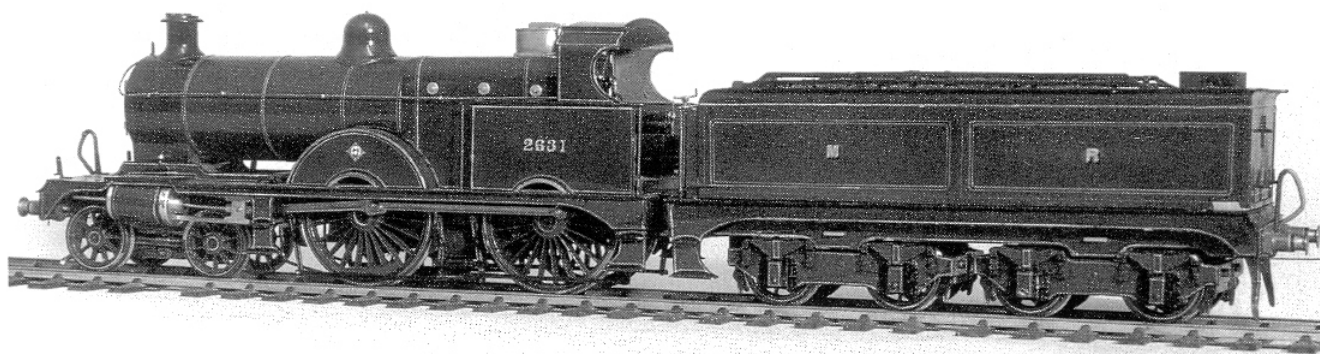


Midland Compound No. 2631

SID STUBBS's EM model is scratchbuilt, right down to the motor:



This was the first of five compounds which were the last locomotives built by S. W. Johnson before he retired in 1903. No. 2631 came out in 1901 and employed the three-cylinder Smith design with one high-pressure inside and two low-pressure outside.

It was set to work on the Settle & Carlisle line and performed extremely well, obviating the need for double heading. It had an enormous 4500 gallon bogie tender which, when full, weighed almost as much as the engine (it was needed as water troughs did not appear on the Midland until 1903). It was renumbered by Deeley in 1907 and, being the first of the 4-4-0 compounds, it received the number 1000. It was rebuilt to Deeley's standard design compound in 1914 and, as such, No. 1000 is still in existence.

My 4mm scale/18mm gauge EM model was scratchbuilt in 1985 using my own motor in the tender and cardan shaft and worm gear, just as my Kirtley 0-6-0 already described in MRJ, the only difference being that in this model, I employed the newly-available commercial wheels with steel tyres and plastic centres. In order to transfer the current to the split insulated axles, thus avoiding collectors, I bored out the plastic boxes and pressed in brass bushes. Two thin metal strips were then soldered at 180 degrees to the tyre and the bush, slight slots being cut in both so that the strips did not protrude; the strips are hidden behind spokes so they are not seen. A full description of this method appears in MRJ No. 56.

In this case, the driving wheels and loco bogie wheels collect the current, but I decided that it was probably not worth

going to the extra length of collecting via the tender wheels as I normally do on six-wheeled tenders, using plug-in leads between engine and tender chassis frames which also serve as dummy piping twixt engine and tender. There is a set of cab fittings including two reversing handles, one for the high and one for the low-pressure cylinders, and, as usual, dummy inside motion is modelled.

This is the only Midland loco I have built which has outside cylinders, and since these are carried on the frames but come perilously near to the footplate and valances, a short circuit would be nearly inevitable were the cylinders of metal. Accordingly, they are turned in Tufnol and the metal cylinder caps, which are slightly smaller in diameter, don't touch.

For normal Midland locos with round cab spectacles, I have made a stock of

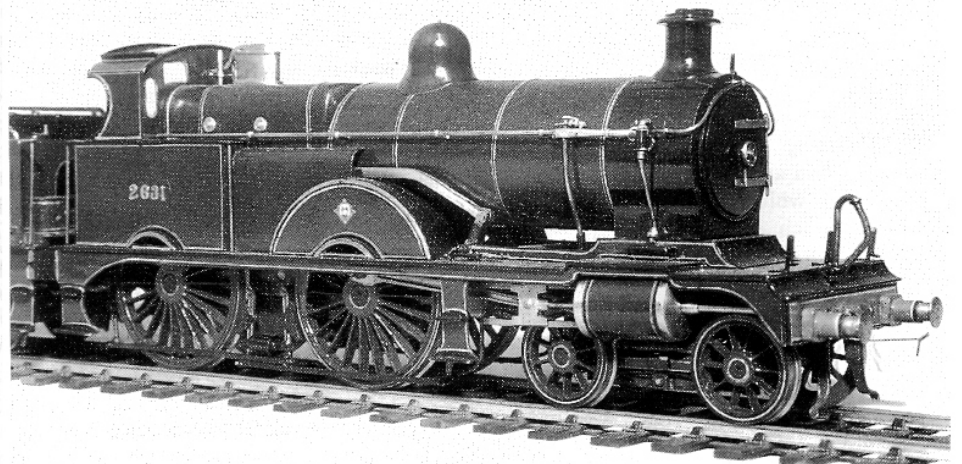
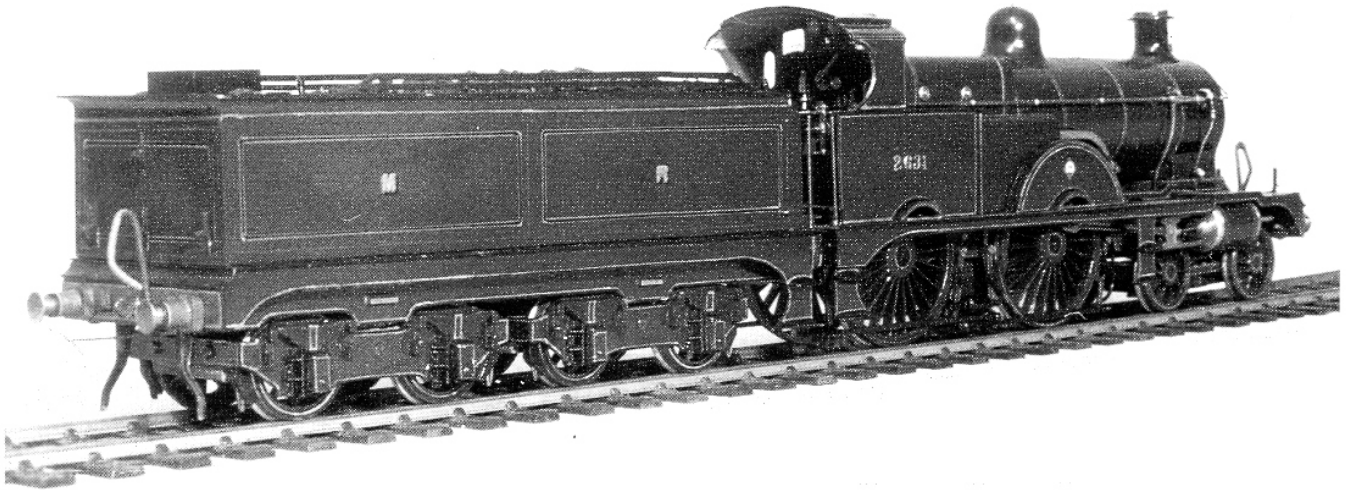
brass rims which are pressed into the spectacle plate, soldered, and a round piece of clear plastic, cut out with a suitable punch, is inserted. However, there are four spectacle glasses on this engine and they are not circular, so here I used some Micro Kristal Kleer, obtainable from model shops, which is viscous and will fill holes this size and solidify into clear 'glass'. The raised brass numerals were drawn out to scale many years ago covering all the Midland engines I intended to model and these were then photo-etched and taken out of the brass sheet as required. The cab side is lightly tinned and each number soldered in place, surplus solder being removed with a fine scraper made by grinding and stoning the end of a fine triangular needle file. The whole is then polished with a glass-fibre abrasive pencil.

Most 4-4-0 locos tend to sit down on the leading bogie with loss of tractive effort from the rear wheels, and this is, perhaps, aggravated by my putting a machined, slide-fit lead plug in the entire boiler and smokebox to gain weight, even though the bogie is sprung. To help matters, the tender sits down only on the rear bogie, the front one being moderately spring-loaded to prevent it jumping off the track, but the tender hook is supported by the eye on the locomotive buffer beam, so adding quite a bit of the tender weight, including motor with lead flywheel, to the rear end of the loco. It seems to have succeeded because, on test, the engine will start and haul 16 bogie coaches up my 1 in 80 gradient.

Painting and lining is as described in connection with my Kirtley 0-6-0 and,

of course, boiler, boiler mountings and so forth, are all secured by screws and so may be detached for painting and lining. This also applies to the wheels which can all be removed as pairs on their axles. Again MRJ No. 56 goes into this latter arrangement in detail.

I have 11 Midland engines all of the 1890-1901 period and all having the same two-start worm gearbox, cardan shaft and flywheel, although the smaller tank engines built later employ Portescap type ironless rotor motors which have proved such a blessing to our hobby. I have enjoyed building the models over the years and their operation over this time has been faultless.



Sid Stubbs's Midland Compound No. 2631 - 12 years old and still going strong.

Photos: PHILIP HALL