



Quarry Hunslet Review

Rob Golding examines the new steam locomotive from Garden Railway Specialists.

Introduction

To many, the 'Quarry Hunslet' might well be the quintessential narrow gauge steam locomotive. These compact, rugged saddle tanks were originally built for the principal Welsh slate quarries in the mid-19th century by the Hunslet Engine Company of Leeds. Their successful design and popularity are represented in the 36 that survive in preservation, with many now hauling passengers at various 2ft gauge railways around the UK. New build versions add to the number, and this classic locomotive design turned 150 years old in 2020.

Naturally, any popular design of locomotive is desirable in model form, and now, in its 151st year, we can celebrate two live steam models available off-the-shelf. Accu-craft recently released a 'large type' version, and now Garden Railway Specialists (GRS) has treated us to a 'small' or 'Alice type'. 16mm scale modellers have never had it so

good!

As a life-long fan of these locomotives, I was thrilled to be given the opportunity to play with, and review, three of these new offerings from GRS, which have been produced by Bowande.

First impressions

I received three samples for this review. A cabbed version in lined blue livery, as per 'Britomart' on the Festiniog railway, and a black cab-less version in Penrhyn quarry livery, as per 'Nesta' on display at Bala Lake Railway - both 32mm gauge. Finally, a Dinorwic quarry version in unlined maroon livery - set to 45mm gauge.

Straight out of the box, they look right. The proportions are all correct and, although I have not counted the rivets on each model, a few quick measurements compared to a drawing I have of 'No.409 'Velinheli' confirmed that the models are

true to 16mm scale.

I was concerned that certain compromises would have to be made to produce a 45mm gauge version of such a small prototype for the wider track gauge, making it look odd or just plain wrong. Thankfully, this is not the case. To accommodate the different gauges, the frames are wider apart than is true scale, and therefore the cylinders protrude past the footplate. But, I don't feel this detracts from the overall aesthetics of the model and it is not noticeable anyway. The footplate is the same width on all examples, and the models are the same dimensions other than the gauge and insulated wheels on the 45mm version.

Presentation and mechanics

The paint finish is excellent, and the lining, which I believe is printed on, is crisp and

well produced. All these locomotives are presented in their preservation liveries when in their working lives they would be dirty and well-weathered.

There is a wealth of detail on each model, with plenty of rivets, firing tool brackets, lamp irons, dummy Roscoe lubricators, working water tank filler cap and safety valve bonnet all present and well modelled. The front end of the locomotive, the smokebox and the chimney, are very well captured. I have always viewed this area as the loco's 'face' - so it is important to get this right, which it is.

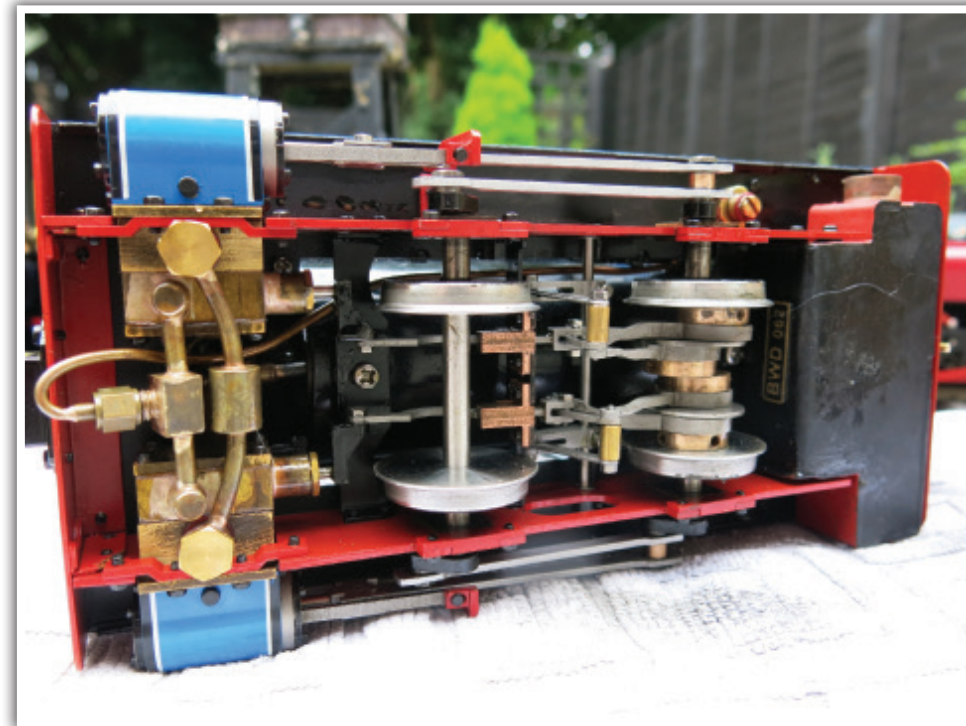
The boiler back head is neat, with all the usual components of a gas-fired locomotive present and correct, including a working water gauge glass. The squat dead-leg lubricator fits nicely in the left front corner of the cab, with the small reversing lever in the other corner. There is a small 1/2 inch pressure gauge, and the gas valve looks like a brake handle.

The doors on the rear of the cab on both versions slide open, allowing access to the burner. The upper rear cab back can also be removed on the cabbed version, allowing greater access to the controls.

There were, however, two aspects of the design that I personally didn't like at first. For a start, the chopper couplings are simply too big, although it is an easy job if you wish to change them. I removed the chopper part by un-bolting the 'hook' that holds it in place and then bent up a brass hook to slot through the chopper housing. Much more prototypical and suitable for the link and pin couplings on my stock.

Second, the large gas tank is situated under the cab floor and the gas filler valve has been placed on the side, with a protective cowl around it. This protrudes somewhat and, at first, I found this distracting. This has been done to keep the footplate clear for adding radio control servos and for footplate space to add a driver figure if running manual. I would have preferred the filler valve to be on top of the gas tank - accessed via a turret on the footplate (as per Tony Sant's Finescale version). This means that the loco must be placed on its side to fill and refill the gas tank - not ideal when the loco is still hot. On the flip side, it does mean you can leave the roof on to refill the tank.

In any case, this is a fair compromise in design that I can learn to live with. Should I come to own one of these locomotives, I would make little brass detachable steps to hide the filler valve. Alternatively, some black paint could be used to tone down the protective cowl.



Looking underneath, you can see the Stephenson's internal valve gear.

Overall, these locomotives are extremely well-produced, and a look at the underneath reveals the beautifully engineered Stephenson's valve gear (as per the prototype) between the 52mm sprung wheel-base. This really is a work of art.

Steaming up

So, I feel these saddle tanks look the business - but, equally important, how well do they run?

After reading the owner's handbook, preparing each loco for a run was just like prepping any other gas-fired steam locomotive. As already discussed, the gas inlet valve is on the side, so I used an old towel to protect the loco as I laid it on its side and filled it with butane gas. The valve is self-venting, so once the tank is full, surplus gas hissed back out.

After draining the lubricator of water from a previous run via the small screw



I initially opted to run with the cab back removed to improve access to the controls. A RC version is under development, contact GRS for more details.

on the bottom, I filled it with 460 steam oil, as recommended in the manual. The lubricator cap screws on and off, so a long flat head screwdriver is needed to do this, especially with the cabbed version where access is more limited.

Lastly, water is added to the boiler. I chose to unscrew the filler valve (located by lifting the lid on the saddle tank) and directly fill the boiler completely, and then remove a 30ml using a syringe. However, you could fill the boiler via the water filler valve using a squeeze bottle until the gauge glass reads 3/4 full.

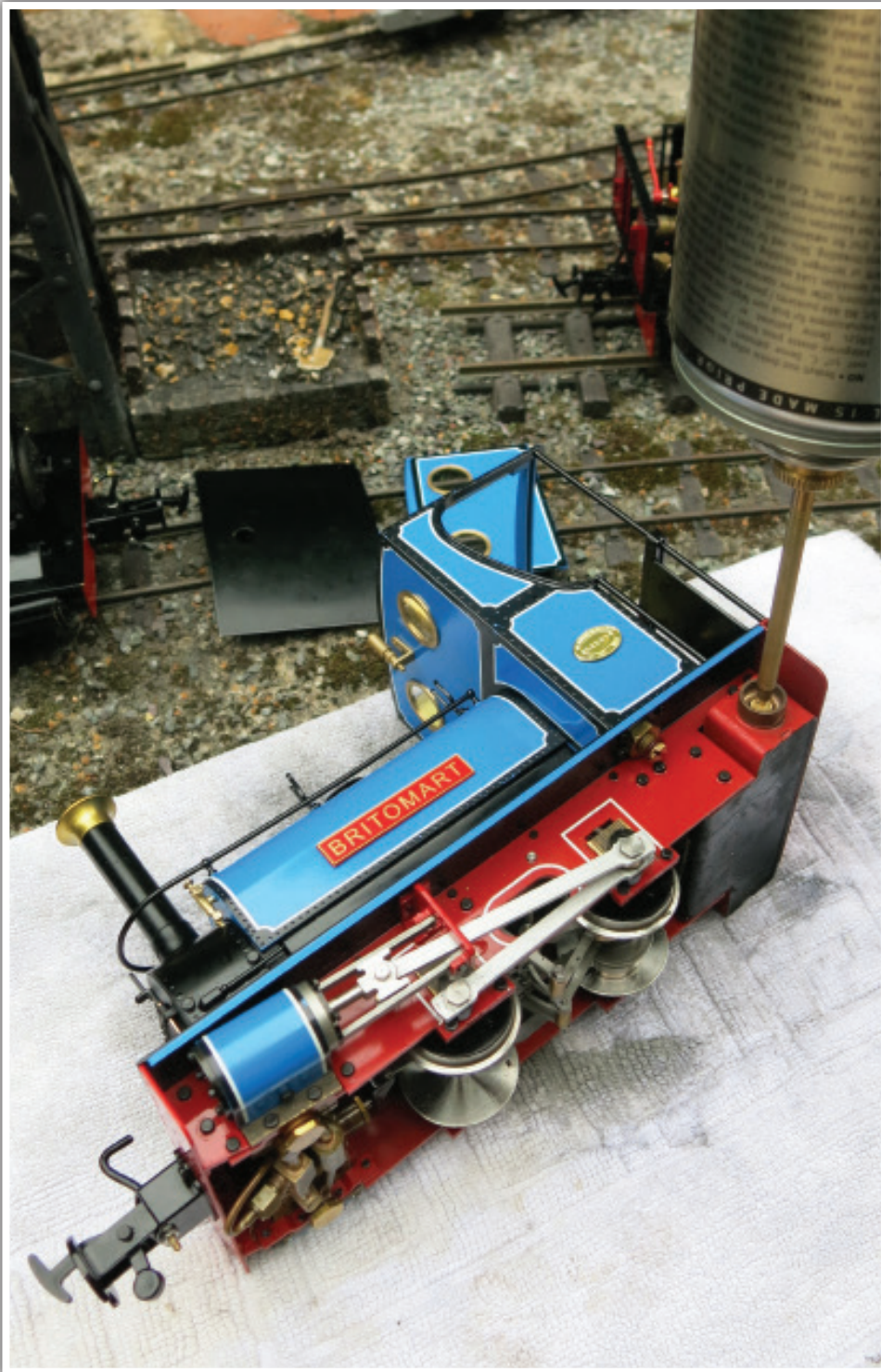
Lighting the poker burner on the locomotive is done via opening the smoke-box door. The gas control valve is very controllable, and by opening it just a crack, the flame popped back down the boiler flue and the burner was lit. I was delighted to find how quiet and efficient the burner was, and with careful adjustment, I managed to turn the gas right down so the sound was only just audible. I had to make sure a few times that the burner was definitely lit.

Steam was raised very quickly (8 to 10mins), with the safety valve blowing off at 40psi. Due to the efficiency of the burner, it is important not to have the gas turned up too high and roaring away. Just a crack open on the gas valve is enough.

With steam raised, wagons attached, and loco in forward gear, it was time to run. I decided to run the cabbed 'Britomart' with the cab back removed at first, to make it easier to reach the cab controls. The reversing lever on the cabbed version is slightly dog-legged, allowing easier access to it within the confines of the cab. Perhaps this could have been made a little longer for better access by human fingers, but an extension to the lever could always be made.

Gently opening the regulator, and we were away. At first, I gave it too much on the regulator, and the loco raced off. Then, after some adjustment, the loco settled down to a scale pace and ran beautifully. The loco's I received for this review were already reasonably well run-in, and my Bayfields Light Railway is reasonably level, but I was impressed with the scale speed I managed to achieve with this little locomotive. Watching it run, any niggles I had about the gas filler valve or large couplings were soon forgotten. It was wonderful to watch and listen to its soft chuffs. It negotiated any gradients and curves with ease and steady speed, its sprung chassis giving it plenty of traction.

The locos large gas tank meant I had



The gas tank is filled from the side, lie the locomotive on a towel to avoid damaging the paint.

to keep an eye on the water level via the gauge glass. And every so often, I would squirt in some water via the filler valve as I did not want the boiler to run dry. When the supply of gas in the tank is depleted, it was not possible to refill unless the loco is placed on its side. But with such a large tank, I was more than happy with the run time that was achieved. The main track circuit at Bayfields is 20m in length, and with careful gas regulation and regular water top-ups, little 'Britomart' managed 32 minutes of running, 36 laps at a scale

speed. Seven laps shy of half a mile!

I was content with hauling trains of small quarry trucks or slate wagons, but should you wish to haul something heavier, then these little locomotives will have no problem. 'Britomart' hauled my rake of Lynton and Barnstaple bogie wagons with ease!

I spent an enjoyable afternoon running both 'Nesta' and 'Britomart' at Bayfields and then ran the 45mm gauged 'Alice' on my local model engineering club track. All performed as well as each other. As already

mentioned, the 45mm gauge version has insulated wheels making it suitable for running on electrified track. It then occurred to me that here is a controllable, prototypical, and affordable small locomotive that perhaps may convert those running on 45mm or LGB tracks to giving live steam a go.

In conclusion

Having now had 14 years experience with live steam garden railways, I admit I have tended to stay away from the smaller prototypes in 16mm scale due to my pre-conceived notions (or lack of experience) of their performance. I have often found either they run far too fast, badly, or for only very short periods. But over the last few years, I feel small locomotive design and manufacture have turned a corner, with affordable and reliable small prototypes now being produced. I can honestly say I am amazed at what has been achieved here. GRS has produced a well-thought-out, beautifully engineered model of a desirable classic narrow-gauge prototype that simply runs well with careful management. Despite my minor gripes with the gas filler valve and couplings, I would certainly purchase one. This is a locomotive that is entirely suitable for my railway, and I would certainly recommend it to others too. And despite its diminutive size, you



'Nesta' in Penrhyn quarry livery.

get a lot of locomotive for your money!

Thank you to Matt and Mark at Garden Railway Specialists for giving me the opportunity to review these locomotives, and

The 45mm gauge 'Alice'. Although the cylinders protrude from the sides of the footplate, I don't think this affects the look of the model.

Garden Rail Resource

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Please mention Garden Rail when contacting suppliers.

