AIRFIX
CONSTRUCTION KIT

B.R. 0-4-0 SADDLE TANK.

BRITISH RAILWAYS
(LONDON MIDLAND REGION)
0-4-0 SADDLE TANK LOCOMOTIVE.

These locomotives were designed by Mr. J. A. F. Aspinall, Chief Mechanical Engineer, of the former Lancashire & Yorkshire Railway and first built at Horwich Works in November 1891, being intended for use in shunting yards and in the various docks connected to that railway.

The weight of these engines in working order is 21 tons 5 cwts, the diameter of the coupled wheels is 3 ft. 0¾ in. and have a tractive effort of 11,335 lbs.

Engines are now being replaced on British Railways by the more comfortable and efficient diesel locomotives.

The name "saddle tank" is given to this type of engine because of the position and shape of the water tank, which is placed over the top of the boiler much in the same way as a saddle fits on a horse.

It would be unfair not to refer to the hundreds of other small 0-4-0 tank locomotives of different designs employed not only on dock shunting but also at blast furnaces, steel mills, mines, and many other industrial plants.

One of the main features of their design is the short wheel-base enabling these engines to negotiate the sharp curves on the tracks where they have to operate.

These small saddle tank engines are considered to be the "ugly ducklings" of the steam locomotive family for they do not have the glamour nor the publicity of the powerful main line locomotives, but the valuable work they do is a credit not only to their designers but to the locomotive family as a whole.

YOUR AIRFIX MODEL

This 0-4-0 Saddle Tank Locomotive model embodies virtually all the detail and moveable features of the actual Locomotive and has been designed to fit on standard OO and HO track. (16·5 MM).

INSTRUCTIONS

In order to make this model work correctly, the following points should be observed.

(a) Notice that most parts are identified with a number or letter which is either stamped on the back, or in the case of small pins, on the ends.

(b) Examine pieces and remove any excess plastic with a special knife or razor blade.

(c) Use only Polystyrene cement when building the model, and apply only to the inside surfaces. Do not get cement on the hands, as you may smear and spoil the outer surface of the model.

(d) Special care must be taken when cementing pins into position, for no cement must be allowed to get on to the moving parts. To overcome this problem we recommend the following be adopted.

1. Deposit a small drop of cement on the end of a piece of wire or pin.
2. Push the end of the wire into the hole in which the pin must be fixed. This will leave a small deposit inside the hole when the wire is withdrawn again.
3. Place pin through the hole of moving part, and then push into cemented hole.
4. Study assembly instructions carefully to check which hole to cement.

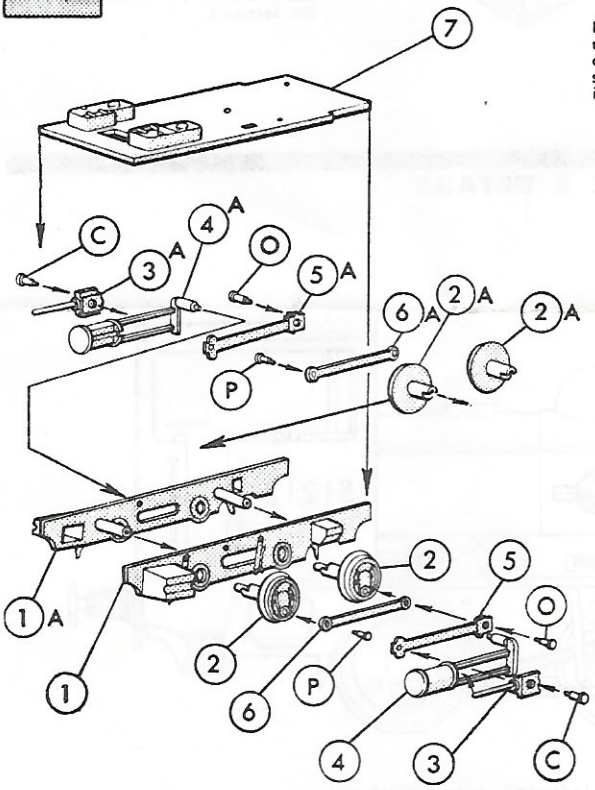
(e) It is best to have a "dry run", so that you become familiar with the location of all parts before cementing together.

(f) Study the painting instructions before assembly as certain parts are easier to paint before cementing.
Do not allow paint to come into contact with small pins of moving parts.

(g) Allow cemented parts ample time to dry. This will result in maximum strength of finished model.

N.B. FOR PAINTING USE "AIRFIX" PAINTS, FOR FIXING USE "AIRFIX" POLYSTYRENE CEMENT.

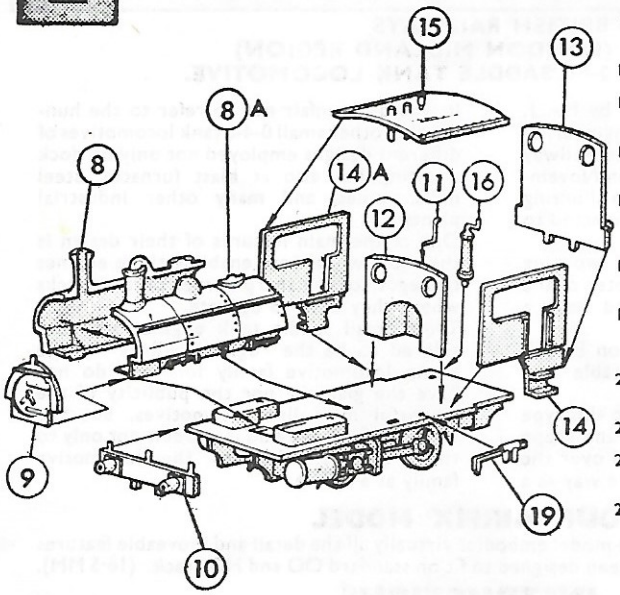
1 MAINFRAME ASSEMBLY



NOTE.—It is recommended that the instructions and exploded view are studied before cementing together. If it is wished to paint such details as pilot, wheels and rockets this is best done before assembly.

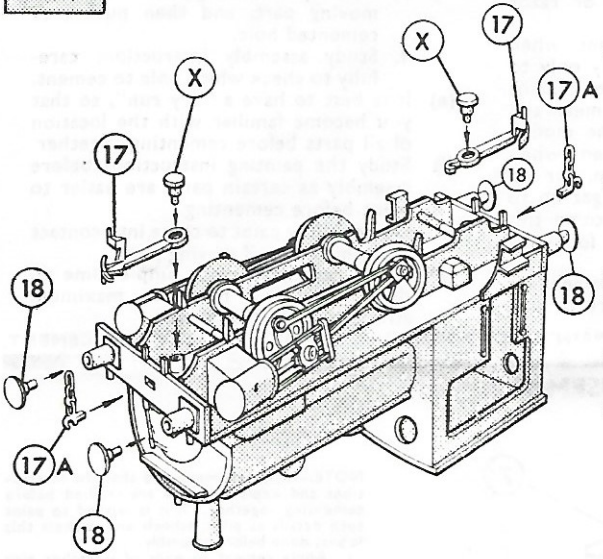
1. Apply cement to ends of stretcher pins inside right hand mainframe and press into corresponding locating holes in stretcher pins on left hand mainframe (1, 1a).
2. Insert the two driving wheel pin halves (2) through axles holes in mainframe, repeat with the two driving wheel socket halves through the other side of mainframe (2a).
3. Apply cement to pins on driving wheel pin halves and press both pairs of wheels together.
   NOTE THAT THE SHAPED AXLES INTERLOCK. CHECK THAT WHEELS ROTATE FREELY.
4. Place crosshead (3) into position outside and between the slide bars of left hand cylinder (4). Note that crosshead slides between slide bars and piston rod engages in slot on cylinder cover end.
5. Apply cement carefully to hole at T end of connecting rod (5) see note "d" of general instructions. Place cemented hole behind slide bars in line with hole in crosshead. Note that oil box on opposite end of connecting rod is to the top.
   Push pin (C) through hole in crosshead and press into cemented hole.
   NOTE THAT HEAD OF PIN IS FLUSH WITH OUTSIDE OF COUPLING ROD.
6. Similarly repeat operation 4, 5 on opposite side (3a, 4a, 5a and C).
7. Apply cement to crank pin hole of leading left hand driving wheel, place recessed hole of coupling rod (6) over cemented hole in driving wheel.
   NOTE THAT RECESS IS TO THE OUTSIDE.
   Push pin (P) through hole in coupling rod and press into cemented hole.
   NOTE THAT HEAD OF PIN IS FLUSH WITH THE OUTSIDE COUPLING ROD.
8. Repeat operation 7 on opposite side (6a, P).
9. Apply cement to location pin of left hand cylinder and slide bars to face of cylinder block on left hand mainframe.
   NOTE THAT THE CEMENT MUST NOT COME IN CONTACT WITH THE PISTON ROD GROOVE ON CYLINDER BLOCK.
10. Press cylinder, together with crosshead and connecting rod into position on left hand mainframe.
11. Repeat operation 9. 10. on opposite side.
12. Apply cement to crank pin hole in rear left hand driving wheel. Push pin (0) through remaining holes of connecting and coupling rods and press into cemented hole. Repeat with opposite side, check that wheels and rods operate freely.
7. Apply cement to top edges of mainframe assembly and press into position under footplate (7) NOTE THAT THE ENDS OF THE FRAMES ARE FLUSH WITH ENDS OF FOOTPLATE AND LOCATION RIBS ON UNDERSIDE OF FOOTPLATE FIT INSIDE MAINFRAMES.

2 FOOTPLATE & BOILER ASSEMBLY



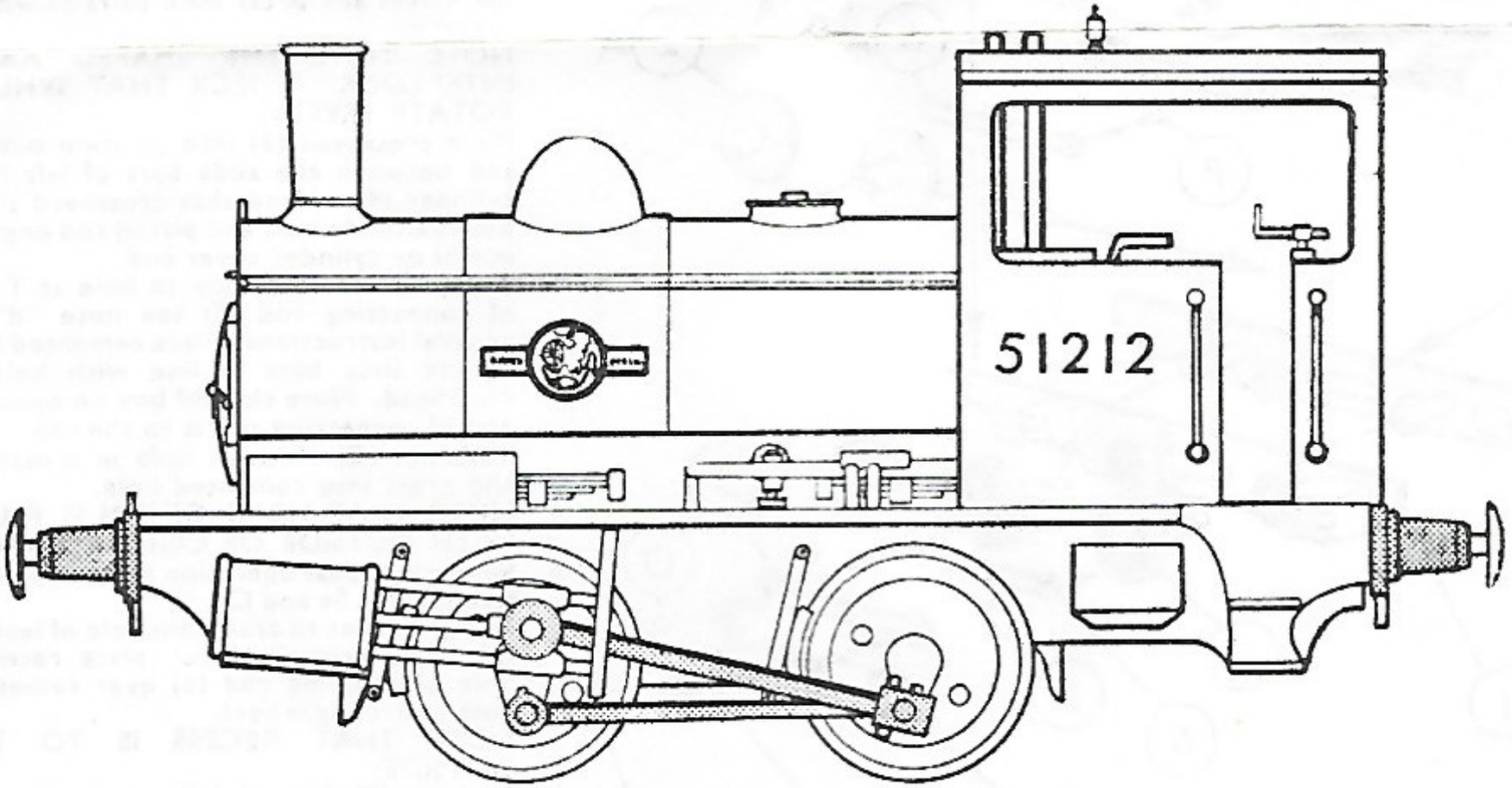
14. Cement two halves of boiler together (8, 8a).
15. Apply cement to edge of boiler front (9) and press into position in front opening of boiler.
16. Cement boiler assembly to footplate, lug on front of boiler fitting into cut out at front of footplate.
17. Apply cement to front edges of footplate and mainframes and press front buffer beam (10) into position. Note the 3 lamp irons are to the top.
18. Cement pin on regulator handle (11) into locating hole above fire box doors on cab front (12).
19. Apply cement to rear edge of boiler and bottom edges of cab front and position cab front on footplate cab face butting against rear of boiler.
20. Cement cab sides to footplate, cab front steps on cab sides fitting into cut outs on each side of footplate (14, 14a).
21. Cement handbrake (16) into hole at rear end of footplate inside cab.
22. Cement cab back (13) to rear of footplate and between rear of cab sides, check cab assembly is square.
23. Apply cement to top edge of cab assembly and press roof (15) into place. NOTE that safety valves on roof are to the front.

3 BUFFER & COUPLINGS



24. The desired coupling should now be selected. NOTE that in addition to scale coupling hooks for non working models a working "buckeye" coupling is provided. If desired the "peco" coupling can be employed, in this case the stem of the pivot pin should be shortened to suit.
25. If a working coupling has been selected, insert the pivot pin (X) through hole in coupling and cement into the locating bush beneath the underframe. ENSURE NO CEMENT COMES INTO CONTACT WITH COUPLING. (17).
26. Repeat procedure for second coupling.
27. If non working couplings have been selected cement the locating lugs of the scale coupling hooks into central slots in buffer beams. (17a).
28. Cement buffer heads (18) into locating holes in buffer stocks on front and rear buffer beams.
29. Cement locating pins on reversing rod into locating holes in left hand side of footplate in front of cab face (19). See Section 2.

4 COLOUR SCHEME & DETAILS



30. Apply transfers as indicated on colour scheme drawing. NOTE THAT THE LION ON THE BRITISH RAILWAYS TOTEM FACES TO THE FRONT OF THE LOCOMOTIVE.

RED Front and rear buffer beams, buffer stocks, connecting and coupling rods.

SILVER All handrails, regulator and cab controls, handbrake handle, buffer heads, smoke box door handle and hinges.

BLACK All remaining parts.

RED

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