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“Merchant Navy cladding”

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Since the passing of the shell test on the boiler of the Merchant Navy, work has been finished on the super heaters; which are awaiting final fitting; the regulator is fitted and operating while the biggest job was fitting the cladding, not a job that was enjoyable as the MN Boiler is a difficult shape. Doing cladding for the B1 with a parallel boiler was a piece of cake, roll it split down the side and fit, add detail and boiler bands, Job done, Simple! Not so for this boiler, one Belpaire corner, a forward protruding bonnet on the left-hand side, a tapered middle section being level along the top to the tapered firebox section.

No one-piece fits all on this loco! To hide all the joints, the boiler bands are the key. One problem was the boiler bush hidden under the left-hand bulbous bonnet, which is the feed bush to the main steam pipe to the manifold in the cab. Murphy's law dictates that at some point it will leak! as the bush is under the cladding, it was made to be removable for servicing in case of such an occurrence. The cladding is .030" thick to add contd. Page some strength to try and avoid annoying little pressure dents. Trying to knit with Brass a close-fitting jacket to a boiler that has features similar to Quasimodo was challenging to say the least.

When studying photos of loco's, you see all sorts of detail that you hadn't noticed before, On the MN I wanted to add detail - take washout plugs - they vary from side to side. There are six either side but their position is staggered on each side so that when washing the crown all areas can be accessed, plus 5 on the top of the Belpaire section, with two on top towards the front adding further angst.

As with every model built from drawings the builder is building a prototype, and although positive and negative experiences are shared on many forums, how we choose to tackle these challenges



varies from modeller to modeller. And invariably when we finish a part/project we realise there was probably another way that could have been easier (or would it have been?) such is the fun, frustration and gained experience of doing model engineering.

When we build, we do have to accept some compromises with no exception in fitting the cladding. When boilers have overlap joints of 1/8 copper to get the shape, we find that with cladding we have to pack with insulation to try and overcome the problem of shape. Anyway, the cladding is finished and the result is a practical representation of a MN. The boiler dome was a fabrication starting off with a big

piece of cored brass 3 ½ diameter, allowing me to clamp and fly cut to shape to the boiler cleading, with final fettling to fit snug as there is a taper on this part of the cleading, then on to the lathe bore out to fit over bush cover, and then silver solder a piece to fill the cored out section, and finally back to the lathe, a small amount of turning then files, Dremel and sanding to get the shape of the dome cover. Time consuming, as there are no castings available.

Safety valves were again a compromise to outside shape but with internal dimensions to Gordon Smith design. Our boilers have threads normally ½ by 26. Full size they are bolted down by a series of bolts around the base. I still have to machine the wheel for the dummy control on the left-hand forward shroud.



Widow frames are ready, with 1mm Microscope slides with spares ready in case of breakage, the forward cab windows will be glazed with 2mm Perspex. Now its on to the back head fittings, getting the superheaters bolted in and the hydraulic test to one and a half boiler pressure 150 lbs. As for the chassis, the drain cocks have been changed to standard drain cocks working from a Bowden cable running through a copper tube, the steam operated drain cocks have been jettisoned as most comments about them suggest they can cause problems with clogging up

Painting has begun, with most parts in Primer, which is great for showing up any marks that will require extra prep. Now all I need is the hot weather they keep banging on about so I can paint and dry throughout the summer.

Hopefully the next article will be called completion and steaming, fingers crossed.