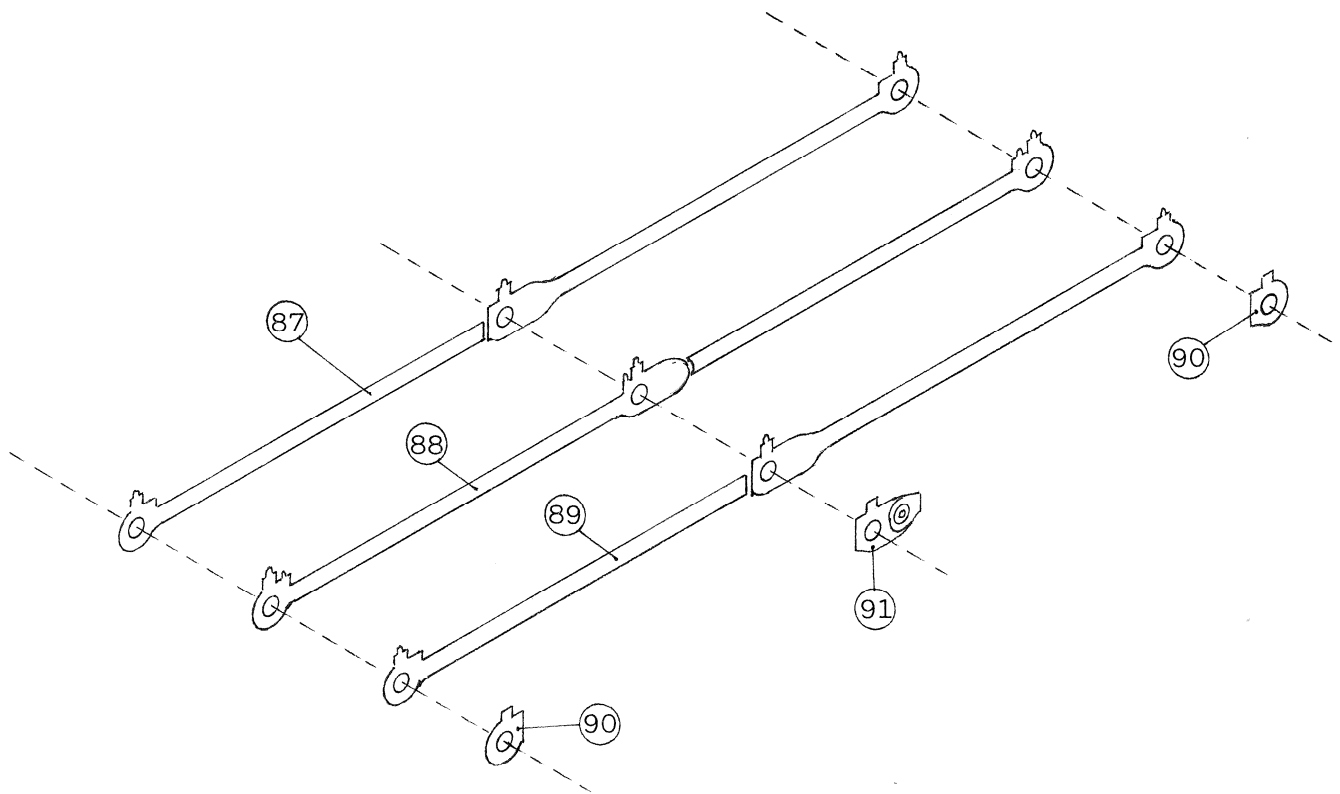
Left Hand Side



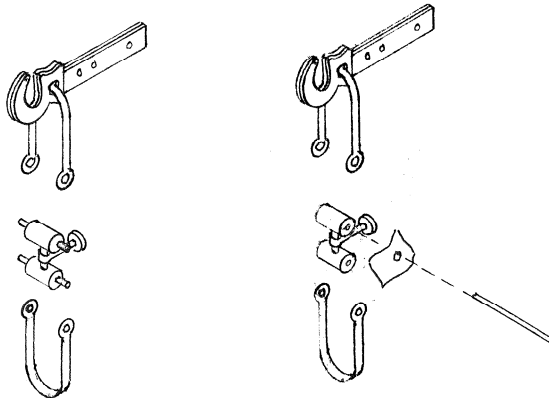
Pull rod 81 is bent to avoid contact with the crown wheel.

On original NBR loco's omit 79 and substitute with 0.9mm brass wire then fit outside pull rods 85 with link 86 still using 83 & 84

NEAR SIDE FRAME (62) HAS BEEN OMITTED FOR CLARITY.



Showing the left hand side, the right hand is a mirror image.



COSMETIC COUPLING

To make this coupling more usable you can cut off the bosses each side of the centre casting and drill through to take 0.9mm wire. Put a paper washer between casting and link and then solder link to wire but make sure the solder does not run through into the centre casting.

MAKE SURE YOUR MODEL REQUIRES A SCREW COUPLING BEFORE COMMENCING,
SOME J83's USED 3-LINK COUPLINGS.

