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## “Fine gauge 1 Models”

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Firstly, a C32 rebuild of the original P class built by Beyer Peacock for the New South Wales Government railways.

It was bits and pieces night at Harlington club and I had taken a G1 boiler along. The chairman arrived with an Australian visitor and during the break, Barry from Oz showed interest in the boiler. He was finding building 5” locos was becoming too heavy to handle and, as a result, had taken up G1 so wanted my contact details, (address and landline back in those days), to keep in touch.



Not long after, a short article appeared in Steam Railway magazine about the restoration of Hunter, a class 32. I was at the Birmingham club and Barry was there as well, so I asked him if there were any drawings of the C32 as I fancied building one. Barry asked me to make one for him as well, and he would send me drawings and a book and said he could get detailed castings as well.

Sometime later and customs duty paid, I received a large roll of drawings, then later the book (Barry’s own copy), and castings. The book, Standards in Steam The 32 Class by R G Preston, gave a lot of information which was very useful.

In their original form the frames were not very deep around the cylinders; they were not superheated so the smoke box was short; the whole of the front was like an Adams radial tank; the drivers were 5’ diameter and the valve was Allen straight link. A standard Beyer 6 wheeled tender was fitted. The cab was of chief engineer Mr Thow design. – the circular side window was his ‘trademark’. Over the years the frames around the cylinders had fractured. Some engines like Hunter had sections welded above the cylinders.

However, the boilers had been superheated, therefore needing a longer smoke box, the tenders had been changed for a larger bogie type and, where frames were in a bad state new thicker frames were fitted, as in Cambewarra. The connecting rods are radiused, top and bottom.

I initially began by making parts for both locos but quite soon in the process focused on finishing Barry’s first as he was due to revisit the UK. (Barry had been in WW2 and came over to attend memorials). I had made a box for the loco but he decided to roll it up in his clothes then into his suitcase. (Something to do with customs I understand!)

Barry had quite a few years enjoying the loco but sadly passed away last year. As for my own loco, well it’s still a drawer full of parts and on my to do list.

Chris had been asking me for some time to build him a loco but his interest was in French compound steam, of which I had little knowledge. However, that changed some years ago.

Every year, (until Covid), a garden meeting had been held at Staplehurst in Kent. A father and son team from Holland attended, bringing a selection of their locos and rolling stock. Jaaps, the son, was showing me his latest project when Chris came over, had a look and asked me to build him one of the same. I prefer to work from works general arrangements drawings but, although the drawings Jaaps sent me were general arrangements they were not works ones.

Nevertheless, it was enough for me to work from so I was able to build a G1 model loco for Chris.

The full-size locos were designed and built by Beyer Peacock to fit on existing turntables, with increased power over the previous class. The loco has 4 cylinders all driving the front axles, with Walschaerts valve gear between the frames.



Whilst they were being built by Beyer Peacock, Mr Bowen Cooke of the LNWR went to see them. The result was the Claughtons.

The Dutch locos, nicknamed Jumbos, ('Yimbos' in Dutch), were better locos than the Claughtons, lasting until the end of steam in Holland. The Germans, when retreating from Holland in WW2, tried to destroy them all but

they were rebuilt later. In addition, immediately after the war ended, Great Britain sent austerity 2-8-0s and 2-10-0s to Holland but, when those were withdrawn their tenders were used behind the Jumbos.

When building the model, because of the need to fit an axle pump, the inside cylinders could not be fitted. However, with only outside cylinders the loco has all the power needed. The tenders are interesting because of two long lids either side, giving access to the water tank. In the cab both driver and fireman had button and leather seats, of which I made metal copies.

I found it interesting to make something different from British locos from time to time, when I was building to sell. However, Holland and Belgium before WW1 had lots of British type locos, e.g., Caledonian Dunalistairs and Jumbos.

The loco for Chris was a one off, so fortunately I do not have a drawer of unfinished parts unlike the C32 for Barry from Oz.

### **GLASGOW AND SOUTH WESTERN RAILWAY: MANSON 381 CLASS**



A friend phoned me to say he had bought a second hand 381 – would I take a look at it and overhaul as necessary.

When he brought it over, I had a good look at it. He had taken the boiler off so that I could have a better inspection of the chassis. It did not look good! Two driving wheels were loose where they had been removed to fit an axle pump. The pump itself was too close to the eccentric, with a very short eccentric rod. Too much angularity.

The frames were very rough and there was a broken tap sticking out. Checking against a picture of the full-size version the model, the boiler looked too big and the driving wheels too large as well. It was easier to start from scratch so I did!

However, not long after the above, an article appeared in the Model Railway Journal by someone building a 381 and he had a General Arrangement, (GA) drawing but was looking for back head details. A phone number was included so I gave him a call and found that he knew the person for whom I was building the 381 and he agreed to send me a copy of his GA. Upon receiving the GA and studying it I found that I was right about the boiler and driving wheels. The boiler was going to be a problem because it needed 1 7/8" diameter tubing. However, the full-size driving wheels were 6' 1" and not a problem – I had used wheels of that size for Great Central and Caledonian models.

In full-size the cylinders had overhead slide valves driven by Stephenson's valve gear with rocking links through the frames. I machined the cylinders from bronze bar with the valve chest machined out on top of the block. There was just room for the slide valve, although the exhaust cavity was not very deep and I had to hope that it would work.

The boiler has a long barrel and a short fire box so there was a question mark as to the steaming of the boiler. This was the first loco I had made with bogie tender. I made the patterns for the leaf springs and they were then cast in brass. When building was finished but before getting the loco painted, I steamed and ran it to check everything was working properly. Fortunately, the boiler made all the steam needed and the shallow exhaust cavities were not a problem.

I then stripped the loco back down completely, degreased it and then reassembled it into suitable sections for painting. The sections were then taken to the painter Alan 'Bracks' Brackenborough (now sadly retired) who did a magnificent job painting, lining and lettering. The Glasgow and South Western society advised on colours but I believe the green used was a Rover car colour!

## **LONDON, BRIGHTON AND SOUTH COAST K CLASS MOGUL**



I had been thinking about building a mogul for some time. I had a suitable set of driving wheels and a set of cylinders. I machine the cylinders from bronze bar as I don't like the commercial castings and tapping blind 12 BA threads in them can be a nightmare. General Arrangement (GA) drawings for the loco and tender came from the National Railway Museum.

Looking at the loco drawings I can understand why Fred Bailey and Keith Sturt at the Bluebell Railway didn't want to build a full size one. The linkage connecting the pony truck to the front driving axle is complicated but, fortunately, not necessary on a model. I had a photo of 2351 in Southern livery before the chimney, dome and cab were cut down. The only addition Southern

made was to fit vacuum brakes. I had castings for the Westinghouse air pump but I had to fabricate the Weir pump. On the full-size locos part of the exhaust was diverted into the tender to heat the feed water. Ordinary injectors will not work on hot water hence the Weir pump and a hot water injector.

A friend showed me a photo of the Brighton J1 tank which gave me most of the details that I needed to make the dummy Weir pump. I made patterns for the tender horn guides, axle box covers and leaf springs from which lost wax castings were taken.