A stretched loco for 'Dingle' (see RM Dec 2002, Jan/Feb 2003) by Simon Starr
Converting the 'Branchlines' 2-6-0 to a 2-6-2

A few years ago we exhibited the short version of 'Dingle' at Manchester Exhibition. Whilst there someone enquired if a model of No. 5T, a 2-6-2 (stretched) version of the five 2-6-0 Hunslet locos that ran on the line, was in the offing. At the time, I felt it was beyond me as there were too many modifications needed - I apologise if I was somewhat brusque with the person who asked, but at just over £100 for the kit, just to hack it up seemed an expensive experiment, especially if it went wrong. However, some things just nag at you and I started to look at scale drawings of the engine, though this only led to frustration, as the published ones were all different in some way. Fortunately, I was able to obtain a copy of the original Hunslet works drawings, which show the loco as built. I planned how the kit could be extended with as few cuts as possible and listed what other changes were necessary. Finally, once happy that the project was feasible and that it was manageable, I wrote off to Branchlines and purchased the kit. Andy Mullins was very helpful in providing some of the extra parts required from his limited supply of spare or damaged etch. However, a period of four months then passed before the courage was finally plucked up to start cutting!

Potted history
Through mismanagement, the Tralee and Dingle Light Railway Company finances were in a perilous state from the outset, but due to over work and questionable maintenance of the first four engines, they desperately needed another loco. Only one engine was working and a pony and trap had to be bought to carry the mails! No.5 (coincidently Hunslet works no. 555) was ordered in 1891, three years after its early stable mates. Hunslet gave a cash price for No.5 at £1835 but as it had to be paid for in instalments over three years it ended up costing the company £2080. It was delivered in 1892 and in its original form became one of the earliest locos to be fitted with oil firing (Holden's Patent oil firing apparatus). 'Why' isn't known but one story goes that the T&D engineer at the time had either been trained by, or worked under, Holden himself. It could also have been that a 'hard to refuse' deal was struck for Hunslet to experiment with a relatively new system on a narrow gauge locomotive. Despite the oil firing proving a success economically and in terms of performance (units were purchased to convert two other locos which were never used), it was converted to coal firing after only a year. It may be that oil just wasn't that readily available in the extremes of Ireland, or it could have been that in June1893 the Tralee and Dingle had just appointed a new locomotive foreman and his aversion to oil firing caused the conversion.

Whether it was the oil firing apparatus or complaints about the cab size, I'm not sure, but the cab ended up being an extra 6'' long. When the Tralee and Dingle's Hunslets went on their travels around the Irish Narrow Gauge (West Clare and Cavan and Leitrim) cab size proved to be one of the unpopular features of these locos. No. 5's 'main' claim to fame however was that it was the first British narrow gauge 2-6-2 tank engine loco fitted with inside frames.

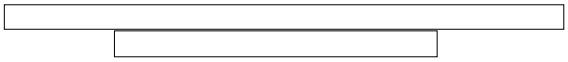
Being a popular loco amongst the crews it was worn out by 1902 having travelled about 2000 miles a month for a couple of years and a major overhaul was performed 'patching' up the engine to keep it running. By 1906 a new boiler was needed and a larger one was ordered and fitted raising the boiler pressure to 150lb/in. and the tractive effort from 10700lbs to 11500lbs. It was always nominally more powerful than its sisters. No.5 then had a busy but humdrum existence for a number of years. She was used for a failed experiment in turf burning in 1944 during the massive coal shortages in Ireland at the time, the engine only reaching Emalough where the fire ran out. She was abandoned there for about a week until rescue came in the form of a truck of coal! By 1948 though the loco was worn out and stuck at the back of Tralee shed. She was sent to Inchicore works outside Dublin where repairs were done before travelling to the Cavan and Leitrim in 1950, lasting there to the end. In 1959 No. 5 was sold to Steamtown USA in Pennsylvania but with a lot of hard work and good fortune was finally repatriated in 1986, restored and, amazingly, back in steam by 1992 and now runs on the Tralee and Blennerville Railway, a short section of the original line.

As with other questions relating to the difference in No.5 to the other locos, it seems odd that a 2-6-2 was purchased. Many Hunslet locos have a certain 'gait' and in the same way that Baldwin attached an extra pony truck at the rear of their War Dept. locos so Hunslet may have pre-empted them, in this case to

improve running in both directions possibly with the aim of saving having to turn the loco, although it always was! It would be interesting to know the truth!

Construction

I started by tack soldering the frames together. They were then cut just beyond the rear driving axle, as seen on the photo. Once separated, a 6mm insert was fitted to each side. The insert was made by soldering two pieces of brass, one the right width, the other wider forming a flat 'T'(see diagram).



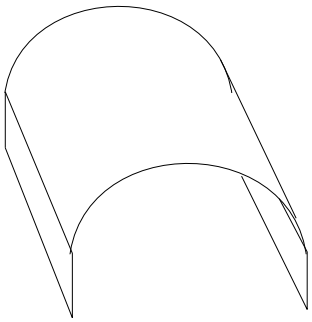
The frames were then soldered and put together as per instructions with an extra frame spacer placed at the rear, fabricated from waste etch (see photo). This acted as the support for the new rear pony truck. In fact the Hunslet drawings show it and the front as 'Bissell' trucks - a single pivot with a lateral sliding axle and other clever stuff. As the front on the model was made into a pony truck I did the same for the back, though I did have some fancy ideas with minute springs etc ….. The method for attaching this is as the front. Andy Mullins sent a spare pony etch (amongst a few other bits) which was shortened so that the distance from rear driving axle to pony axle is 20.3mm. The rear of the frame also needed a curve cut out of it to accommodate the truck - this was done where there was already an oval cut into the frame.

With the valve gear added and free running ensured, the chassis was virtually complete. The wheels needed balance weights which were fabricated from plasticard (two spokes worth on front and rear, four on centre) and there was some detail to be put on the underside of the cylinders. Something I always find a problem getting right is the pickups. In the end phosphor bronze wire was used (thanks Laurence) as it has extra 'springiness' and I believe greater conductivity. It's fine having a cosmetically attractive loco, but if it doesn't work it's only use is of 'ornament'!

The body was 'stretched' using the same method that I used on the chassis, a 4mm insert being fitted in line with the cab front (visible in the photos). The cab is 6'' longer and to achieve this I placed a 2mm insert into the top part of the cab side in line with the door, which was then replaced. Unlike the other locos the cab door had a 6'' step to get over rather than being flush with the footplate. This can be seen in a picture taken of No. 5 on the turntable at Dingle - p44/45 of D Rowlands' Bradford Barton[3] book. The cab rear has two large windows (three when first built, but the middle one seems to have disappeared quite early) which are supplied with the kit. The boiler is the next problem as it should to be 9'' longer. I didn't fancy having to have to cut out and curve a new boiler so the old one was used. The smokebox wrapper was treated as per instructions but the boiler was pushed 3mm through so that it was no longer flush with edge of the wrapper which meant that it still fitted into the cab front. However, due to the longer cab, the location of the cab front no longer fitted the locating holes on the footplate, so the tabs had to filed off. This left a slight gap on the floor internally but by the time the cab fittings were in it wasn't noticeable! . I cut a new cab roof from brass as it seemed daft to add a 2mm strip! The extended tank tops were then fitted.

The extension to the footplate was made to the rear of the centre 'cut out'. This was because the front section of the loco frames, up to the rear driving axle, is the same as the 2-6-0 so if the footplate was kept the same up to there the motor etc would still fit. Along the edge of the footplate is a valance. The one in the kit was now too short, but an exhibition visit to Eileen's Emporium sorted this out and a new strip was purchased.

The next step was to model the larger firebox, a result of the 1906 reboilering. Its size could only be estimated from flimsy photographic evidence, which show it ending just in front of the bell. This was probably in the same position as on the original drawing, as were the safety valves. I modelled the firebox by adding an arched piece of brass with two 1.5 mm verticals to locate it (see sketch right). I worried about how to model the double curved surface joining it to the boiler so in the end used Milliput, which once painted looks fine! The only clear picture I have seen of this is in Tom Ferris[2,] 'Irish Narrow Gauge Vol. 1' showing the loco outside Ballinamore shed on the C&L p88 top. The dome fits such that its rear edge just covers the original hole in the boiler.



There are some other minor detail additions / alterations; on all the Hunslets there were at least 2 footplate supports visible in pictures - these came out from the frames the full width of the footplate. They were probably to attach the skirts which covered the 'motion' all of which disappeared (got 'lost') soon after delivery. I added the supports when building No.2 as well, though it's worth looking at pictures as they seem to be different on all the engines - some have square ends, some curved, some big, some small….. These were fabricated out of scrap brass. They had a small hole through which a pipe was fed on the right hand side only to feed the vacuum brake pipe. Photos show holes in the supports on the left hand side but no pipe. To the front of the tank tops there were lids for the sanding units acting on the front wheels. There were also two just outside the cab at the other end identical in size and these were probably for the pipes acting on the rear wheels. The loco had an original lamp bracket throughout and for much of its life ran with a small acetylene lamp (as supplied in the kit) perched on top, if any. The handrails went right down to the base of the smokebox until 1931. The well known wooden toolboxes lasted until 1936 when two metal ones replaced them. These would have to be scratchbuilt unless you can source them from somewhere - the one on No.2 came from the spares box on a Chivers stand some years back, though it was 3.5mm scale not 4mm. In 1934 the loco gained a riveted patch at the base of both tank sides - the same patches appeared on No. 6 so it seems there was a problem for which there was a general solution. I've not modelled them yet but I'm tempted - lots of rivets though. As for number plates - I modified the No 3 ones which are OK from a distance, but I could do with some better ones! The cab details for No. 5 are in the Bradford Barton[3] book, which combine well with the isometric version given in Andy Mullin's excellent instruction sheet.

The dimensions mentioned in the text were taken from the Hunslet drawing and are listed below:

From front to back - front buffer beam to front pony 2' 8''; pony to front driving axle 6' 10''; front driving axle to centre one 4' 3''; centre one to rear 4' 6'' (all as other Hunslets!); rear driving axle to rear pony 5' 1''; pony to rear buffer beam 2' 8''; cab approx 6' 0''; tanks approx 14' 0''(these last two to nearest inch). The frames are about 18'' longer which relates to the body as a 12'' longer tank and a cab which is 6'' longer. All comparative dimensions are from the drawings for No2 in David Rowland's Plateway Press[1] book and the one in PB Whitehouse's 1954[4] one, which are relatively consistent.

Building No.5 has been a challenge, which at various stages of construction, I thought was going to be beyond me. However I'm glad I kept with it, the resulting model being both pleasing and reasonably accurate. I think it is important to say that I am not a massively experienced loco builder - this is only my second etched loco build - the first being No. 2, so I suppose at least I knew the kit! When I look through the construction pictures I found too many little errors including extra blobs of solder (which all needed cleaning off before painting), my soldering techniques being a long way short of expert. The main thing is to have a go and see what you can achieve. Barring disaster the loco will be running when we exhibit 'Dingle' at Manchester, 3rd, 4th & 5th October this year. See you then!

One last thing!

I have made a good stab at building this loco, but like everything in this hobby, we have to compromise somewhere along the line (sorry about the pun). I have not created a real steam engine and the crew don't get out to oil and water it very often! This all makes a charming naivety of the, hopefully tongue in cheek, statement *'those who can freelance, those who can't follow the prototype'* RM Aug 2003. It would be hard, if not impossible, to find a 'prototypical' layout on the exhibition circuit - there has to be a degree of invention, but neither can you make it *all* up! For example 'Dingle is $\frac{2}{3}$ the size it should be and stock is run from all over Ireland to make it more interesting - a 'prototypical' two trains a day would be easy for operators but not good for the public to watch! All layouts require some research and background knowledge, witness the sometimes longwinded fictional histories, but the best portray the character of a line and that requires a degree of 'prototypicality'. In a layout such as Chessington Chalk Lane seen in these pages some months back, the base of the layout was fictitious, but represented a region superbly, as do many regional branch line models. For me, the sadness of the statement is that there is an implication of one model type being better than the other. Both require a variety of skills to get 'right'. Whichever is chosen you have to know the background of your layout, prototype or imaginary, to make it seem real. Careful

observation of detail and research still apply. The important bit is that you don't feel inhibited to model what you want.
Anyway, wouldn't the statement read better if the comma was replaced with the word 'are'?

Bibliography

1. The Dingle Train - Rowlands, Mc Grath and Francis - Plateway Press 1996
2. The Irish Narrow Gauge Vol 1 - Ferris - Midland Publishing1993
3. The Tralee and Dingle Railway - Rowlands - Bradford Barton
4. Tralee and Dingle Railway - Whitehouse and Powell - Locomotive Publishing 1954

I would also like to give a personal thanks to David Rowlands, Andy Mullins and Laurence Wheeler. I should add that without the encouragement of the 'club' environment this project would never have got off the ground. If you would like more information about Chester Model Railway Club, you can always visit us online at www.chestermodelrailwayclub.com or write to the club secretary *Roy Greenhalgh, 121 Lache Lane, Chester, CH4 7LU*.