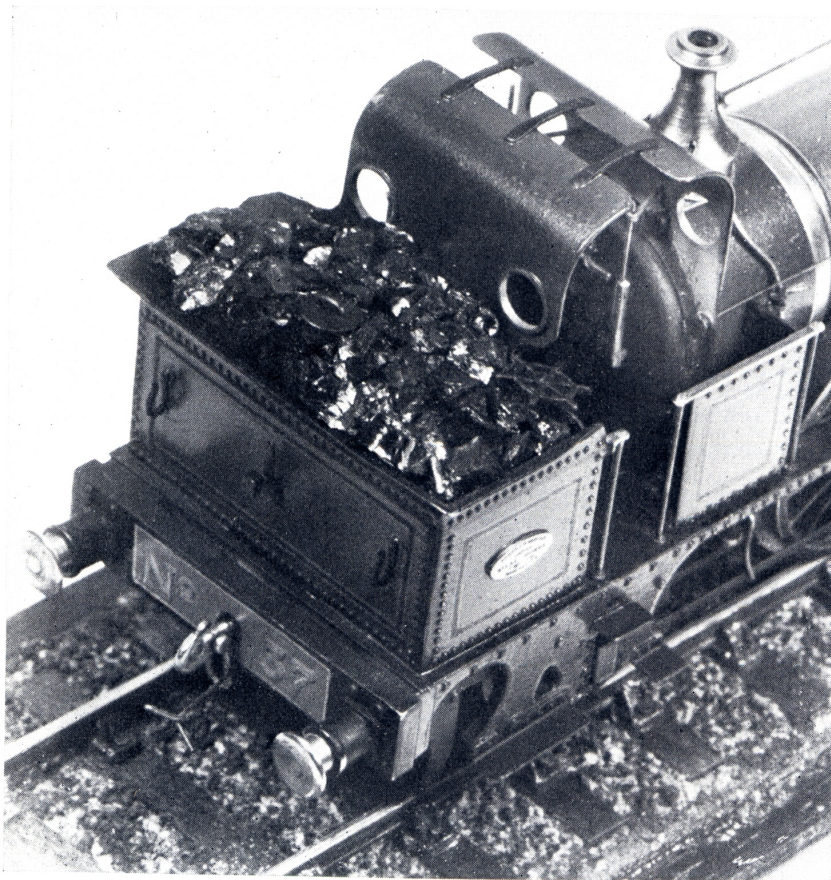


# FURNESS RAILWAY No. 37

AN EM GAUGE MODEL BY  
ROSS POCHIN, PRESIDENT OF THE  
MANCHESTER MODEL RAILWAY SOCIETY\*



Referred to by the late E. L. Ahrons as 'pretty little ragamuffins', the Furness Railway 2-2-2 Well Tanks had a surprisingly long and useful life. No. 37 was one of a batch of four built by Sharp, Stewart in Manchester in 1866 for 'main line' passenger traffic. Later relegated to branch line duties, she was withdrawn in 1896 and served as a stationary engine until the year 1918.

The model is made to 4 mm scale EM Gauge from a photostat of the original works drawing and to photographs of her before being fitted with vacuum brake gear and its attendant unsightly 'plumbing'.

With the exception of armature, commutator and gears the model is entirely scratch-built. But the number plates and buffer beams were professionally engraved from my own drawings.

The motor is circular in section embodying a rewound Tri-ang X500 (Rocket) armature and is a push fit in the boiler barrel. There is a two-stage worm and spur reduction to the driving axle.

In the bunker is a large lead flywheel connected to the motor spindle by a universally jointed cardan shaft.

The outside sandwich frames are dummies. All the wheels, on split axles, run in bronze bearings in the inter-insulated inner frames.

The chief problem with modelling a small single-driver is to balance the model so as to get the maximum adhesive weight on the driving wheels. To this end as much lead ballast as possible was packed in the rear of the main axle: in the well-tank and the firebox, surrounding the flywheel in the bunker and between the frames.

Eventually a point of balance was achieved a few millimetres aft of the drivers. The leading wheels are sprung with just sufficient pressure to ensure holding the track.

The smoke-box, boiler shell, boiler mountings and cab side sheets are detachable to facilitate painting. The boiler was spray painted and the remainder done by brush.

In service No. 37 happily hauls four six-wheel coaches up a bank of 1 in 60. A 'pretty little ragamuffin indeed'.



\*LOOK IN ON THE  
MANCHESTER MODEL RAILWAY  
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