

**Reading Society
of Model
Engineers
Charity Number
1163244**

The Prospectus

February 2025



**President
John Billard**

**Secretary
Stuart Kidd**
07966 278968

**Editor
John Billard**
john@jegbillard

.plus.com
01189 340381
07834 998971

**Free to members
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This engine was built by Easton & Amos of Southwark, in 1863 and came to Kew Bridge from the Cliftonville Pumping Station in Northampton as a “kit of parts”, where it had been in storage. Photo John Billard 26 January 2025

**HERDWICK
M6 TO WIGAN
HORNBY IN 5 INCH
UGLY ENGINES
VISIT TO CANNON ST
CLUB TALKS**

THE VIEW FROM THE CHAIR

John Billard

We have had a cold and damp start to the year! This was especially the case for our public running on 5th January which turned out to be the quietest I can remember for a long time. By 2 pm most of us had had enough of standing around in the rain and wet and we decided to call it a day. It was at that point a family arrived and thanks to Alex and the Jones brothers there was still a train available for them to take. I for one was glad I didn't have an engine to put away and thanks to all our members who turn out on such occasions particularly when the cold and hard work is not ended when the trains cease to run.

Our first trustees meeting of the year was on 13th January. For this time of year we are experiencing a reduced income and therefore we have to keep our expenditure in hand other than for essential maintenance. Such jobs include maintenance on the tracks particularly the raised track where there has been some slippage of the rails attended to. Also it is necessary to improve the signals at the entrance to the ground level station, look at the storage of steam oil end paint the ground level steaming bay which has not had such attention for a long time. Some of this will have to wait until the weather improves.

We have looked at the accounts for the Santa specials in December. This has produced a good surplus and we would like to thank Peter Culham and Donald Pickett for all the work they did in preparation to make it so successful. On the subject of private parties we are considering a slimmed down programme to meet the needs of the organisers particularly Peter who puts so much effort into it at the cost of his own time.

We are hoping to organise an open day for 2025 which is hoped to take place in late May or June. Andy Midwinter and Stuart Kidd organising this which would take place during our scheduled club running dates.

Finally, we have had some debate about safe means of coupling engines to trains. A proposal that solid bar couplings be used has not met with universal approval in some cases. Taking safety at public events as an imperative we are looking at this again to meet any questions that have arisen.

The next trustees meeting will be on 10th February.

A PLEA FROM THE EDITOR

Contributors, please, please do not use fancy formats, fonts or colours. It takes me ages to convert it and it takes time I don't have.

Submissions please in Word with headings 14pt Bold Arial Narrow and text 11pt Times New Roman. If it looks like Prospectus format, its ok.

Photos in separate files attached to the e mail. Max size 1.5 Mb.

If you can't manage that please contact me first so we can find a solution. There are times when I would prefer hand written stuff!

08 UPDATE

from Mike Manners

On the second Saturday of the Santa weekends the weather was so much better than the previous weekend. I took the repaired Class 08 coupling rod to the Club with every intention of trying it on the loco. I had spent the previous few days repainting it with the yellow paint provided by Alf. I hate yellow paint! I lost track of the number of coats needed to get a reasonable coverage.

As soon as I arrived at the club I pulled the 08 out of the bunker and settled down to try and fit the repaired coupling rod. Would it fit? Had I got the length correct? Well, that was easy, a little bit of wiggling about and the rod was on. I fitted the locking nuts that hold it in place making sure they were suitably tight. I did not want the coupling rod dropping off again and having to do the job a second time. One of the locking nuts needed a bit of work to tighten it up but that was soon done.

I then took the loco for a number of circuits of the ground level track before checking it over. All was well. The 08 sat in the ground level station on the loop track for most of the morning and was eventually used to shunt a couple of the riding trucks back to the ground level steaming bay when one of the other locos had problems. I was quite surprised when I got to the steaming bay as I discovered that the vacuum brakes on one of the trucks was still on. The 08 had done well to shift it! I think we can consider the 08 back in service. Just a few cosmetic repairs to do but nothing that will prevent it being use.

Oh, I must remember to charge the batteries.

Why “Herdwick” for my new engine?

by Bill Piner

And why Narrow Gauge?

In my early years I was interested in “OO” modelling and continued through to when we bought our current house in 1976. I then followed a trend promoted by the Railway Modeller, modelling “OO” in the garden. With a large volume of earthworks and laying of



of concrete, an extensive railway was built. This lasted until early 1990s when for many reasons I decided that “OO” in the garden wasn’t practical, and I rather embarrassedly removed it all.

My parents’ in-law owned a holiday cottage on the Dingle Peninsula in Kerry, Ireland, and on visits there I discovered the remains of the Tralee and Dingle Railway and developed an interest in Irish narrow-gauge rail-

ways. I luckily had a ride behind Tralee and Dingle No.5 before her boiler ticket expired, at about 2006, and now lies dismantled in its shed near Tralee. I have more recently visited The West Clare Railway at Moyasta junction and saw the restored loco “Slieve Callan” (again a No. 5). This loco appeared to be huge for narrow gauge, more like standard gauge on 3ft tracks.

I have now visited a number of narrow-gauge railways in England and Wales and have focused my interest on the Lyton & Barnstaple Railway, and I am a member of the L & B Trust.

Returning to the Garden Railway idea, a friend was building a LGB garden railway, impressive, but looking at this myself in 1995, I found Garden Railway Specialists in Princes Risborough. Here displays of 16mm narrow gauge railways caught my interest, purchases were made and a L & B themed 16mm narrow gauge railway on 45mm track was built for my garden. This might be a subject for another article, but this led onto my visiting the 16mm NG garden railway and Model Engineering exhibitions.

At one of these shows, were Polly Engineering, with the Polly Owners Club portable track, and a Station Road Steam stand. I had assumed that 5” and 7 ¼” locos were built by owners or as one-off commissions, and I wasn’t aware that there were Loco Builders in the larger scales with standard loco ranges for order. Now the skilled standard gauge loco builders might want to turn away at this point, but not being a loco builder, I thought that Station Road Steam narrow-gauge designs with, large cab & easy access into the controls, domestic plumbing fittings, and outside valve gear would fall within my limited experience to run and maintain a loco.

Around this time, I joined a model railway club at Greenham Church and found the club leader was intent on building a 5” gauge railway in the Church grounds. Heavy earth works were needed to build the track bed starting in about 2017, which carried on through the Covid years. To provide training and insurance cover the Greenham Club members joined The Reading Society of Model Engineers and had a training day with Stuart Kidd. I purchased a 5” gauge Sweet Pea and started attending the Prospect Park Railway running it on the raised track.

Having seen the Station Road Steam Locomotives again at following exhibitions I had built up a desire to own a similar loco. I had assumed that most 7 ¼ narrow gauge locos had steel boilers which put me off because of the implications of testing. From regular searching through ride on steam locomotive sales web sites, I found Preston Services advertising two 0-4-0, Walsheart’s valve gear, slide valve, copper boilered Romulus locos for sale, but on enquiring, they had been sold some time before. I was totally smitten. I believe one of these is in the Station Road Steam Archive, Ref 6529. This initiated constant web searching for several years looking for a similar loco and eventually I found Herdwick for sale on the Station Road Steam Web site. I made the purchase, and part exchanged the Sweet Pea last September.

A bit about Herdwick.

The Romulus is a generic narrow gauge 0-4-0 design by Roger Marsh with Hackworth Valve Gear and slide valves. A Frank Birchall “Maggie” development of Romulus offers improvements such as Walscheart’s valve gear, piston valves and 6 driving wheels.

Herdwick’s design has 4 driving wheels, Walscheart’s valve gear and slide valves, much the same as the locos that were for sale at Preston Services. The boiler was built by R Blackburn and tested in 1995. The boiler then had an initial hydraulic test in 1997, I assume on the frames, at West Riding Small Loco Society and a first steam test in 1999. The owner was Conrad Todd, and I assume he was the builder. Conrad Todd owned Herdwick until 2006 during which only the one 4 yearly Hydraulic and Steam test were recorded. Perhaps she was used infrequently. I have recently been loaned some 7 ¼ Gauge Society Magazines and Herdwick appears in the 50th anniversary magazine 1973-2023 on page 21 with Mrs Todd driving. This photo will have been when Herdwick was in a nearly new condition, and the current painting and lining looks to be the original, but the valve gear was, back then, painted red.

Herdwick then moved to York where she appears to have stayed under two owners. Searching on You-Tube I have found two videos, “Herdwick at York Model Engineers Easter Steam Bash 2016”, in much as in original condition, and “Out and about. The York Model Engineering Society” where Herdwick is shown undergoing it’s 2021 Hydraulic Testing. Again, appearing much as

in original condition and still with red painted valve gear but with re-railing bars now added.

Before being sold to Station Road Steam the red paint had been removed from the valve gear, which probably needed to have parts removed for cleaning. Was other work done? I am trying to contact the previous owner, through the York Society Secretary, to have a short e-mail correspondence on the recent maintenance. I have not yet had any response.

I had a trailer and luckily Herdwick fits perfectly. October was spent devising a carrying track and strong hold down system for Herdwick in the trailer. A trailer is a rough ride for locos, especially over the speed bump by the Reading





ground level track, level crossing! I took her with the help of John, to Reading on 26th Oct club running where I was concerned to see her steaming and haulage capacity. All six ground level carriages were put on behind and with a few hardy club members as passengers, she managed quite well. I don't know if any member has a strain gauge/dynamometer, but the question now was

does that equate to 2 or 3 carriages well loaded. The Santa's loadings seem to indicate that this is a reasonable assumption. On the 2016 you-tube video she is seen running with a large scales weight on the front buffers beam. I will need to check axle loadings to see if a weight between the frames behind the front buffer beam will possibly increase traction. One aspect of narrow-gauge loco designs is that the tall chimneys create a considerable draw on the fire without worry about chimney petticoats and Herdwick has shown an ability to produce excess amounts of steam. A tender/driving truck from Ride-On-Railways may arrive at the end of January and will be fitted for vacuum braking for public running and use at other tracks.

Photos

- 1) Herdwick, after purchase, on my service trolley at home.
- 2) My First Steaming at Reading on 26th Oct 2024 with test train of all six ground level carriages.
- 3) First public running at the Santas December 2024 (P Culham)

THE ROAD TO WIGAN FOR A 75TH by David and Lily Scott

Way back in the summer of 1969 Grandad (who had once worked for Cheshire Lines) took us out to stand on a new bridge over the M6. We stood and waited while a lonesome car passed under and went on its way. Another did the same northwards. Fast forward to the summer of 2024 and Lily and I were sat under the same bridge waiting for the mass of traffic to move. I drove and sat under the next bridge and then the next. We arrived late.

49 years ago I started my first lunchtime in the school library in Crediton, Devon with great thanks to Mrs Tye my English teacher. I looked up from a half-eaten packed lunch to the other end of the big bench used for covering books, to observe a drawing. "A Great Western Mogul" I noted. Alan Wilson smiled and invited me to his dad's workshop.



Alan W greeted us late morning and made us very welcome to the WIGAN CLUBS 75th ANNIVERSARY. We had kept in touch all through the ups and downs of life between. The internet had helped and I had joined his dad's internet group of like-minded friends, usually accompanied with a very bad joke or cartoon. He left to greet someone else braving the

thick black mud of the woodland track and unload another model.

Another friend we had met at the Maidstone track showed me his latest. The inside valve gear was a Joy to behold. Alan C. had a string of superb models under his belt all winning top awards followed by articles in the Model Engineer. We fell into conversation about his Gold Cup winning Coat of Arms at Doncaster. As I had many years before found and photographed in a Torquay museum. A superbly painted full sized example and sent it up via Alan W. via the internet. They had taken almost a month to create from etchings built up and of course painted, The Midland Single never stood a chance. I hinted.



On Facebook one of my many railway mad friends is Lee Worthington. And chatted to Lee about the club who are not on mains power but have an infinite supply of timber for the wood burner in the clubhouse, There is a supply of coal on site but it tends to melt firebars and it is somewhat explosive. Plus most of the membership are beyond in years to go and dig it up!

All trains stopped and we gathered in the station as the Mayoress has been invited on this special occasion. drove the train superbly round the track. Noted that the council had donated many, many thousands to the narrow gauge railway that once ran in another part of the park. It was being revived.

A few had braved the rain but most of us were huddled in the clubhouse, concrete structure giving about as much room as the Reading club's new workshop without the contents. We shared the vast assortment of chairs and taking turns under the Gazebo. I gained a new friend with a Hymek and a superbly printed out grille with of course a working fan.

We headed back after lunch via another set of diversions and eventually found the M6 still full and very slow.

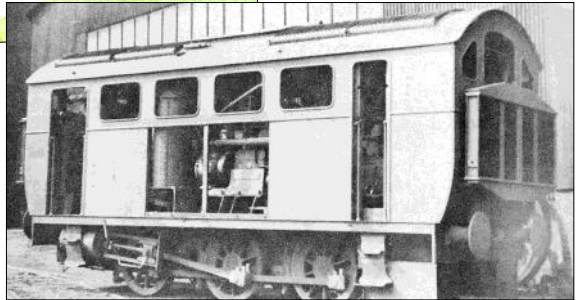


The article to which this photo and caption refers is the first part of the section on "Diesel-Compressed Steam" transmission systems which published in the December 2024 edition of "Prospectus". The second part of the article describes the Holcroft-Anderson Recompression Locomotive, which is basically the same system but applied to a fully steam locomotive. The locomotive chassis was converted into a conventional 0-6-0ST named "Stagshaw" which went on to work at Shotton Colliery and is currently preserved on the Tanfield Railway.



Photo
Roger Cornfoot

Alec Bray adds to his article published in the December 2024 issue showing an unusual survivor.



A 5 INCH GAUGE HORNBY

by Terry Wood

All the electric locos that I have built so far have all been steam outlined so I thought its about time I made a diesel outlined loco. I decided to base it on a shunter built by Hornby on a 00 gauge so bringing it up to a 5" gauge would be interesting although sometimes this doesn't quite work out as you intend. It's a simple and basic design only being 0-4-0 without any connecting rods on the wheels so can be built using a single bogie which save a lot of time and would also be fairly easy to carry about.

The first thing I did was to purchase a 10ft long piece of 1"x1" angle iron from Berkshire Metals and then using an angle grinder cut out sections with 45degree slots so that an oblong chassis could be made up and by cutting a slot on the opposite side a sharp right angle could be made this was done for all

four sides and then the two ends were stick welded into position so that the whole chassis looked like a picture frame. Once that was done, I spent what seemed like an age bending and twisting it until it was perfectly flat. I then made up two cross members using the same angle iron in order to mount the bogie on to the chassis.



The bogie was in a bit of a sorry state having been used to carry passengers all the time and when I took it apart some of the wheels were loose having been spot

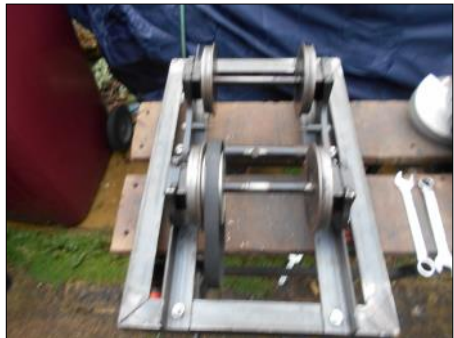


welded to the axle and had come loose so I ground all the welding off the axle and wheels de-greased them and then held them together using Loctite 603. One of the axles was also badly worn wear a bearing had seized up at some point this made the axle wobble about in the axle box so I machined the axle down on the lathe and only used one of the two bearings to carry the load and the other one as a spacer, this stopped the axle box from

wobbling about and seeing as the bogie was no longer being used to carry passengers it should be ok.

After sorting out the bogie and attaching it to the chassis I now had to sort out how I was going to drive it, I purchase a motor and two driving pinions and a toothed belt the pinion on the motor was the smallest I could get and the one on the axle was the largest this gave a gear ratio of about 6:1 which is just about ok so long as you don't have too many passengers! I then mounted the motor on to the chassis then lined up the two pinons and belt to get the correct tension and then drilled the holes to bolt the motor on to the chassis.

Once all this was carried out I bolted the club speed controller that I had fixed to the motor and with the driving wheels lifted off the ground I noticed the driving pinion on the axle was running very unevenly this was because the hole in the pinon was metric and the axle was imperial so I did away with the grub screws and also fixed that on to the axle using Loctite 603 and trued it up before the Loctite set. I then made two more cross members in order to clamp the battery up so that I could take it for a run on the club's track to sort out any problems and the first



thing was the coupling I made wouldn't fit on to the trolley but after some re-adjusting I managed to fit it and take it for its first run.

At the moment it looks a bit strange but that's because it doesn't have a body but that for another story.

To be continued

Is there such a thing as an UGLY Steam Locomotive? Part 1 **by Alec Bray**

“Beauty” in design is when “form follows function” - this is an idea that came from 20th-century modernist architecture, and it suggests that an object's appearance should be subject to the object's intended function or purpose. “Form follows function” was popularised by the American architect Louis Sullivan and it has had a considerable influence on modern design in all spheres of design and engineering, not just architecture – to the extent that designers have often seemed to forget about “beauty” in favour of something that is purely utilitarian. When “function” has become the driving force behind design, beauty is increasingly considered inefficient, of little worth, even excessive.

This is surely a mistake. “Form” – the shape and appearance of something - must be allowed to progress naturally into something that is both beautiful and functional. One feature of our human evolution is our ability to infuse some “beauty” into our creations. Design becomes a key component in shaping the first impression between the product and the consumer.

So designers should try to create products which are both beautiful and useable: as an example, the Western Region “Western” (class 52) diesels' overall appearance was tidy and symmetrical in every dimension - the epitome of good design. Humans are attracted to beauty and while standards of beauty differ across cultures, people prefer to look at a beautiful item, be it a website, car, another person - or indeed, a steam locomotive. Unfortunately, “Beauty is in the eye of the beholder,” so one person's “beauty” is another person's “beast”.

Where designers or engineers have not considered how an item looks, but

have instead just concentrated on one or other part of an item's functionality, the outcome is not usually “beautiful”. So here are some contenders for the title “the Ugliest Steam Locomotive” in the world...

RENFE CLASS 140 2-8-0

140-2438

Franco-Crosti boilered locomotives could never, by any



stretch of the imagination, be considered “good looking”, but this Spanish steam locomotive is a strong contender for the title of the “World’s Ugliest Locomotive”. The idea of the Franco-Crosti boiler is that the feed water for the boiler is pre-heated by the exhaust steam, and in this locomotive the feed-water heating reduced coal consumption by anything up to 19% - a considerable saving. However, only three locomotives of this type were made – the last one in early 1970 (!) - with the boilers being made in Italy. Although the locomotive crews had a rather steep learning curve in respect of the operation and maintenance of these locomotives, the locomotives proved to be reliable and capable machines in service: but in the end diesel locomotives reduced the need for coal-fired external combustion engines. .

Unfortunately, the front end of this locomotive looks just like the timing chain cover on the engine of my first car! *To be continued*



Open Viewing Afternoon

Saturday March 29th

14-30—17.00

Inspired by Southern Region’s Cannon St station in the late 1950s, a DCC operated 00 loft layout designed or operation by a small group. Come and see! **George Saffrey 61 Grosvenor Rd, Caversham RG4 5ES**



DIARY

FEBRUARY 2025

Sunday	2nd	Public running	Setting up from 09.30 onwards
Saturday	8th	Club running	10.30 onwards
Monday	13th	Trustees meeting	19.30
Saturday	22nd	Club running	10.30 onwards
Thursday	27th	Club Talk Jo Alexander-Jones More than Beer, Bulbs and Biscuits	20.00

MARCH 2025

Sunday	2nd	Public running	Setting up from 09.30 onwards
Saturday	8th	Club running	10.30 onwards
Monday	10th	Trustees meeting	19.30
Monday	22nd	Club running	10.30 onwards
Thursday	27th	Club Talk Graham Bilbe Trolleybuses, Inside And On Top	20.00

CLUB TALKS

Thursday 27th February by Jo Alexander-Jones

Reading is known for biscuits, beer and bulbs. Whilst these industries were important, there was so much more. This talk looks at some key examples including Huntley, Boorne & Stevens tin makers, the Reading Ironworks and Katesgrove and Waterloo brickworks.

Thursday 29 March by Graham Bilbe (rescheduled)

After some 50 years maintaining and driving trolleybuses there is not much that Graham does not know about these electric vehicles.

Thursday 17th April by Christian Wolmar

For our last talk of the season RSME welcomes a well known author and broadcaster to introduce his latest book *Liberation Line* that tells of the amazing feats to restore vital railways in France after the D Day landings.

Opinions expressed in PROSPECTUS are the personal views of the contributor and cannot be taken as reflecting the views of the trustees or editor.

The deadline for the March issue is 20 February

Contributions may be submitted in hard or soft copy to the editor.

*John Billard Old Station House Twyford Reading RG10 9NA
01189 340381 or 07834 998971 john@jegbillard.plus.com*