ROAD 'N' RAIL

MAXITRAK OWNERS' CLUB MAGAZINE

Number 81

Winter 2017

Welcome to new members

These are the new members up to January 2017

Mem No.	Name	Address
1038	Mr N Evans	
1039	Mr D Corps	
1040	Mr M Clarke	
1041	Mr S Alvis	
1042	Mr R Sossick	
1043	Mrs Y Chapman	
1044	Mr M Goussu	
1045	Mr R Leamey	
1046	Mr D Wilson	

Should you wish to obtain further details of any member please contact the Secretary

On the front cover:

Chairman Trevor seen at the controls of a 5" Planet running on the Worthing track. This issue of the magazine researches some of the history of the full sized locos built by F C Hibberd and there is news of a new 7¼" gauge version being developed at the Factory.

Road 'n' Rail

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Contributions:-

Contributions in the form of articles, photographs and letters are most welcome and should be sent to the Editor, details on the opposite page. Inclusion or publication of an article however does not constitute agreement or endorsement of the author's view

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ROAD 'n' RAIL

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In this issue

Editor's comments

Welcome to another issue of Roan n Rail, I hope you will find the articles interesting, particularly those that research the background of some of the locos upon which some of the latest factory projects are based.

A thought occurred to me when reading Andy's Factory News that someone may contemplate replicating an Australian sugar cane train with a new Baldwin bogie at the head of their train, another slave loco part way down the train and a powered brake van bringing up the rear. This strikes me as a challenge for someone to take one of the 5" Starter Chassis, make a brake van body and fit it up for remote control from the driving loco.

May I make a plea again for reader's articles on their models - building them, operating them or customising them. Articles from road vehicle owners will be particularly welcome to add some variety. I do depend on Club members inputs to produce a range of articles that will interest our members so, please get some articles rolling in - after all, feed back between Club members helps us all not only enjoy our hobby but also make an occasional improvement to add our own personality to a 'standard' product.

Jeff

Class 66 loco model wanted

I've had a request from Peter Price who is looking to buy a second hand Maxitrak Class 66. If any reader knows of one can you please contact me, details on page 3, and I will put you in touch with Peter.

Parish Notices

April 8th	**Boiler testing day at Leatherhead**
June 10th	**Visit to Norwich & District SME**
June 24th	**Visit to Fareham & District SME**
August 5th	**Visit to Surrey SME, Leatherhead and MOC AGM**

A view from the Chair

Firstly, may I wish all members and their families a very happy new year.

We can look forward to another running season in the next few months, before that we have boiler testing day at Leatherhead SSME track on 8th April 2017 09:00 to 13:00 I will be locking up the club at 14:00 sharp. Please ensure your engines are ready for testing and please don't turn up and start working on your engine. Both Andy and myself do this for nothing and don't need to be there all day waiting for members to get their engines ready to be tested.

Once again, we are going to have the AGM at Leatherhead with a day playing trains added, this will take place on 5th August 2017 09:00 to 17:00 locking the club at 17:30 on that day. If you do attend this year, please try and bring along your own driving trolley as we find it hard to get enough for all visitors.

I have finally got my Maid of Kent working on air and it is being put together ready to start running later this year.

Our first public running on 1st January 2017 saw my Polly in steam again I haven't done any more work to it but it ran faultlessly all day.

I am looking forward to seeing some of you at the various rallies this year. Please come along and show the hosting clubs that we appreciate their track and their hospitality.

I turned 60 in January and was going to have an open day at the club but we are working on replacing sleepers and lengths of track ready for our public running on Good Friday. My girlfriend and I spent the weekend in York, and we also got engaged that weekend as well. I have told her that when we buy our house I must have a workshop and a railway room for my layouts, what the rest of the house looks like I don't care. Only five more years then I can afford to retire.

Andy took the sales stand to the Brooklands Model Engineering exhibition but most of the traders gave up before the end. My club had their portable track there and I think we took £69 over the whole show which was donated to the Kent Air Ambulance. I hope the exhibition keeps going and improves this year.

I am looking forward to the next Model Engineering show at Doncaster in May and plan to go.

That's enough of my ramblings see you soon.

Trev.

Boiler Test Day 2017 at Leatherhead

This year's Boiler Testing Day will again be held at the Surrey Club at Leatherhead, this gives the opportunity for those with steam locos to have a run on the track and demonstrate that the water pump is working. In recent years we have had a good number of road and rail steam models to keep Andy and Trevor busy, so let's hope for decent steaming weather on Saturday 8th April .

For boilers above 3 bar litres it's worth repeating some notes about preparing one's model for a boiler test:

- The first thing model owners must do is to prepare the model - as part of the hydraulic test, required every 4 years for a copper boiler, the Boiler Inspector will pressurise the boiler with water and check for leaks. Owners can easily do this with a hand pump, the usual leaks are from boiler fittings so these can be fixed prior to the formal test.
- When it comes to the annual steam test again there are some simple checks that owners can do to save time and embarrassment.
    - If before steaming the boiler pressure gauge is not reading zero it may well have been damaged by frost. As the gauge will be checked against a master gauge as part of the test it may need replacing.
    - The next check is that there at least two working means of getting water into the boiler so check that the hand pump and engine pumps are working. A common problem when models have been stood for some time is that the inlet non-return ball sticks and the pump doesn't work. Pouring boiling water over the pump often fixes this - if in doubt give Andy a call.
    - The next check is for the safety valve(s). Steam up the model at home and check that the safety valve is working and can contain the boiler pressure to within 110% of the rated pressure. If it doesn't the valve(s) may need cleaning or replacing. Take extra care if the valve appears to have stuck and the pressure keeps rising or damage to the boiler may occur.
    - Before presenting the model to the Boiler Inspector ensure that any residue of the last fire has been cleaned out of the ashpan, the tubes are clean and the smokebox has also been cleaned out.
    - Finally, remember to bring with you copies of your last steam test certificate and also the hydraulic test certificate. You should also have a copy of the 'Written Scheme of Examination for the model.

2017 Visits programme

This year we start with a visit to Norwich to see our friends at Eaton Park, this year the visit will be on the second Saturday in June, the 10th, one week later than usual. The ground level track is in a lovely park setting and there is plenty of room for visiting miniature road vehicles. Please let me know if you plan to join us as this will help with any catering. The Norwich Club web site is www.ndsme.co.uk and it includes a map giving directions to the site.

Our next visit, two weeks later on June 24th, is a new venue for us as we have been invited to the Fareham and District Society of Model Engineers at their site at Tichfield just to the west of Portsmouth. The Fareham Club don't appear to have a web site but there are several clips on Youtube of some of their events. There is a raised 5" track and a ground level 7¼" track, also a boating lake but we haven't seen too many boats on our MOC visits - so far! The site address is: The Railway Field, Segensworth Road East, Titchfield, Fareham PO15 5DY which, looking at Google Maps, is between the A27 and M27 to the west of Fareham. I understand that there is a caravan site adjacent to the Fareham Club that can take members who would like to bring a van, ideal for anyone who has to travel.

From what I can see from the Youtube clips this looks a most interesting site to visit with plenty of other attractions in the area for those who wish to 'make a week-end of it'. Again, please let me know if you are planning to attend.

Our third planned rally will be our usual visit to Leatherhead on the first Saturday in August. After some complications with cycle races taking over the town in recent years, this year we are on schedule to meet again on the first Saturday in August, the 5th. As has become our custom in recent years we plan to combine the Leatherhead Rally with the MOC AGM. This involves a short break in enjoying ourselves driving around the track to take in a spot of lunch and go through the formailites of the MOC AGM.

We have another visit offered, again to Worthing, but at the time of writing a date has still to be finalised. If this is confirmed details will be in the next issue of Road n Rail and will also be published on the MOC web site.

As ever, these events are organised to give as many MOC members as possible the opportunity to meet up with other owners of Maxitrak models. We've tried other venues 'further north' in the past with limited success, however we are always prepared to try something new. If MOC members would like to offer another visit venue please let our Secretary Tony know and we will see if we can fit another venue in.

A 7¼” gauge Sentinel Railcar

A fellow member of the Saffron Walden Model Engineering Club has an interest in narrow gauge railways (he is Editor of the Narrow Gauge News magazine) and also in railcars of all gauges - indeed in 2012 he had a book published by the Narrow Gauge Railway Society entitled ‘Pickled Passengers, the Sentinel-Cammell narrow gauge railcars’. Having previously built a battery-electric powered County Donegal railcar to run on his 7¼” garden railway Paul set about designing a Sentinel which, just like the full size versions, would be steam powered.

There would be a few constraints to the design:

- The bodywork had to be large enough to accommodate the driver and one passenger
- Construction of the bodywork had to be such that the model could be easily dismantled for transport in the back of a hatch-backed car
- The model would need to be able to negotiate the fairly tight curves on the garden railway so some sort of articulation would be necessary
- As only limited workshop facilities were available the boiler and engine components would have to be ready made.

Fortunately, as the design ideas were taking shape, Paul became aware that Maxitrak had introduced a 7¼” gauge version of Chaloner so a visit to Staple-hurst was arranged to see if it would be possible to adapt one to power the railcar.

The photo above shows the finished model at the Saffron Walden club track, I’ll now describe how Andy adapted the Chaloner components.

With the body panels removed we can see the Chaloner boiler (coal fired, of course) mounted in front of the twin cylinder power unit. These are standard Chaloner cylinders with the piston valve chests in between. They are mounted horizontally with the crankshaft further back on the chassis.

The crankshaft runs in two bearing housings and has a chain drive to the leading axle positioned just behind the boiler. Between the cranks are the eccentrics and linkage for the Stephenson's valve gear. Another eccentric is fitted for the mechanical water pump.

Mounted on the inboard side of the pole reverser stand is the mechanical lubricator whilst at the other side of the chassis is mounted the hand pump.

An inter-connecting chain is used to take the drive between both sprung axles and the trailer section of the vehicle connects with a pivot pin just ahead of the power unit rear axle.

Steam is taken from the top of the boiler and fed to the cylinders via a simple ball valve regulator. The exhaust steam is piped from the bottom of the valve chest, up the outside of the boiler before entering the smokebox area with a blast nozzle directing the exhaust up the centre chimney. Extension tubes are fitted to the exhaust and safety valve vent terminating just above the cab roof.

So, how has this novel design worked out in service? The boiler certainly steams well and the engine water pump can deliver plenty of water. The gearing is probably about right - the railcar is no greyhound but sedate laps of the track certainly create lots of interest for the visitors. A few tweaks and adjustments have been necessary, but really no more than could be expected with a new design, albeit using many standard parts.

Invitation to Saffron Walden Club Warship Day

In Road n Rail 78 there was a short article about one of my fellow Saffron Walden Club members who had built a 5" Maxitrak Warship. Coincidentally, during 2015 the Saffron Walden Club was looking for a heavy duty 7¼" battery electric Club loco to handle the regular public running trains and opted for the 7¼" Warship from another supplier. It entered service early in 2016 running season and has seen regular use every weekend and several weekdays during the school holidays. Last September the Club held a 'Diesel Day' when several Club members brought along their diesel outline models including Berny's 5" Warship, Daphne's 5" Planet, Barry Nixon's Jubilee together with Martin and Cathy Houghton's Maxitrak Class 20. We also had a visiting 7¼" Warship, similar to the Club loco. We had a most enjoyable day and the many visitors to the site also enjoyed the wide variety of locos on display, especially a couple of parade laps of the track by all the locos.

After the success of the 2016 event the Saffron Walden Club are planning a 2017 event specifically for Warship locos and this will be held at the Club track at Audley End on Saturday 22nd July.

The Saffron Walden Club would like to invite MOC Warship owners to join them with their Warship locos for the event. For those wishing to attend the event organiser, Barry Nixon (a fellow MOC member) would appreciate you letting him know so that he can co-ordinate arrangements.

The Club site is next to the Audley End Railway near Saffron Walden, directions are on the Club web site www.swdsme.org.uk The Club also has a Facebook page 'groups/Picnic Field Railway'.

The ground level track is dual gauge 5" and 7¼", 1,300 feet long and runs around the perimeter of what is known as the 'Picnic Field', part of the track runs alongside the 10¼" Audley End Railway.

Planet Diesel locos

In Autumn 2013 Daphne and I decided to buy one of the ever popular 5” gauge Planet locos with the intention that Daphne could drive it when we went to MOC rallies whilst I was driving my Forney or Opal. It has proved so convenient to transport around that we often leave the steam locos at home and just take the Planet. Seeing that the Factory have a new version of the Planet in 7¼” gauge coming out this year, and that it will be available with petrol-hydraulic drive, this has created a bit of a dilemma - should we upgrade to the larger version or keep the convenience of the existing model?

Several years ago I was given a freelance 7¼” petrol loco with a ‘tired’ lawnmower engine, this was replaced with a single cylinder diesel and I fitted an Eaton hydrostat drive. Although very noisy and not the prettiest of locos, it has been very reliable and worked well. So, a replacement petrol-hydraulic loco is a possibility - it should certainly be quieter!

The photo on the left shows the bodywork on the new Planet 2 taking shape at the Factory, I’ll be particularly interested in the drive arrangement and the extra detail promised.

In the meantime I’ve been doing my usual research into the background of Planet locos and find they were built for both narrow gauge and standard gauge. Many examples have survived in to preservation.

The origin of the Planet loco can be traced back to the Kent Construction and Engineering Company of Ashford - after WWI, Kent Construction purchased a large number of Government surplus petrol locos which they reconditioned and offered for sale. These included both Motor Rail Simplex and also the American Baldwins. Kent Construction later produced a range of locos to their own designs based on the Simplex but were given the name ‘Planet’. Kent Construction closed in 1926 and Planet locos were then manufactured by Stableford and Co. of Coalville until they too went out of business in 1928. Planet locos were then built by J & F Howard of Bedford until they failed in 1932.

F C Hibberd and Co. was formed in 1927 specifically to build industrial diesel locomotives. In 1932 the company acquired the drawings, patents etc. from the liquidator of J and F Howard of Bedford; Hibberd moved to Park Royal in July

1932 and built locos to their own designs as well as those of Howard.

In 1964 the Park Royal works was closed and all production moved to Butterley Engineering of Ripley, the last loco was constructed in 1968 although a spares service operated from Ripley until 1986. The spares and rights to the Hibberd's are now owned by Alan Keef Ltd and they have acquired most of the extant drawings. Most of this background information came from the internet, including Wikipedia .

For readers interested in more details of Planet locos I can recommend the book '*The F.C.Hibberd Works List*' by John De Havilland and Brian Gent, published by Mainline & Maritime Ltd. It contains a wealth of detail including numbers of each loco type built, brief details of every loco including date built, engine fitted, track gauge and customer name. As well as the locos that we are looking at here, Hibberds also built many road vehicles, usually small tug type tractors for industrial use. A good example is the tug unit that used to be seen at the larger railway stations towing several trailers of mail bags. I understand another potential reference source on F.C.Hibberd is an article in Narrow Gauge World by Andrew Neil but I have not been able to locate which issue.

I did come across an interesting tractor based loco built for the Ford Motor Company - it used the engine skid unit from a 1950's Fordson Major in a similar way to the Standard Fordson used in Hudson Go-Go loco described in Road n Rail issue 74 . This could make an interesting project for a customised body for the Maxitrak 5" Starter Chassis!

As built, the locos were fitted with a variety of engines, the power being dependent on the size and weight of the loco, the Works List summarises the numbers built with each type of engine. In later life some of the larger locos were retro-fitted with bus engines from Gardner or Leyland. The drive was usually via a mechanical gearbox and, although many pre-war models had outside coupling rods, later models usually had a chain drive to both axles.

A distinctive difference between narrow gauge and standard gauge locos was the buffer beams - standard gauge models usually sporting a substantial buffer beam with large sprung buffers. Some of them also had the distinctive large step behind the front buffer beam, as we see on the Maxitrak model.

As production continued into the 1960's supplying a range of customers it is hardly surprising that many locos have survived into preservation including examples from some of the larger customers such as the Naval Dockyards and Guiness Breweries. Looking at the preservation lists it appears that over 30 locos have survived of which a third are narrow gauge. I've used the internet to find photos and descriptions of a selection of surviving locos that are broadly similar to the Maxitrak model.

Starting with a couple of narrow gauge versions, a couple of years ago whilst at the Amberley Museum looking at Hudsons, I got a photo of their Planet, see below left. The loco, a Y type Planet, works number 3627, was built in 1953 with a Ford 10 petrol engine and sold to North Brierley Sewage Works, Bradford. Two other Y type locos were built around the same time, these being exported to Australia. Compared to the Maxitrak model it has a slightly different cab design and does not have the shunter's steps at the front.

There is another Hibberd loco at Amberley, this works number 1980, built 1936, it is a reconditioned Simplex loco with a National 2D 20hp diesel engine.

The photo above right looks similar but is much older than the Amberley example. It was works number 2014, built in 1936 and spent its working life at Mines Safety and Research at Buxton in Derbyshire. It has a 20hp National 2D diesel engine and is 3ft gauge. Now preserved in Ireland by the Irish Steam Preservation Society at Stradbally it is named 'Nippy' and has mainly worked ballast and rail trains for which its low gearing is well suited. Since the late 1990's it has also spent some time working passenger trains, double headed with their 48DL Ruston loco and occasionally on its own hauling just a brake van.

There are three Hibberd locos at the Ffestiniog/Welsh Highland Railway - WHR have two, 'Upnor Castle', works number 3647 of 1954 and 'Conway Castle', works number 3831 of 1958. Both were originally supplied to the Naval Dockyards gauged at 2ft 6in, they have subsequently been regauged to 1ft 11½in and fitted with Gardner 180hp engines with some changes to the bodywork. 'Ashover' at the Ffestiniog was built as a 2ft gauge loco, works number 3307 of 1948. The bodywork, especially the cab, has been substantially rebuiilt.

Other narrow gauge survivors can be found at the Leighton Buzzard Railway, The Amerton Railway in Staffordshire, the Devon Railway Centre at Bickleigh, the Old Kiln Railway near Farnham and the North Gloucestershire Railway at Toddington.

Turning now to the standard gauge Planets, there are several examples preserved at around the Heritage Railway sites, some of the lighter models being quite different in appearance to our Maxitrak model. A couple of survivors are similar in appearance, these are locos at Chatham Dockyard the Bowes Railway on Tyneside.

The Chatham loco, 'Rochester Castle' was the first of a batch of 6 Hibberd locos delivered in 1955. The Admiralty specified a Foden FD6 engine, a 2 stroke diesel developing 105bhp and, as well as a different radiator, they also had an additional ballast weight behind the front buffer beam. This brought the weight up to 22 tons. Some had an extra casing on the side of the engine bonnet containing an Enfield engine driving a vacuum pump. 32 examples of the Hibberd type AD were built for several Admiralty sites. 'Rochester Castle' spent her working life at Chatham until the dockyard closed in 1984, staying there in storage until the opening of the Historic Dockyard the following year. The photo below left, taken by Jim Sellens, came from www.branchline.org.uk.

The Bowes loco, photo above right, is works number 3922 built in 1959 and spent its working life with the NCB Durham collieries in the local area. With the decline of coal mining in the 1970's she was surplus to requirements and was acquired by the Bowes Railway in 1979. The loco was built with a Dorman 6KD engine, a 6 cylinder diesel developing 168hp .

In 2010 the loco spent some time on loan to the nearby Beamish museum on shunting duties as their regular Ruston, being air start, did not lend itself to regular starting and stopping of the engine. Looking at the photo above it is interesting to note the distinctive front steps and hand rails that we see on the Maxitrak model.

The loco has seen frequent service in preservation employed on works trains and yard shunting duties but, according to the Bowes Railway web site, she is now confined to light duties pending repairs to the gearbox. The Bowes Railway looks to be a fascinating place to visit, I must put it on the list the next time I'm in the North East. The Chatham Historic Dockyard looks an interesting place to too!

The BR Class 25

The latest model nearing completion at the Factory is a 5" gauge version of the BR Class 25, a widely used loco in the early post-steam era, indeed I understand that railfans gave them the nickname of 'Rats' as they were seen everywhere!. The Class 25 was externally similar to the earlier Class 24 and were built at the BR workshops in Derby, Crewe and Darlington with some of the final batch being built by Beyer Peacock in Manchester. Altogether 151 Class 24's were built between 1958 and 1961 whilst 327 Class 25's were built between 1961 and 1967. With such a long period in production it was inevitable that there would be an evolution in the design so I will endeavour to describe some of the changes, particularly those that affect the external appearance. For my research I have used an excellent reference book 'Diesels in Depth - Classes 24/25' by David Clarke together with some very useful web-sites including Wikipedia and www.derbysulzers.com.

Starting with a photo of the Maxitrak model (above left) has the head code box above the cab windows with the air horns still to be fitted. Earlier models used head code discs to denote the type of train replicating the indicator lamps fitted to steam locos. Later in their service lives the head code display was dispensed with, the locos just displaying two white lights (as shown above right on the Class 25 now resident on the North York Moors Railway, the photo being taken from their web site).

The next most visible feature is the inter-connecting door on the cab front, or in the case of our loco the lack of it. When the locos were initially designed there was a requirement for these doors as were fitted to several other classes at the time. However they were rarely used and were very unpopular with the loco crews as they were very draughty so many of the doors were removed and the aperture plated over. From Class 25/2 onwards the cab front was redesigned to remove the doors altogether and fit a full depth centre window giving the loco a much tidier appearance. The NYMR loco above is from the final 25/3 batch but these a re externally identical to the Class 25/2.

Another change introduced on the Class 25/2 was the position of the engine air intakes - on earlier versions these were positioned lower down on the body sides but some comparative tests at Inverness between Derby built locos and the similar BRCW Class 26/27 showed that their higher positioned air intakes resulted in less debris getting to the air filters and clogging them affecting performance and engine wear. The intakes were repositioned to the cant rails on the 25/2, on the edge of the roof next to the body sides.

Although the Class was primarily intended for freight use many were fitted with steam boilers for use on passenger trains. Initially the locos were vacuum brake fitted, many being converted in service to dual fitted, The last 10 of the 25/3 sub class were dual fitted from new as by 1967 this brake fitting was the norm.

Just to complicate matters, the first 10 Derby built 25/2 (D7568 - D7577) and the last 20 from Darlington (D7578 - D7597) used the old body with interconnecting door and body side air intakes so cannot be used on our model.

So our model can be finished as either a 25/2, having a number in the sequence D5233 - D5299, D7500 - D7567 (TOPS 25083 - 25217), or 25/3 numbered D7598 - D7677 (TOPS 25248 - 25327). The livery depends on the period of operation chosen - with the exception on the last 18 25/3 (D7660 - D7677) they were all initially finished in 2 tone green, like the NYMR example with a small yellow warning panel, but were later given the BR corporate blue livery. The final 18 were delivered from new in corporate blue, 2 with small yellow warning panels the others with full yellow ends.

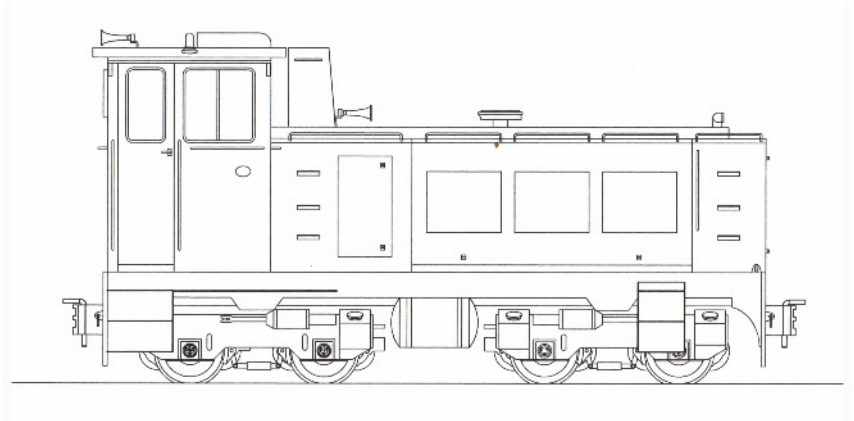
If one wanted to finish their loco in a very distinctive livery one should consider one of the ETHELs - 3 Class 25 locos were converted to Electric Train Heating Ex Locomotives. The traction motors were isolated so could not run under their own power (perhaps Andy could supply a Class 25 without motors and electrics?). They were used with the Mk3 sleeping cars on the Glasgow - Fort William line where the carriages only had electric train heating and the locomotives hailing the trains were not so equipped. The livery was same as the carriages with 2 tone dark and very light blue, the cab ends no longer being yellow. In 1986 ETHEL 3 was moved to London Marylebone to provide train heating on steam specials, it was repainted in to InterCity livery. Apparently it was notoriously unpopular with railway photographers at the time!

So, there are many factors to consider when choosing a specific model and operating period. As ever, the best advice is to try find a photo to get the right combination, David Clarke's book will also make make an excellent reference.

Jeff

Bogie locos built by E M Baldwin

A couple of years ago, in Road n Rail 77, I included an article on the Australian 2ft gauge railway system used for carrying large quantities of sugar cane for processing. In this issue's Factory News Andy tells us that a batch of the 5" gauge models of the Baldwin bogie loco are expected later this year. No photos yet but Andy sent me a drawing of the Maxitrak model (see below) to give readers some idea what it will look like.



Whilst researching the sugar cane railways for Road n Rail 77 I came across an interesting book 'Built by Baldwin' by Craig Wilson that gives a comprehensive history of the E H Baldwin & Sons of Castle Hill, New South Wales - not to be confused with the Baldwin Locomotive Works in Philadelphia that, having produced over 70,000 locomotives, went out of business in 1972.

In 1930 the Avonside Engine Company built the pioneer canefield 2ft gauge diesel bogie locomotive for an estate in Natal followed by another example from the Hunslet Engine Company in 1938, Hunslet having taken over the business interests of Avonside. The Australian mills showed little interest in bogie diesels, even up to the 1960's.

Frank Baldwin was convinced that the future lay with bogie locomotives and by the mid 1960's set about trying to persuade his Australian customers too. He was aware that conventional locos at that time were damaging the track with the hammer blow from the side rods which also limited maximum speeds. Although bogie locos at that time would be more expensive to manufacture he argued this would be much cheaper than major upgrades to the track.

After a number of unsuccessful tenders offering bogie locos the breakthough came in 1971 when the Kalamia Mill issued a detailed specification for a loco that had to be able of haul a gross load of 750 tons on the level at 16mph and 5mph up their steepest gradient. Calculations showed that an engine of 316hp

would be required and this time the quoted cost for the bogie loco was actually slightly cheaper than the side rod equivalent. The tender had been dispatched on 6th December 1971 and 10 days later came the good news with an order for Baldwin's first canefield bogie loco - with a stipulation that it had to be commisioned at the beginning of May in time for the 1972 harvest. Fortunately the crushing season was delayed and the loco was despatched on the 9th June. The loco was named 'Kilrie' and is shown in the photo below, the photo coming from the cover of Craig Wilson's book.

The new loco created a lot of interest amongst engineers from other sugar mills resulting in an order for the second loco in October 1972 from the Bingera Mill. Delivered in July 1973 it would be named 'Givelda'. The third loco was ordered by the Millaquin mill in June 1973 to be delivered, as promised, the following November.

All three locos used a Caterpillar D343 - 'Kilrie' used the D343TA version rated at 365 hp, 'Givelda used a D343T version rated at 318 hp, whilst the Millaquin loco used a D343TA engine derated to 220 hp. The engines were connected to a Niigata torque converter directly coupled to a Baldwin designed reversing gearbox. Drive shafts then took the drive to each bogie with a further drive shaft to the outer axles on each bogie. Axle drive was via a crown wheel and pinion, a constraint on the crown wheel housing being the space between the wheels and on the diameter to give clearance from the track. The locos also had a compartment behind the cab housing air cylinders for full train braking, however this obstructed the driver's vision when coupling up to the cane wagons so was deleted on later models.

Although both 'Kilrie' and 'Givelda' had some early problems with their Caterpillar engines, all three locos were performing as promised. As could be expected with a new design, there were a number of items listed for future improvements and by now several other mills were now showing a keen interest.

By 1973 another change was taking place in the Australian sugar industry with a switch from hand cutting the cane to mechanical harvesting, this created a demand for faster transport of the chopped cane to get to the processing mill before it deteriorated. There are some interesting movie clips on Youtube of the mechanical harvesters at work, the harvested cane being transferred to nearby sidings and the awaiting trains.

The demand for greater top speed brought about a need for greater engine power resulting in offering a GM V12 engine rated at 475 hp. With an uprated Niigata torque converter and a hydraulic retarder built in to the reversing gearbox to assist braking on the downhill sections of the line, the final drives also had to be uprated to cope.

When the cane wagons were unbraked considerable shock loads were developed when the train stopped, putting a lot of strain on the gear drive. One way to reduce this was to position a slave loco two thirds of the way down the train and command it by radio control from the leading loco., The first such locos fitted were delivered in 1975 and tested over the 1976 and 1977 crushing seasons.

Baldwins had cornered the Australian cane market for 2 ft gauge bogie locos delivering some 47 bogie locos between 1972 and 1983 and although there would be problems with the final drives the locos delivered what they promised. In some ways they were perhaps a victim of their own success - they introduced their operators to much heavier train loads than they had been used to, there may have been a tendency to try even heavier train loads which only put more strain on the gears. However there were other problems on the horizon. The early 80's saw a period of high inflation in Austrailia and orders started to dry up. In 1984 the decision was taken to close the Castle Hill Works transferring remaining work to Rooty Hill. In July 1985 the Receiver was called in.

So what has happened to the Queensland sugar cane railways since then. Back in 1966 the Queensland Railways had tested a diesel hydraulic bogie loco built by Walkers, subsequently buying 73 examples for shunting duties on their 3ft 6in gauge system. 29 have since been regauged to 2ft and have found a 'second life' working for the sugar mills. These locos are somewhat larger than the Baldwins being twice the length at 41ft 6in and much heavier at 37 tons (many of the bogie Baldwins weighed 24 to 26 tons with some heavier examples ballasted to 32 tons). Interestingly, the power of the ex-Queensland locos at 470hp is similar to some of the higher powered Baldwins.

So, what can potential owners of the Maxitrak model learn from all this? Perhaps the first thing would be to check out the internet to find a copy of Craig Wilson's excellent book, copies were available in the UK the last time I checked. The next thing would be to check out Google for photos, if you wish to modify the livery to a particular sugar mill. The final thing, which would certainly please Andy!, is to buy a second loco to use at your Club track with a heavy load of passengers, the second loco being part way along the train and controlled remotely by the front driver! Even with two 5" gauge locos coupled up to 7¼" passenger carriages this would be a unique experience.

Jeff

Visit to the Nene Valley Railway Diesel Gala

In Road n Rail 80 I wrote about the Class 55 Deltic, one of the new models underway at the Factory so when I discovered that a Deltic would be visiting the October 2016 Diesel Gala at the Nene Valley Railway I decided it would be worth a visit. I'd already made arrangements to visit the Midlands Model Engineering Exhibition on the Saturday so was pleased that the Gala event started the previous day. Some of the other visiting locos had links to Maxitrak models so an article for the magazine was in the making.

Checking the NVR web site for details of the event I found that as well as the Class 55 there was also to be a Class 45 and also a 46 plus there had been plans for a couple of Class 20s but they did not materialise. A Class 26 would be visiting - these are similar to the Class 24/25 with a Sulzer engine but the locos were built by the Birmingham Carriage & Wagon Works instead of the BR workshops. The Deltic would be running brake van rides from Orton Mere station down the Fletton Branch towards the East Coast Main Line so it would be necessary to ride behind one of the other visiting locos first from Wansford to Orton Mere. For our first part of our journey we were hauled by a Class 47 - nothing very special about that some would say!

Leaving the Class 47 and train at Orton Mere we didn't have long to wait before the distinctive sound of Napier two stroke diesels heralded the arrival of our Deltic with a very short train - just a couple of brake vans. It ran through the station on the far line, see photo below left, before returning for our departure. Luckily we were able to get a place on the balcony immediately behind the loco so we would get the full benefit of the sound effects. With the track speed limit of 25 mph and such a short train the 3,300 hp available was hardly stretched above tick-over. Even so it was still very impressive. On the return journey, as can be seen the photo above right, we were fairly close to the air horns which were rather loud! The driver gestured to us to put our hands over our ears.

Our loco was 55022 running as 55007 'Pinza'. Looking at the 55022 web site I

see it is now running as 55018 ‘Ballymoss’ and has returned to Grosmont to work on the North Yorkshire Moors Railway.

We returned to Wansford behind 50008 ‘Thunderer’ for a look around before taking another return trip to Peterborough, this time behind 26007. Elsewhere in this issue of the magazine I have been researching Class 25, a 5” gauge model of which is underway at the Factory - the Class 26 is similar in appearance to some of the earlier 24’s and 25’s and used a similar Sulzer engine to the Class 24’s. They were built by the BRCW and spent much of their working lives on the Scottish Region. The example running at NVR was originally numbered 5300 and was the first example of 47 built, one of 13 that have survived into preservation it is now based at Barrow Hill near Chesterfield.

The photo above left shows 26007 at Wansford whilst above right we see another loco for which there is a Maxitrak model - this Sentinel diesel is based on the NVR. On one of the adjacent sidings we can just see the visiting Class 45 and Class 46, a Maxitrak model of which used to be in the catalogue some years ago.

Whilst researching more information of the visiting locos I came across an interesting movie clip on YouTube that showed 45041 being delivered by road by Allelys Heavy Haulage, specialist movers of preserved (and modern) railway locos. Now a Class 45 is some 68 feet long and weighs over 130 tons so a rather special trailer was required to carry it. The trailer used had at least 12 axles, most of which could be steered remotely so reversing was made much easier than you or I would do with a car trailer! I was most impressed to see the load reversed in to the station yard and neatly lined up with the unloading siding. For readers with access to Youtube use ‘45041 low loader’ as your search criteria.

We had a most interesting day at the Nene Valley Railway, particularly seeing the Deltic at close quarters and also riding behind some classes of diesel loco that were rarely seen around Cambridge in BR days.

Jeff

Factory News Winter 2017

The first item to report is the arrival of the next batch of 5" gauge Planet locomotives. They have come in four colours, maroon, green, yellow and blue. If you want a blue one don't hang around as there are only a couple available.

Talking of Planets, we have had a bit of a revamp on the 7¼" gauge Planet 2 design. A new chassis with outside frames means we can now offer this loco in 5" gauge and as a petrol hydraulic, like the old Simplicity 2. The electric version has a new geared motor, one to each axle giving over 600 watts of power. The body and detailing are the same as the earlier version of this popular loco.

We are also expecting a batch of the new Australian Baldwin narrow gauge sugar cane railway diesel locos later this year. They are in 5" gauge and look like a double length Planet, but with their own distinct style and yellow livery. It is a double battery 24 volt locomotive with eight motors so plenty of power. These sugar cane railways are not well known this side of the world but represent some of the largest narrow gauge industrial lines still in use anywhere. It is not unknown to have trains of over 1000 tons with two locomotives, one at the front and one in the middle, all without any continuous brake system. There is a brake van on the back of the train, this and the second locomotive are radio controlled from the front locomotive by a single driver! One wonders what your local model engineering society would make of a miniature version of this train!

There are articles on the Hibberd Planets and the Baldwin bogie locos elsewhere in this issue of the magazine.

The Allchin traction engine continues apace, with a limited supply of green and no black available. The crane and showmans engine conversion sets are still popular, with many heading abroad.

While on foreign traction engines it is worth noting that we do not have a lot of the 1" scale American Case engines left in stock.

If you don't see an engine to take your fancy on the new build list then it is a good idea to check through the second hand list on line. This list is changing on a regular basis and offers anything from a humble rebuild or part built project up to some splendid full main line locomotives.

The range of four wheel narrow gauge Kent wagons continue to offer an economical way to run proper trains on your garden railway. They are also quite light to carry around, an advantage to those of us advancing in age. Look out for the new slate wagon in the range, ideal for Alice to pull.

We are all looking forward to the new season, running new trains and meeting old friends, or even the other way round!

Andy

Two recent photos from the Factory - above we see the Class 25 body approaching completion whilst below are a pair of 7¼" Ruston 2's fresh from the paint shop.

7¼” gauge SE&CR R1 loco

This long lived class of tank engines started life in the 1880s as the South Eastern R class, designed by James Sterling, some 25 being built. In 1899 Harry Wainwright took over as Chief Mechanical Engineer of a combined SE&CR and LC&DR, he set about rebuilding some of the older engines including the R class tank engines.

The model faithfully reproduces this engine in 7¼”gauge, with all the style and Victorian elegance of the original. It has a copper TIG welded boiler with both hand and crosshead pumps. There is a screw regulator mounted in the smoke box. Steam from the boiler is superheated and then fed into a cast iron cylinder block mounted between the frames.

There are two cylinders with piston valves operated by Stephenson’s valve gear. A displacement lubricator is mounted under the front footplate, other fittings include whistle, water and pressure gauges, blower, boiler blow down etc.

Key dimensions:

Length 1208mm, Width 318mm, Height 503mm
Weight 118kg (dry)

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