



Article taken from 'Garden Rail Review'

MAMOD 'BRUNEL' – A GardenRail Review

A 'Coffee Pot' from Smethwick...

Nowadays it is actually rather difficult to define exactly what the 'Mamod' is that people are actually referring to. While the history of this locomotive and the many derivatives has been covered very comprehensively in a series of articles within this magazine, there is still some confusion over who does what. There are a couple of companies that produce similar models to the original hexamine block fired Mamod Steam Railway locomotive, but the locos coming from the original Mamod Company are nowadays significantly different to these. Certainly while the Mamod Locomotive Mark 2 is rather more attractive than the Mk 1, both were significantly better on the engineering front than the older designs still produced elsewhere.

The latest from Mamod Ltd however, is the rather oddly named 'Brunel' – an entirely different sort of model. This vertical boilered single cylinder geared locomotive is gas fired, with a 40psi boiler providing steam to a single fixed slide-valve cylinder driving a four coupled chassis via gearing – a classic 'coffee pot' locomotive. This is certainly not a cut down toy with an oscillating cylinder – the pressure and water gauges on the boiler and the ceramic burner prove that – and my first thoughts on seeing this were, "What can the modeller do with this?"

First thing (of course) was to try it! Now if one have fired and driven any garden scale gas fired locomotive of whatever provenance, then one knows exactly what to do with this because everything is there. First thing was to fill the lubricator, situated just behind the steam chest. The boiler is filled with water, leaving a header for steam. One can fill to the top of the water gauge or just fill then draw 30ml of water out with one's syringe – doesn't really matter. It is important to properly 'oil round' – this is a geared locomotive, so there are quite a few bearing surfaces to be properly lubricated. The gas tank is charged in the normal way and the fire lit at the top of the chimney and allowed to 'pop' back into the flue tube. Worth mentioning here is that this model has a quite sophisticated and efficient ceramic burner. Once steam has been raised, the regulator is partially opened and the loco 'started' with a twist to the flywheel.

No Fuss at All

In fact a few twists till the condensate is cleared – and then the locomotive will purr away with a cloud of steam exhaust – doing what coffee pots (or De Winton type locomotives) are supposed to do for twenty-five minutes or so. I didn't have any suitable quarry or tipper wagons to put behind it but – never mind – it would pull a quite heavy train with no fuss at all... A well built vertical boilered locomotive that could be used in a number of ways. Something I will explore in a moment.

The real value of this locomotive is that it can be comparatively easily modified and improved both cosmetically and from an engineering point of view. Chuck Kennedy has a 45mm gauge 7/8 scale line and we felt that rather than a largish 16mm scale locomotive, it would make a rather attractive little 7/8th scale De Winton. The gauge is adjustable between 32 and 45mm on this model.

Now Chuck is a bit of a metal basher – and so he looked at making several modifications other than the purely cosmetic – but you don't have to do these – the loco will run fine as it is and you will enjoy undertaking the 'prettification.'

There were no real problems with this locomotive – but I did not like the water gauge on the side of the boiler. It is further outside the frame than the flywheel and is, I feel, rather vulnerable in a garden environment. On this particular model we just moved the boiler a quarter turn round until the gauge glass was safely inside the loading gauge and then replaced the pipework to the lubricator. Not a problem if you are happy with a touch of silver soldering and adjusting pipework.



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Next job was to fit a smaller pressure gauge – no technical reason for this, but both Chuck and I feel that a smaller gauge looks better. I would have gone for my usual half-inch gauge – but I suppose that all depends on one's eyesight!

Wooden Barrel

As with any vertical-boilered locomotive, lagging the boiler and adding boilerbands really makes a difference to the general appearance of the model. Chuck decided to use Starbuck's coffee stirrers as a source of wooden lagging material, and these were brass bound using standard model shop strip brass. The gas tank is rather prominent, as it is on any open footplate model, and it was therefore decided to drop the height of the tank by modifying the footplate. In fact a section of the footplate may be removed by drilling out the four pop rivets, which made things easier. A hole was drilled in the removed section to allow the tank to drop down and a small bracket was made up with a clamp to hold the tank in place. Once complete and working, a wooden barrel from a dolls house supplier was bored out to cover the tank. Pipework may be lagged with fine cord/cotton and painted white. The buffer beams were replaced by more prototypical wooden buffers and a driver and coalbunker were added. These were put on a false floor to enable them to be easily removed for easy access to the lubricator whilst running.

The exhaust modifications are not yet completed. As provided, the steam exhaust vents below the running plate, but the intention is eventually to have the exhaust exit either via the chimney itself or via pipework up the side of the chimney. On many gas-fired vertical-boilered locomotives, there has been a problem with oil in the exhaust burning off and putting out the fire, so this needs to be carefully done, perhaps with an oil trap.

One can add all sorts of other 'tiddly' bits and pieces. Chuck has added nameplates, but the minimal body can certainly be improved by lining out. I would probably make a wire mesh 'guard' for the top half of the flywheel – don't want the H&S boys complaining do we?

Pro

This is nicely made example of the De Winton type vertical boilered industrial locomotive for either 32 or 45mm gauges. Fixed cylinder, ceramic burner, pressure gauge, water gauge and high-pressure boiler make this a well-featured locomotive of its type – and ideal for the hobbyist who likes to improve and tinker. I should say as well that the water gauge is very clear and works better than most at this size.

Con

There is a gauge glass but no water filling valve – although I am sure that someone out there will add a Goodall type valve by using a longer banjo bolt on the pressure gauge boiler bush. On our loco the cranks came loose whilst running and, while this was easily fixed with a drop of Loctite shaft retainer, this might be problematical if a regular change of gauge was anticipated.

The locomotive is available from Mamod Limited and costs £385.00 plus £8.50 carriage. Available from the website or direct from Mamod...

GardenRail Resource

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