

Lynton & Barnstaple Railway Manning Wardle Locomotives To 16mm, 7mm and 4mm scale — by Fred Game

BUILT by Manning Wardle of Leeds, the three original 2-6-2T Lynton and Barnstaple locos were supplied to the line between late 1897 and March 1898 — despite the Amalgamated Society of Engineers' strike which threatened to delay their construction — at a cost of £1100 each. Maker's numbers were 1361, 1362 and 1363, and upon entering service they, were named *Yeo*, *Exe* and *Taw* respectively after local rivers in the area.

Originally the L & B had agreed to accept a tender from the Brush Electrical Engineering Company for three locomotives at a price of £880 each, but despite the incredibly low cost, for undisclosed reasons the contract did not materialise.

Although minor differences developed as the locos aged (*Exe* had its ejector pipe raised well clear of the boiler during its early existence) all three were always maintained as a class, unlike those which ran on other narrow gauge lines.

The locomotives had outside mainframes and inside-framed pony trucks, the coupled wheelbase being six feet six inches and the total wheelbase seventeen feet nine inches. Spoked driving wheels of two feet nine inches were fitted; the pony wheels were of disc type with a diameter of two feet.

The two outside cylinders were each of 10½in bore by 16in stroke, and steam — at working pressure of 160lb/sq in — was fed to them via piston valves controlled by outside Joy gear. Although not a common fitment to narrow gauge locos, this form of valve gear had previously enjoyed quite expensive popularity in this country, particularly on the LNWR, but for inside cylinder applications. However, the compact nature of the gear proved ideal where small driving wheels dictated that the motion would be mounted close to ground level and, on the L & B at least, it was very reliable in service. As built, large motion covers were fitted with an inspection hatch in the centre. Within a few years of introduction it became normal practice to run with these hatches open. Eventually they were removed altogether and the apertures considerably enlarged.

A more radical modification was that effected to the cabs, which originally had a forward side window ahead of the spectacle plate that, coupled by the overhang of the cab roof, formed a pocket and collected steam — obscuring the driver's vision somewhat. The side windows were therefore cut back and the roof moved rearwards to enclose the rear bunker. As such, the rear bunkers were not favoured by the crews, limited space on the footplate restricting the swing of the shovel. Coal loading was normally restricted to the hoppers provided to either side of the fire box.

Grate area of the fireboxes was 8.85 sq ft and the boilers had a total heating surface of 383 sq ft. Tractive effort at 85 per cent working pressure was 7,269lb.

The side mounted water tanks had a combined capacity of 550 gallons.

During the entire life of the railway, all the locomotives — including the Baldwin *Lyn* and the Manning Wardle (manufacturer's number 2042) *Lew*, which was introduced by the Southern in 1925 — ran with their chimneys towards the Lynton end of the line. One report does record that *Taw* was turned on the Pilton turntable and ran facing the other direction for a couple of days, but this was the only exception.

Because of the above, the choppers on the rear Norwegian couplers were removed and the ones on the front were chained up when not in use.

Other modifications were small capuchons which appeared on *Yeo* and *Taw*'s chimneys in the mid 1920's plus the addition of steam heating pipes; a programme which was finally completed by 1933, only two years before the line's closure.

Throughout their lives the locomotives were always immaculately turned out, with polish worked into a fish-scale pattern on the side tanks and the brass dome, chimney cap and safety valve gleaming. L & B livery was dark emerald green with a black border and orange lining. Below the footplate a reddish-brown was used and the tank tops, smoke box, cab roof and chimney were black. Headlamps and buffer beams were painted in vermilion.

When the Southern took over, the livery was retained for a time but the brass makers' plates were moved from the cabsides to the rear to make way for new oval plates carrying the SR numbers. These were E759, E760 and E761 for *Yeo*, *Exe*, and *Taw* respectively.

As already mentioned, in 1925 the Southern added a further Manning Wardle which adopted an out of series number from an Adams 02 loco shipped to the Isle of Wight — E188.

Named *Lew*, this engine had full Southern livery, which eventually spread to the other three. Maunsell olive green with black borders and white lining replaced the emerald and orange and the underframes became black. Twelve inch high numerals took the place of the brass cabside plates and 'Southern' in six inch yellow letters stretched out over the side tanks just above the name plates. Interestingly, only *Lew* and the Baldwin ever carried their numbers on the buffer beams as well.

Structurally, *Lew* closely resembled the originals. Following the experience gained with them, the cab dispensed with the rear

bunker and had a smooth face to the spectacle plate. The right-hand pannier bunker had coal rails fitted and the safety valves had shorter columns. Motion covers resembled little more than drip-trays. The makers' plates re-appeared on the cab sides, but this time to the rear of the access doors. Four ventilators surmounted the roof.

When the line closed only *Lew* survived being sold for scrap. She was bought — for £50 — and shipped off to Brazil to work on a plantation. It is not known whether she still exists or not.

The Locomotives in Model Form

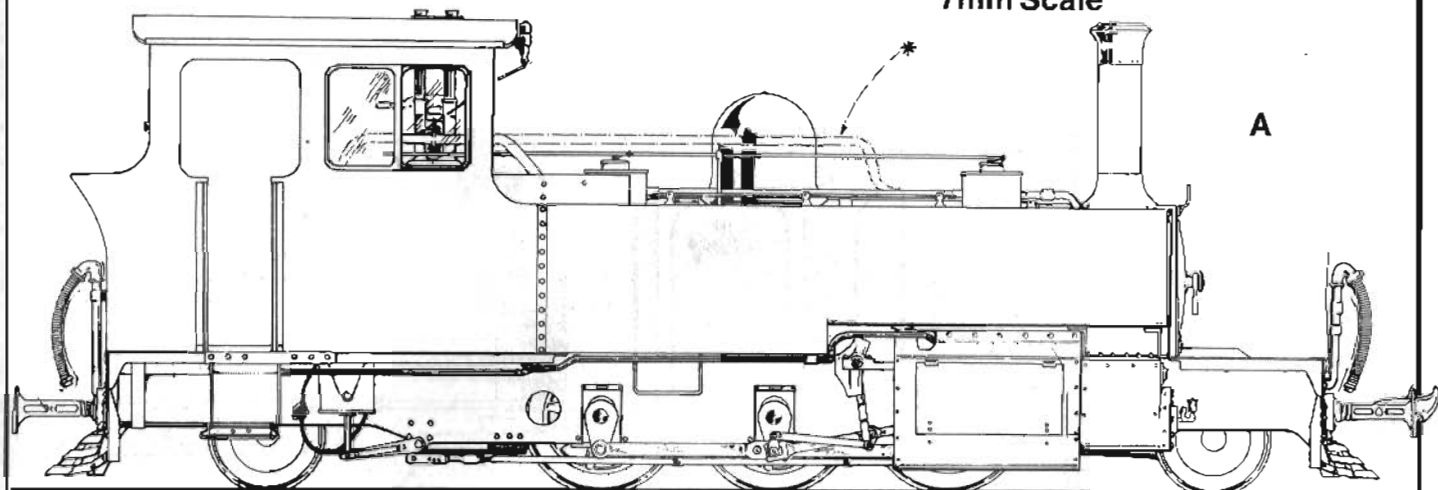
In the mid seventies *Stenning* introduced a kit to 4mm scale, representing *Yeo*, *Exe* or *Taw* as they appeared in the later years. This kit, in white metal and designed to fit the Minitrix N205 2-6-2 chassis, is still available under the *Weald* banner with improved rivet detail. Although, out of necessity, the chassis chosen is unprototypical — having inside frames and incorrect valve gear — a pleasing model results from careful assembly and a little work at super detailing. If you look back to our April '82 edition (back-numbers are still available) we showed how an outside-framed chassis could be fitted, as well as one kit in course of adaptation to represent number 188, *Lew*. *Chivers* have now introduced a kit of the latter loco, but we have not had the chance to inspect it ourselves. It also makes use of the Minitrix power unit.

At a price, there is a ready to run live steam model with radio control, to 16mm scale available from — we think — *Gosling Locomotives*. From the photographs we remember seeing, it was to a very high standard indeed but obviously such levels of workmanship have to be paid for!

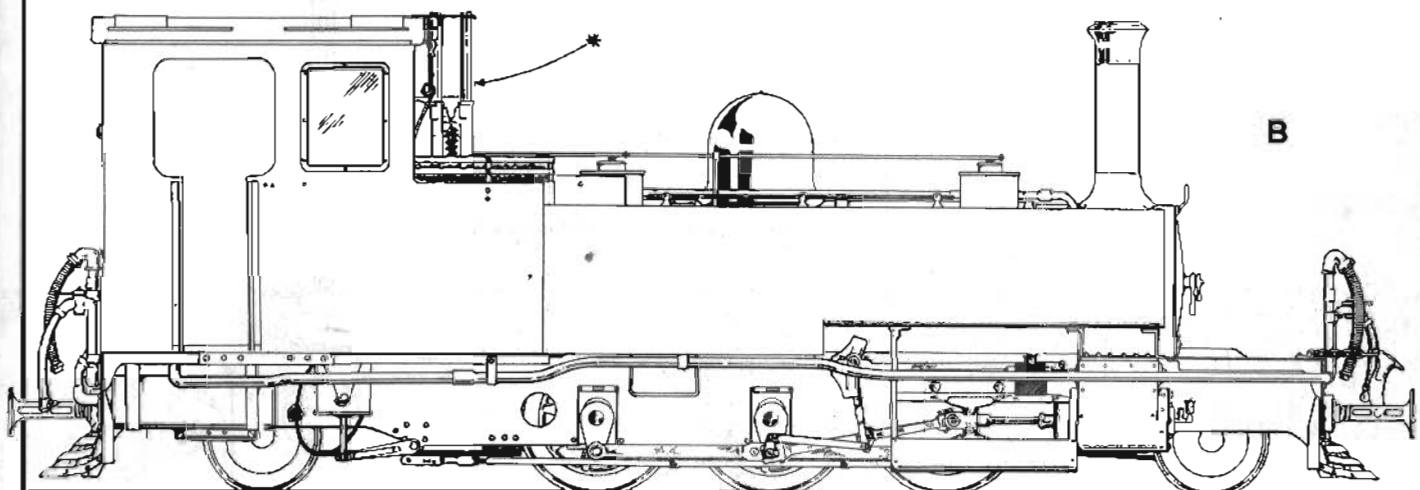
As this class of loco features amongst the editor's all time favourites, there is a strong chance that sooner or later a model of one of them will appear — most probably to 16mm scale — but more likely with electric rather than steam propulsion. After all, one must have something to haul those handsome *Tenmile* L & B vans and wagons!

Bearing in mind the growing support for 016.5 and the general popularity of the Lynton and Barnstaple, we would have thought that there was an obvious opportunity for one of the more enterprising small manufacturers to offer a model in kit form for 7mm scale, although, once again, an unprototypical chassis might have to be accepted if it were to be based on a proprietary unit. However, extended axles for outside cranks are available, so a conversion need not be too difficult.

7mm Scale



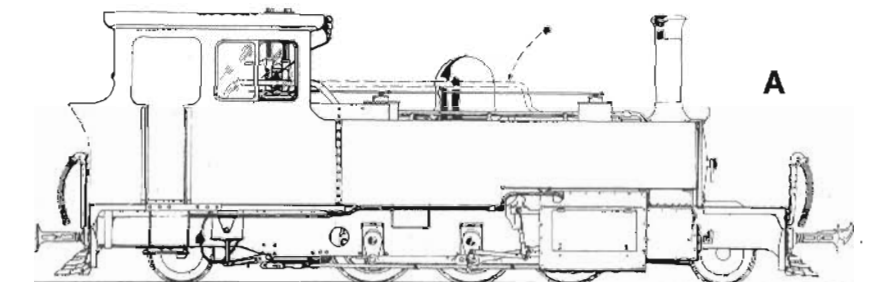
A



B

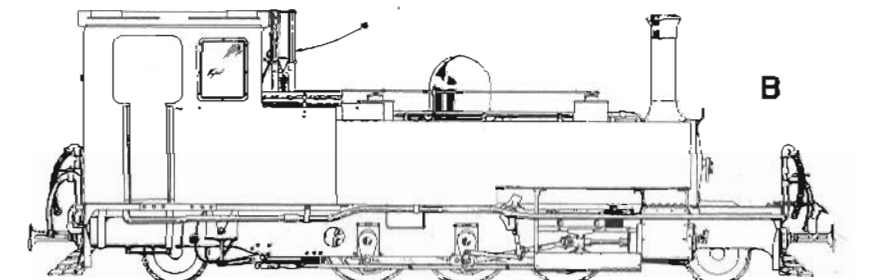
A — Manning Wardle 2-6-2T, as supplied for the opening of the line with motion covers in place. * — indicates the position of the vacuum ejector pipe for *Exe* only — this was later repositioned as per the remainder of the class.

4mm Scale

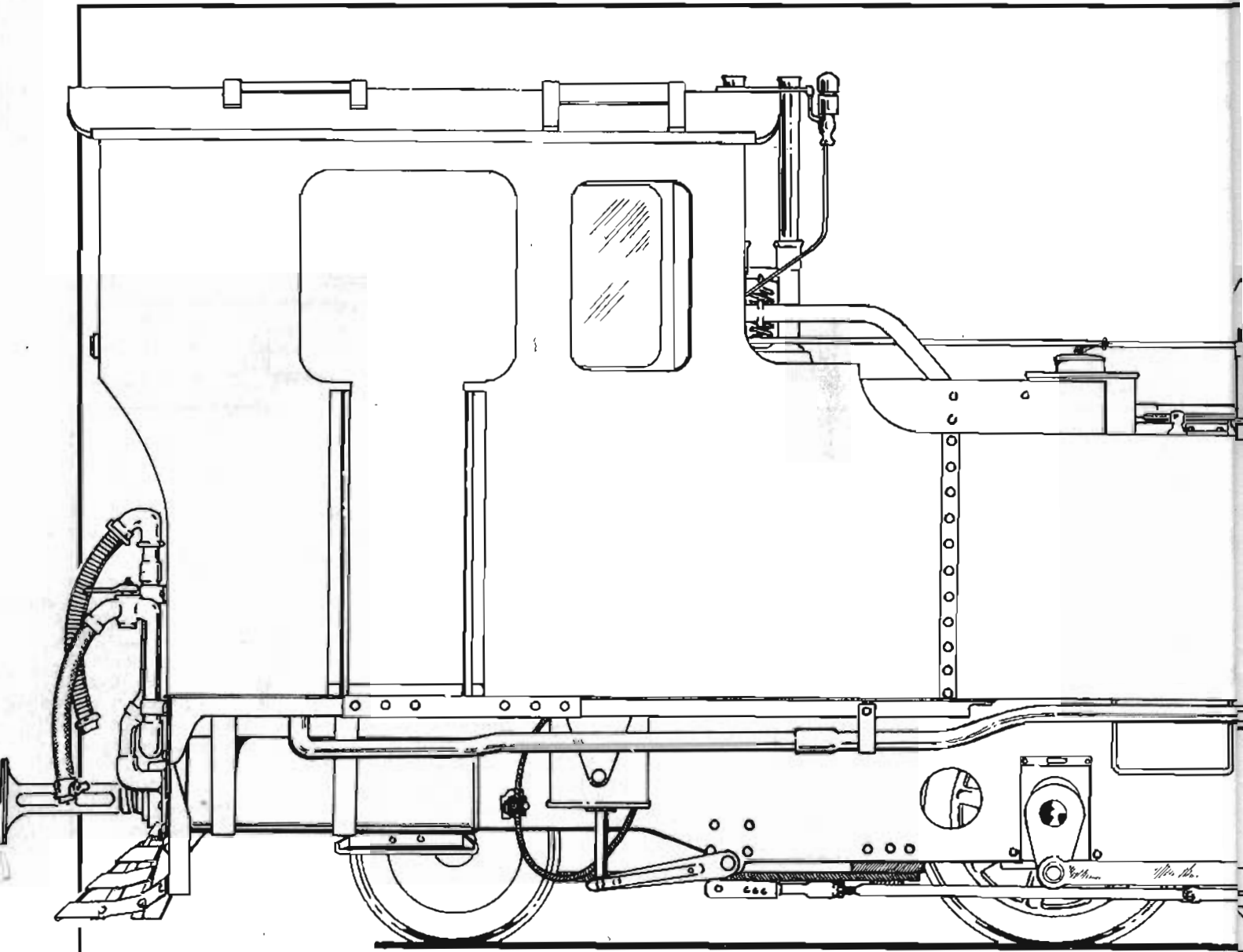


A

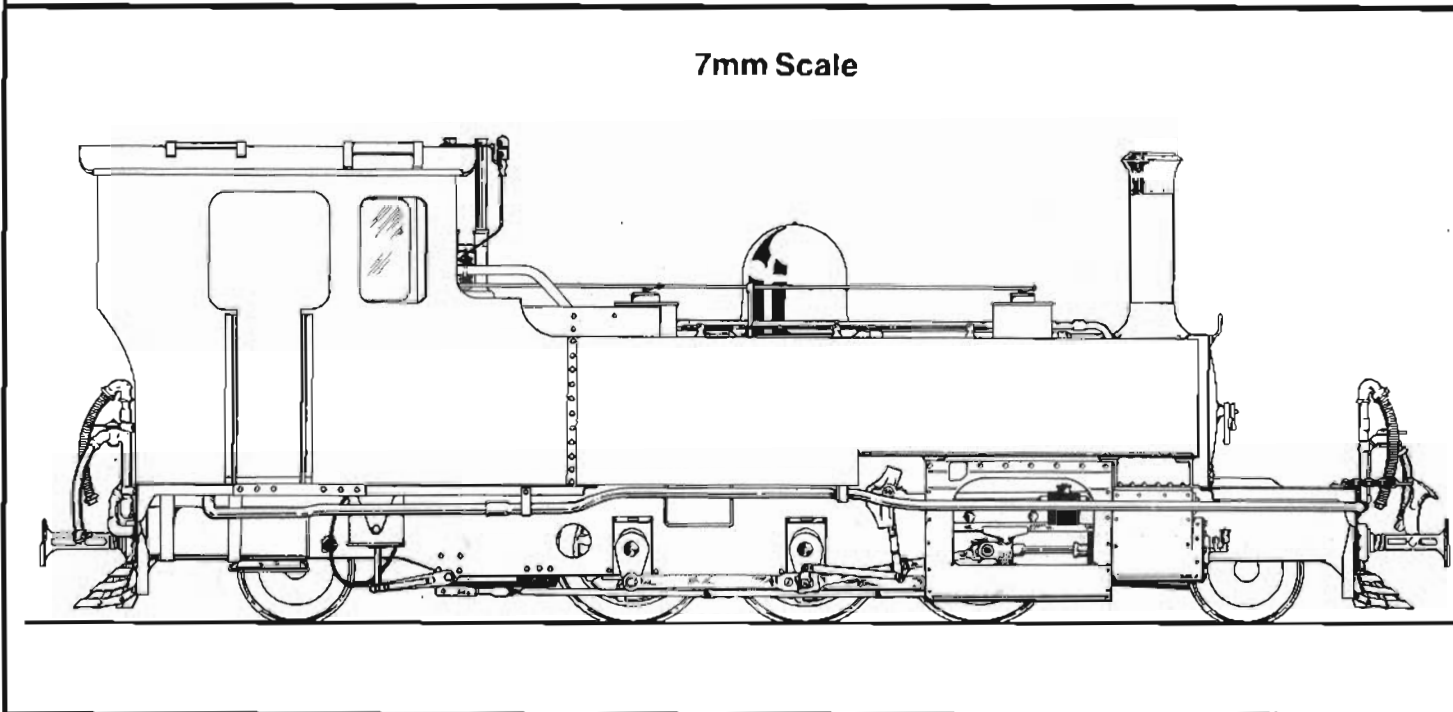
B — *Lew*, No 188, with steam pipes and safety valve extensions*. These were not fitted when the locomotive was first introduced. Note that the coal rails were on the right-hand bunker only, the left side had plain steel sheeting.

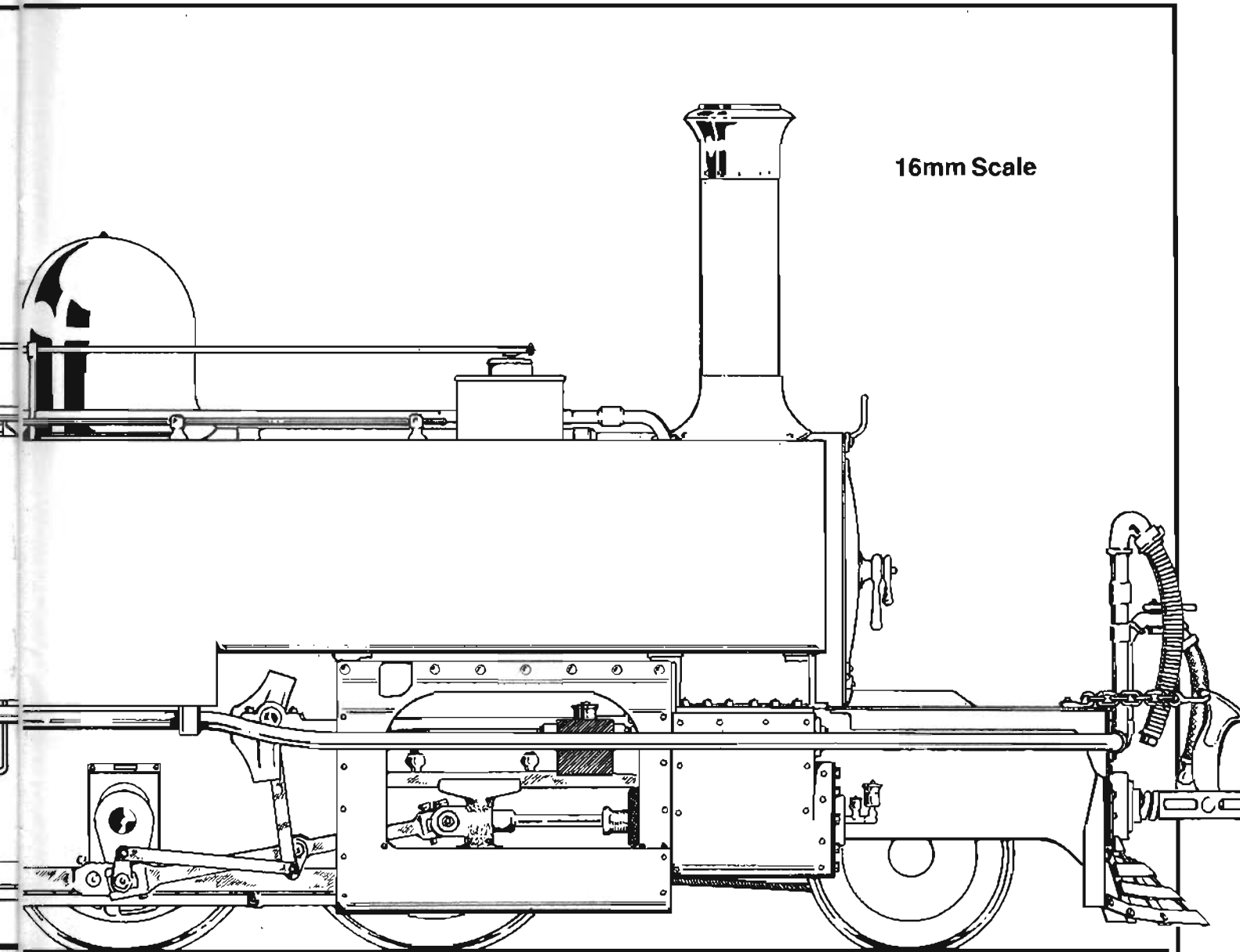


B



7mm Scale



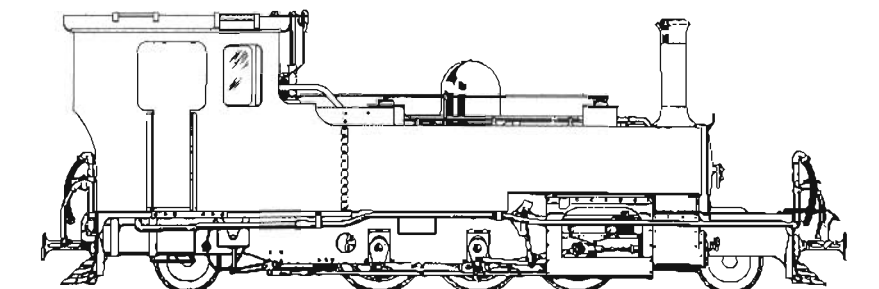


16mm Scale

Original locomotives in final condition
with steam heating pipes and enlarged
motion cover apertures.

For space reasons we have had to hold
over the other elevations and detail
drawings until next month!

4mm Scale



Lynton & Barnstaple Railway Manning Wardle Locomotives

— by Fred Game

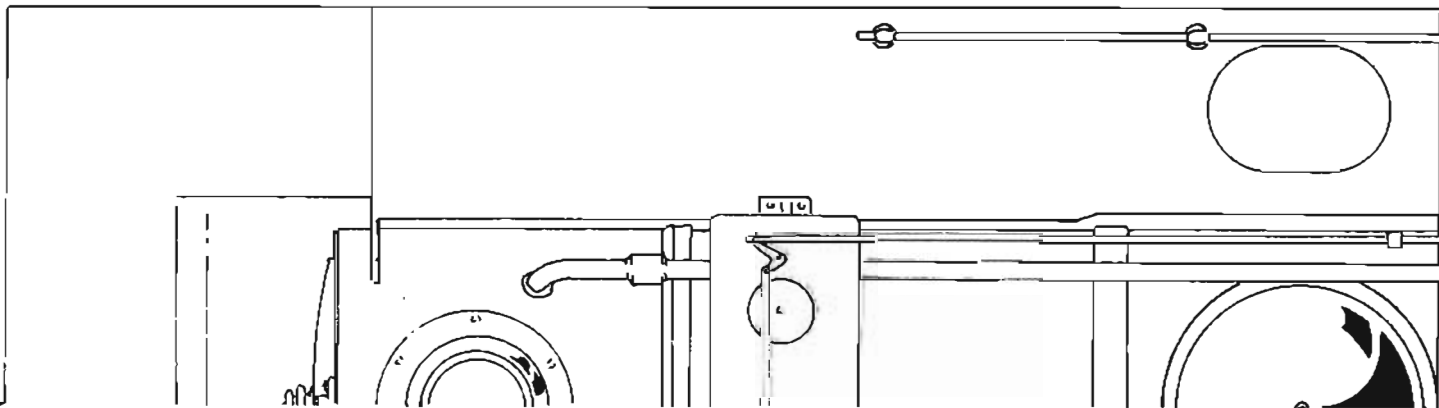
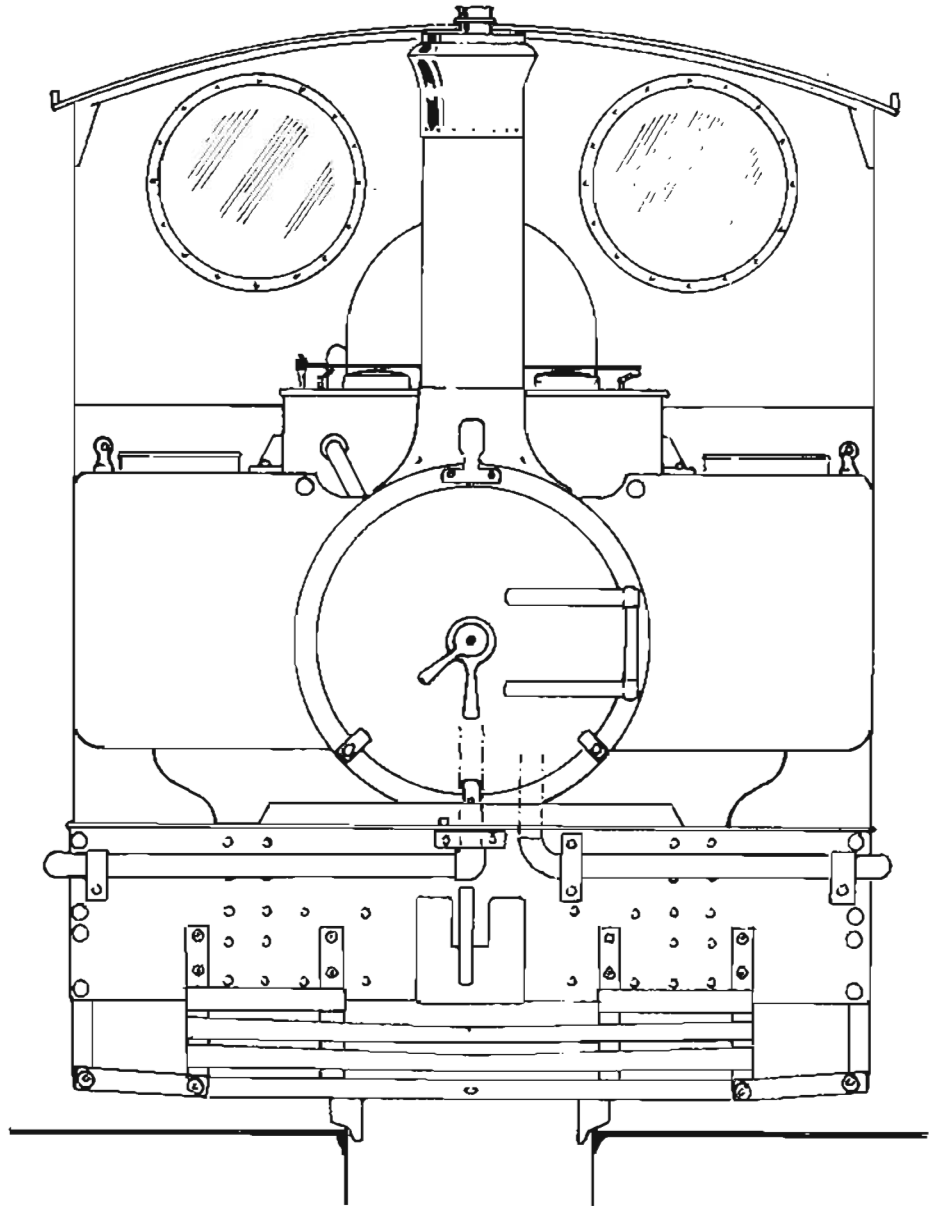
AS PROMISED last month, here are the front, rear and top elevations of the L & B Manning Wardles, along with a keyed livery diagram. We have also included examples of the works and SR numbering plates, as well as detail drawings of the nameplate style. If our memory serves us correctly, the latter — for *Exe* or *Yeo* — used to be available in 4mm scale from Model Railways, Kings Cross. Unfortunately, the words and numberplates are a different matter but, if one of our readers knows of a manufacturer producing these for any scale, we would appreciate the information.

Just after we had gone to press on the April issue, our friends at Greenwich, whose layout *Towyn* was featured in March, turned up some dyeline prints which included a copy of the Manning Wardle works drawing. Whilst this would have been a fantastic help during the preparation of our own plans, it was reassuring to compare them and discover that there wasn't any disparity between the two.

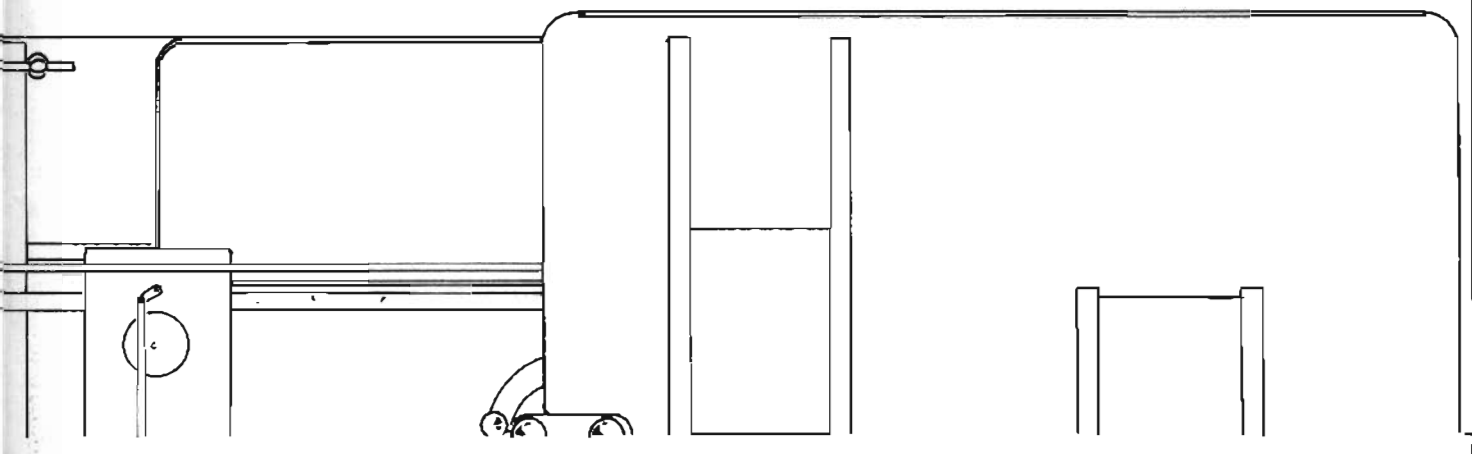
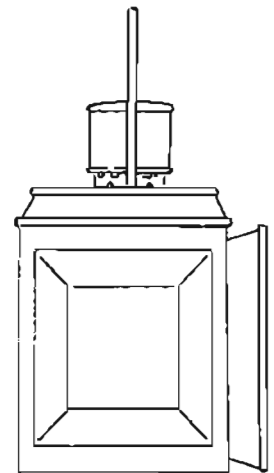
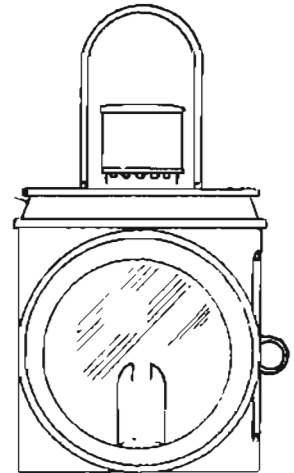
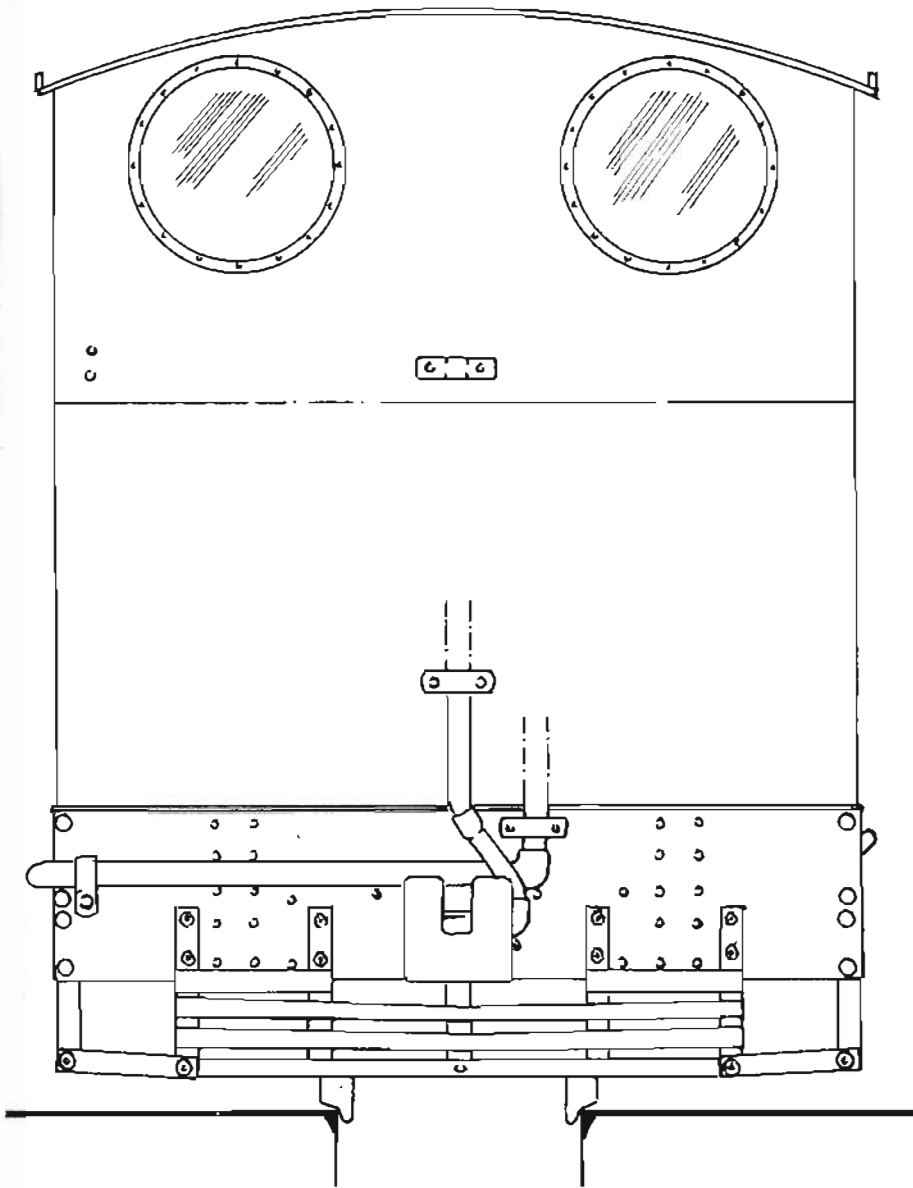
However we did make one error, and that was to state that Gosling produce a 16mm live steam version of *Taw*. It is, in fact, Archangel who manufacture the model we had in mind and we sincerely hope that we will have the chance of inspecting one at close quarters some time soon. Out of interest, Gosling have reproduced the Glyn Valley Tramway *Sir Theodore* for 16mm live steam — the same loco that we have built for 009 which will be featured next month.

STOP PRESS!

We now have details of the backhead layout and will include a drawing of the cab internals next month.

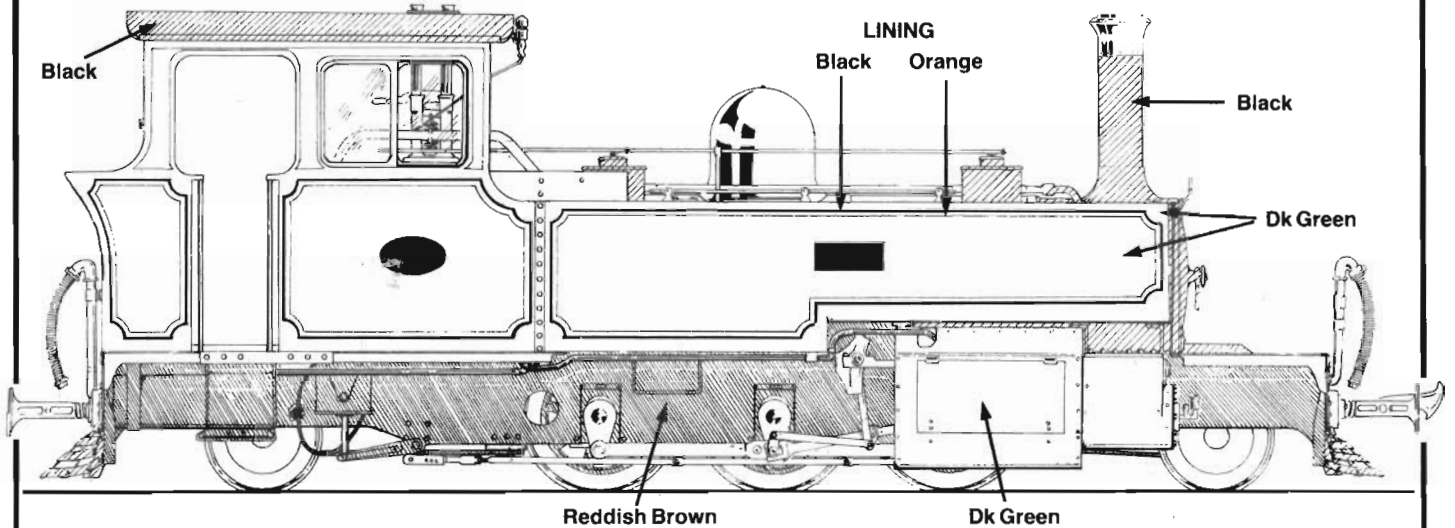


These drawings are reproduced full size for 16mm scale, with the exception of the name, builder's plates and lamp which are twice size. Vacuum and steam heating pipes have been omitted for clarity.

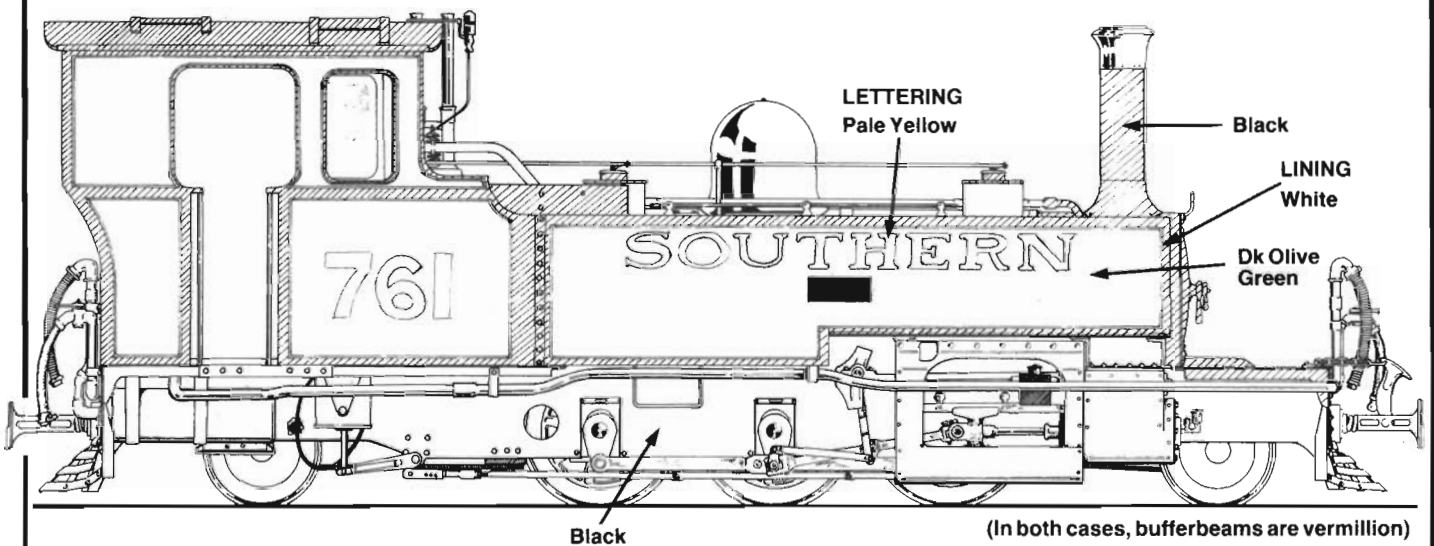


LIVERIES

Under L & B ownership

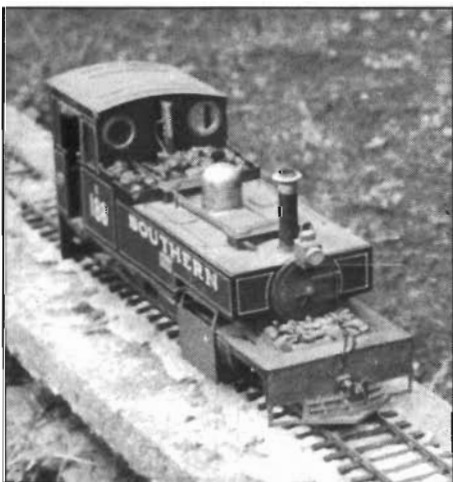


In Southern ownership



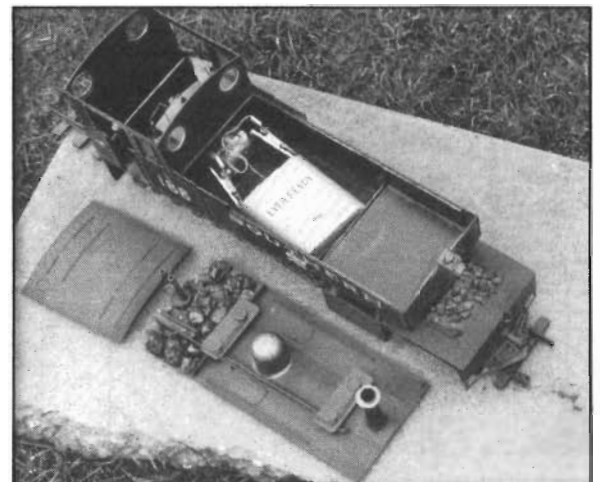
A MODEL IN 16mm SCALE

Dave Rowlands sent us these pix of his plasticard built, battery powered model of 'Lew.'



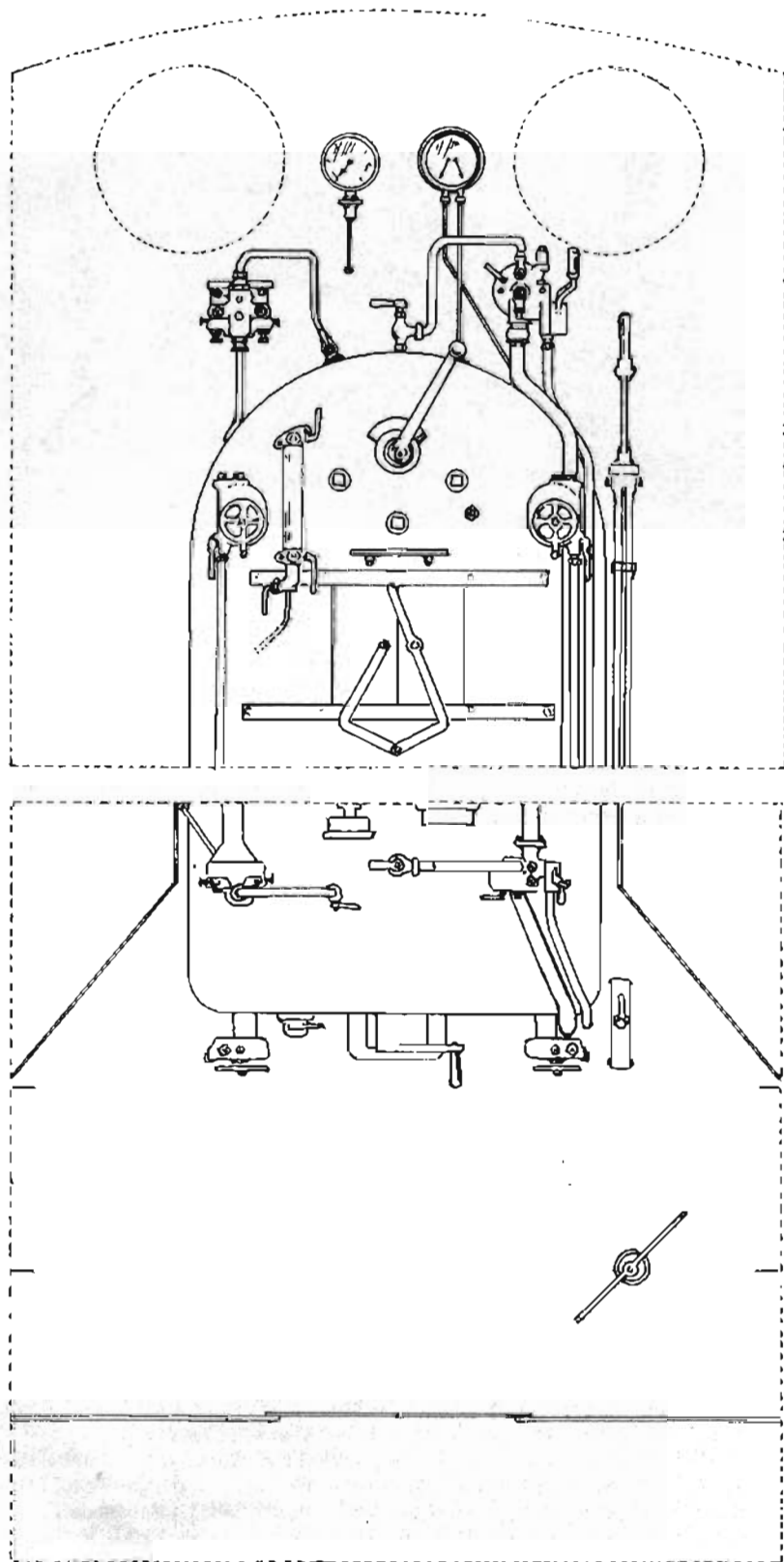
Built for less than £5.00
L&B 2-6-2T 'Lew' on 32mm track,
based on Triang 0-6-0 battery
chassis (s/h £4.00). Body of
0.060in styrene sheet. Chimney is
a thermometer case; dome the
rubber 'shoe' for a chair foot.

Her innermost secrets revealed
a simple 4½V flat cell provides
enough 'oomph' for an afternoon's
continuous running. Haulage is
limited though to 3-4 light vehicles.



Lynton & Barnstaple Railway Manning Wardle Locomotives

Cab Drawings to 16mm Scale — by Fred Game



IN order to prepare these drawings we must thank a number of our readers who were kind enough to submit rough sketches, traces and written descriptions which all helped to piece together where the main items were located — and the form they took.

However, we must point out that one or two assumptions have still had to be made and we apologise in advance should anyone turn up additional information that reveals any discrepancies.

Returning to the drawings themselves, a few points that may be of interest. In her early years, *Exe* ran with her ejector pipe raised well clear of the boiler. Although it still passed through the cab front in the same place, we have reason to believe that the ejector brake control (just below the right-hand spectacle) was positioned further back in the cab. Similarly, we are uncertain how far in from the cab front the Wakefield lubricator (beneath the left-hand spectacle) was located. The left-hand gauge is for boiler pressure the right for vacuum. Note also that there is only one water gauge glass!

The flooring was wooden planks, running crosswise, raised about an inch or so above footplate level on battens.

When the cabs themselves were modified, the partition in front of the coal space was retained, initially at least. One of our readers thinks it was removed in the mid-twenties on all three locos (*Lew*, of course, never had a rear bunker) — perhaps someone else knows for sure?

Now that our coverage of the Manning Wardle locomotives is complete, our attention will be turned to some of the coaching stock. However, can we repeat our plea to anyone having any unpublished photographs to contact us and so assist our further coverage of this most interesting line.

More L & B next month . . . As we put this issue to bed we hear that at least one manufacturer is planning a 7mm scale model of one of these locos . . . more next month on this!