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Manning Wardle 1210 "Sir Berkeley" at Park Halt with our Youth Team, on the occasion of the "Youth Takeover" day on 6th August. This was the day of the presentation to the team by the HRA of their award as runners-up in the category "Rising Stars".

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The Old Run

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Our Chairman speaks:

As I write these notes the 2023 season is drawing to a close and we can start to prepare for the Santa Special season.

Once again the Middleton Railway has triumphed in the Yorkshire in Bloom Tourist Attraction Category. For the fourth time in succession we have won a Gold Award. This is a tribute both to the hard work of Mick Jackson and his team who have looked after the grounds and to the work of Mick Jackson, Janet Auckland and Ian Smith who put together the comprehensive booklet that is required to support an application to take part in the competition. This year the floral display was extended into the car park and with help from working parties from Keltbray Engineering and Leeds City Council the entrance was tidied up and fencing repainted, which helped to make Moor Road more welcoming and attractive to visitors.

In some ways 2023 has been the reverse of 2022, with visitor numbers and revenue on ordinary running days exceeding expectations but attendance at special events and revenue from those events being below expectations.

This result is not a reflection on the quality of the events that have been run in 2023; feedback on '90+ Years of the Diesel', 'Children's Day' and the September Gala as well as the other events has been excellent. They were all a credit to the Railway and those who organised them. In part this result may be due to not publicizing some of the events soon enough, because of difficulties in finalising arrangements. In part this result may also be a reflection of the challenging circumstances faced by many families which is forcing them to be very careful in the way they prioritise expenditure.

Hopefully the economic climate in 2024 will be easier as inflation recedes and incomes rise. Also, promotion of the

Our Chairman speaks, continued

2024 program of events should be better because much of it is already finalised. Details of this 2024 program can be found in our leaflet 'Visitor Information & Timetable 2024', which will be released in November.

There is one event in 2024 that is particularly worth noting. On Saturday 6th April the Lord Mayor of Leeds will formally re-open after refurbishment 'Little Moor Park' - the name given to the small park to the east of Moor Road Station. The Railway has been closely involved with this project because it benefits both the local community and the Railway by providing an attractive picnic space. The refurbishment includes new tables and benches; one of which was designed by University Technical College Leeds and features a cut out of 'Brookes No. 1' and train.

Also, new signage has been provided which tells the story of life, leisure and work in South Leeds 50 to 100 years ago. The text for these signs was written by Ian Smith, who also sourced many of the illustrations used in the signage. By design the reopening of 'Little Moor Park' coincides with our Community Day, when South Leeds community groups such as local history societies and social clubs are invited to Moor Road to promote themselves. After re-opening the Park, the Lord Mayor of Leeds plus other distinguished guests will attend Community Day, which will help boost this event and generate valuable publicity for the Railway. The combination of the refurbishment of 'Little Moor Park' with the support of the Railway and Community Day exemplifies the work the Railway does to be a valued part of the local community, which ultimately helps the Railway maintain its informal "license to operate".

All of what has been achieved in 2023 could not have been done without the tireless labour of our volunteers. Time and time again they have gone 'above and beyond' to ensure that our visitors have the very best possible impression of our Railway and of its staff. For an all-volunteer organisation we achieve a very great deal. Many of our visitors are amazed to learn that the Middleton Railway is run entirely by volunteers. It is a truism, but one worth repeating; volunteers are the life blood of the Middleton Railway. Without their efforts there would be nothing and their reward is what we see about us when we walk into Moor Road.

Recruiting new volunteers is a vital activity for the Railway, but even more important is retaining those who have signed on. If they are left hanging about looking for something to do when they first come to the Railway, they will soon find better ways of spending their time. This year the Railway has recruited a number of new volunteers interested in becoming train crew, so John Linkins, our Volunteer Manager, is arranging a program of crew training through the closed season. This means that existing volunteers have more opportunities to pass through the training process and new volunteers can quickly become involved with it so that their engagement is retained and built up, making it more likely that they will stay with the Railway.

Some new volunteers have expressed an interest in track work, and so Mark Calvert, our Civil Engineer, is looking at starting some training sessions in the New Year to maintain their interest. More new volunteers fully engaged with the Railway will reduce the pressure on existing volunteers and make their time on the Railway less stressful and more enjoyable, which is a win for all.

Our Chairman speaks, continued

Having said that, new volunteers are still required in all departments, and not just these. If any reader is interested in helping in a customer facing role in the Café, working behind the scenes in the Museum, looking after vintage diesel prime movers or in any of the myriad of other tasks required to keep the Railway running, then please come along and sign up! The more volunteers we have, the more we can do and the greater the likelihood that the Middleton Railway will run on into its fourth century.

Wishing you all a very happy Festive Season and the best possible New Year.

Charles W Milner, Chairman

Jean Collinson

The July issue of the Old Run included an obituary of Jean, which ended by saying “Unfortunately, despite the role of a guard being a fairly public one, we have been unable to find any photographs of her on duty, and so this brief account is as much as we can give by way of tribute.” Not long after this was published, an email arrived from Ian Dobson, containing the picture below, and the message “I attach the best I can do of a photo of Jean Collinson. It's on the VIP charter in 2010 for the 50th anniversary. I was guard and conversing with Jean in the wagon! I was moving the tail lamp at the time.”. In case it is not clear, Jean is the lady in the white cardigan who is leaning over the side of the wagon.



King Charles III Coronation

As some readers may have seen, we ran services over the Coronation bank holiday weekend. The decision was taken to only run on the Sunday and Monday, so as to give volunteers an opportunity to watch and celebrate the coronation on the Saturday. Since 1758, when the railway first opened, there have been nine coronations and this was the first one since the line was preserved in 1960.

Following a discussion, it was decided that I should make a special headboard to commemorate the weekend. Having previously made a couple of headboards including the 'MRT Youth Team' headboard (mentioned in Old Run Issue 258) I was quickly able to put together a CAD design. The design draws inspiration from the 1930's LNER headboard worn on 'The Coronation' express services between London and Edinburgh. Once the design was complete I laser cut it from 6mm hardwood MDF. With the design cut I painted it in coronation red with silver lettering.

Although it is not noticeable from a distance, the crown on the top is accurately designed and painted to the real St Edwards crown used in the coronation. I was pleased to see the headboard out over the weekend being worn by 1310. Having been built in 1891, this was 1310's fifth coronation. Following its weekend of use, the headboard has been put on display in the Engine House on the headboard wall. I wonder what loco will be hauling services at the next coronation...

Geordie Brown



Left: NER 1310 in the platform on the Monday of the Coronation weekend.

© Geordie Brown, 2023

Right: The special Coronation headboard

© Geordie Brown, 2023



The Launch of 385

The obituary for Alan Bowman, which appeared in the previous issue, explained that a small group of us who had known Bill Hampson had journeyed up to Newcastle for his funeral, only to find out then that Alan had also died earlier that year, meaning that the Steam Power Trust 65 (SPT) had lost two of its five trustees in a matter of a couple of months. At the funeral we were also informed that a ceremony would be arranged at the Tanfield Railway to commemorate Bill's life and scatter his ashes, and so at the beginning of September some of us again journeyed north to take part in this event. Not long before this, however, our attention had been drawn to the archive photograph below, and so we took a copy of it with us, in the expectation that it might be of interest to others at this celebration of Bill's life and work.



The occasion of this photograph had been the formal launch into service of the Danish locomotive, class Hs Nr 385, on Sunday 20th April 1986, following an extensive overhaul and then some running-in during 1985. The photograph was taken on the platform at Moor Road, with the locomotive as background. It shows John Bushell (in the orange overalls) interviewing Joe Lee (who was then the Middleton Railway's chairman), watched on the left by Bill Hampson (resplendent in what we believe was a Danish State Railways uniform) and on the right by Ken Cockerill (then the chairman of SPT). Since all four of these people have now passed on, it is appropriate to give a bit more detail of their links with the event.

John Bushell had been one of the early members of the Middleton Railway Trust, and by the mid-1960s was its membership secretary. As such he was also

The Launch of 385, continued

involved in the railway's publicity work, and particularly in publicising its historical connections: indeed, he had written a booklet "John Blenkinsop of Middleton" which the railway had published. In the course of this work he had developed sufficiently good links with Radio Leeds that they were happy to lend him the tape recorder that he is using in the picture, in order to conduct interviews on occasions such as this. Presumably he interviewed the others as well, but the photograph shows him talking to Joe, who by this time had been chairman for almost 16 years, having taken over from Fred Youell in May 1970.

Bill Hampson was the member of SPT who had most connections with Scandinavian railways in general and Danish railways in particular. He had not actually been one of the original trustees, but was brought in as part of a significant turnover during the first few years of its existence, and so was well established within a couple of years. We do not know to what extent SPT's project to acquire Nr 385 was his brainchild, but we do know that he had managed the project. Indeed, we have in our archives a fairly substantial file of the correspondence relating to the negotiations with the Danish State Railways and various government departments (in both Denmark and the UK) over the acquisition and import of the locomotive. Interestingly, as formal business letters these are all typed, whereas letters from Bill were normally hand written: we suspect that his employers probably contributed secretarial assistance as an aspect of "volunteer" labour to the project.

By contrast, Ken Cockerill had been one of the original trustees of SPT, and indeed may well have been the driving force behind its creation. What was interesting about showing this photograph to people at Tanfield was that it provoked far more recollections of Ken than it did of Bill. Evidently Ken had been a leading light in the North East Area branch of the Railway Correspondence and Travel Society (RCTS), and some of those attending the celebration at Tanfield had strong memories of his contributions to it. Indeed, the impression that was given was that the initial trustees of SPT had probably been recruited largely from the membership of this RCTS branch.

A particular contribution that was mentioned was that Ken had taken the lead in arranging a special train, the "Stainmore Limited", which the RCTS ran on 20th January 1962 as the last train before closure along the line from Barnard Castle to Tebay over Stainmore Summit. (Aside: this line is featured in the 1955 British Transport Film "Snowdrift at Bleath Gill", which is available on Youtube, and is well worth watching to gain an impression of what railway operation could be like in those days). Apparently, Ken's involvement in organising this train had extended not only to riding on one of the two locomotives that hauled it (standard class 3 2-6-0 77003 and standard class 4 2-6-0 76049), but to driving that locomotive for a significant part of the journey: something which it is hard to imagine being allowed today!

So, taking this photograph to this celebration of Bill's life certainly achieved the aim of prompting reminiscences, even if they were not particularly of Bill!

Tony Cowling

Shop Notes

All seems well in the shop. The visitors buy their tickets, their teas and coffees, toys, souvenirs and so on. As with waterfowl, however, outward appearances deceive, for much is going on unseen; Christmas is not far off and readers will be aware of the important dates for preparatory activities, like November 2nd and 16th. (Considerations of security prohibit me from saying more!)

Reverting to the analogy of the waterfowl, one piece of furious submarine paddling which passes unnoticed for the most part is the preparation of the tickets for the bookings for the Santa trains. Bookings arrive via the special booking website, and for each party the necessary details are printed out onto a sheet of paper, setting out the ages and genders of the youngsters, the numbers of adults and the date and time of the train.

Each booking then has to be turned into a bundle of tickets and vouchers, and each bundle has to be put into the box that relates to the train selected, in its alphabetically correct location. (And yes, this does mean that there are 64 such boxes: some are shown in the picture below.) There are typically well over a hundred parties (ie bookings) per day of running, making some 1,000 possible bookings and affording plenty of scope for errors. Mistakes however are not permitted!

Further snippets include the imminent arrival of Middleton Railway calendars and the collection, organised by Sue Edwards, of prizes for the tombola that we will be running during the working days of the Santa season.

Readers will recall previous reports in the Old Run of the sheer scale of the staffing (or crewing) of the Santa season, So, if you come to the railway as a volunteer, and someone with a clipboard comes in your direction, you'll know what is going on!

Richard Stead



Some of the boxes containing the Santa booking vouchers

© Tony Cowling, 2023

How To Take A Good Photo Of A Steam Loco

In this article, I will explore different techniques which can improve your photos. I do not wish to undermine or criticize any other techniques people have come up with. This article is more intended to share what works for me, what doesn't, and offer some other tips and tricks.

Weather conditions. This is a topic which comes down to personal opinion. If you are wanting a moody but rich coloured photo, a rainy day is perfect. However, if you want a bright and vivid photo, then a sunny summer's day is best. Another aspect to bear in mind, is brightness. If you are taking your photo in the evening as it's beginning to get dark, your photo may look grainy. To reduce this, use a slower shutter speed and increase the ISO. If it is too bright, something which often happens on a hot day in summer, the colours may become slightly washed out or your subject (in this case a steam train) may be under exposed. To reduce this, use a faster shutter speed, and a lower ISO.



1310 running around the train at Moor Road. The late afternoon October sun casts a pleasing light on the loco.

© Soheil Flynn, 2021

Angle. In order to take a great photo, you need a decent angle. Now, what angle is actually the best? There is no right answer, it just depends on what you want to get out of your photo.

Personally, I find that positioning the camera near the ground and looking onto the loco from a forty five degree angle (relative to the locos front) gives a great effect. You have to be careful with this technique though. If you are too close to the loco, you will not see very much other than the frames. (Good for judging how good the crews are at cleaning the loco I guess...). Putting some space between you and the loco will allow for more to be seen. Walk backwards until you find a position that looks good, with the loco clearly visible (but do look where you are walking!). Walking too far back will result in the loco being lost in the scenery around - this is not by any means a bad thing, but just bear it in mind.

Zoom. Zooming into your subject can give a very pleasing effect, as it creates angles which you can't otherwise achieve. For example, say you are

How To Take A Good Photo Of A Steam Loco, cont'd

standing on the Old Run Road overbridge. You could zoom into No. 6 coming around the GN curve, which gives a great angle as you are looking at the loco from above, and it looks as though you're quite close to it. This is something you would have to use a drone for if not zooming in.

If you wish to use this zooming technique, I would recommend using a DSLR camera in order to minimize distortion. You can still use this technique with a smartphone, but try to limit how far you zoom in.

The Scene. When taking a photo of a steam loco, you should consider the scenery around. Using the following tips will improve your photos.

- Try to position yourself around lots of greenery.
- Don't make the loco the only thing in your photo.
- Allow for lots of detail in the background, e.g. Foliage, Leeds city centre (best viewed from the Old Run Road over bridge), the tunnel entrance, other locos, workshop entrances, etc.
- Consider whether a sunset or sunrise in the background of your photo would look good.



HE 2387 is seen running around the train at Park Halt. The greenery around provides a nice backdrop.

© Soheil Flynn, 2023

Steam. To make your photos more interesting, try taking a photo of the loco with lots of steam around: this makes the photo more atmospheric. A good scenario for this is as a loco is exiting the M621 tunnel, as lots of smoke and steam surround the loco. Another good scenario is when the safety valves are blowing off. This large amount of steam gives the sense of power and can look very pleasing.

If you are looking for lots of steam, wait for a cold day. Due to the evaporation rate of water being reduced as a result of the cooler temperature, more steam will surround the loco.

How To Take A Good Photo Of A Steam Loco, cont'd



HE 2387 at Moor Road on a biting cold day in December 2022, hence all the steam.

© Soheil Flynn, 2022

Camera stuff. Welcome to the nerdy bit! You may think that for a high quality photo you need a super expensive DSLR camera – however, this is not true. In fact, it is often more convenient to use a mobile phone.

Again, you may think you need a top of the range phone in order to get good sharpness and quality in your photos, but again, this is far from the truth. While the more expensive phones do have better cameras, you can still get very good photos with cheaper phones.

In order to get the best out of your mobile phone's camera, try employing the following techniques. Firstly, avoid using zoom as it distorts the photo. This is not a problem on DSLR cameras as these use an optical zoom where the glass elements inside move to create different relative focal lengths. The zoom on a mobile phone is a digital one, where the phone essentially crops the picture without any physical magnification, and so you lose photo quality.

Secondly, set your phone to capture in the highest possible resolution. If you're not sure how to do this, you will have to read the manual (and perhaps look for it on Google first), as almost every smartphone does it differently.

Thirdly, ensure that your lens is clean! This is a massive killer of photos, especially ones taken with a mobile phone. How many times have you pulled your phone out of your pocket and rubbed your fingers on the camera? Probably many. This leaves fingerprints, dust and other debris on the lens, which blurs the photo.

Hopefully these tips will be helpful to some people. I do not claim to be an expert in this field, more an enthusiast. Any feedback is more than welcome!

Soheil Flynn

The Model Railway Exhibition



A particular feature of our model railway exhibition, on the weekend of 8th and 9th July, was a layout based on the Abbey Light Railway, shown in these two pictures

This was a privately owned 2' gauge line which had been built in 1976, and ran from a site in Bridge Road, Kirkstall into the grounds of Kirkstall Abbey. Sadly the owner, Peter Lowe, died in October 2012, and the line closed. Much of the rolling stock and other assets were sold initially to the Welsh Highland Heritage Railway, but the locomotives in particular are now spread around various heritage railways.



The Model Railway Exhibition



Picture © Ian Dobson, 2023

Another large layout was the one shown above, based on the Ribbleshead Viaduct, with MSC 67 behind it to provide a size comparison. This layout is to T gauge, which has a track gauge of 3mm. This corresponds to a scale that is usually quoted as either 1:450 or 1:480, which is about one sixth the size of 00.

The MRT Youth Team

As usual the youth team have had an extremely busy few months since my last writing. Several members of the team were able to get involved more than usual thanks to the summer school holidays. Along with members continuing with their operational roles, several days were held for members to get involved in the workshop and completing other tasks.

The 22nd July saw Colm, new member Peter and myself giving 1310 a thorough clean and polish in preparation for the following day, when it would be steamed for one final time before the expiration of its boiler ticket. Despite the cramped



working conditions that 1310 provides, many (including myself) have become fond of it, so we thought it was only right to say farewell with it looking spiffing. Over the course of the day we cleaned between the frames, the frames and wheels, the paintwork, the cab and the abundance of brass that 1310 offers. The day ended with chalking a farewell message on the smokebox to commemorate the 12 years of service it had given. It was nice to hear from the crew the next day who said that there had been much praise from the public about how good it was looking. Farewell, for now, 1310!

Geordie Brown (left) and Peter Hirst (right), after preparing 1310 for its last day in service.

© Colm Connolly-Taylor, 2023

planning by John Linkins, an official Youth Team day took place, which saw as many roles as possible be run by members of the team. As mentioned in the April issue of the Old Run, the Youth Team were shortlisted for a prestigious Heritage Railway Association (HRA) award under the category of 'Rising Stars'. Although we weren't lucky enough to win the award, the HRA asked if they could visit us to present us with a runners-up certificate, and a youth team day seemed the perfect opportunity. The event also allowed families to get to see what their children get up to at the railway.

Sunday 6th August saw the biggest event in the Youth Team's history take place. Following many hours of

The MRT Youth Team, continued

Following the usual morning locomotive preparation and shunting, all 14 members of the team who were present met with their families in the conference room where a short presentation by team leader John Linkins took place. John spoke about the importance and benefits of getting young people involved and how skills would die out if they weren't passed on. This presentation was then followed by HRA director Noel Hartley, who gave a short talk about how he had started as a young volunteer on the Worth Valley railway and the benefits young people get from being able to volunteer on heritage railways. Noel finished the presentation by handing over the runner's-up certificate to the team.

Everyone boarded the 11:10 service crewed by John, Joel and myself on the footplate and Alex and Soheil on the train. A photo opportunity was to be had at Park Halt and upon returning to Moor Road. After this, various activities allowed families and members of the public to speak to members of the team and see what happens behind the scenes. These activities included shed tours by Ian Smith, Charles Milner and myself; an opportunity to talk to a team made up of Joe, Colm, Ned and Jack who were working on the ballast hopper wagon on the apron; and Oliver who was displaying his model railway on the mezzanine. Other members of the team helped out around the event and in the shop. A buffet lunch was provided for families and their tickets allowed them unlimited free travel throughout the rest of the day.

The event was deemed a success and we were pleased to find several articles were published about the event including in the September edition of Heritage Railway Magazine. There is hope that this event may return in the future as a way of demonstrating what the youth team get up to. Following youth team day the team headboard has had several outings due to coincidental full youth team crews.

Over August and September several days saw small groups of the team working on various tasks including cleaning up the paintwork on the ballast hopper wagon, which had become heavily worn since its last repaint. With 1310 now withdrawn several members of the team have helped to prepare it and clean it ready to be put on display in the Engine House, to where it has since moved.

On Saturday 7th September, under the leadership of Kenny and Colm, several members worked to deep clean No.6 which was starting to look a little dull and dirty. All of the paintwork and brass work, including between the frames, was thoroughly cleaned and polished leaving it gleaming.

After the busy summer period thoughts are now turning to the winter period and Santa specials. Plans are currently being made, looking at various projects in which the team can get involved over this period and into the next year. I look forward to updating everyone on what the youth team have been up to once again in the next issue.

Geordie Brown

The Youth Team Day



Above: Noel Hartley from HRA presenting the certificate to Joel Leverton for the Youth Team.

Below: The Headboard.



The Youth Team Day



*Above: The team posing with the locomotive.
On the footplate (L to R):
John Linkins, Geordie Brown (seated), Joel Leverton;
standing: Soheil Flynn, Alex Smith, Peter Hirst, Kenny Burgess-Hall, Joseph Brewer;
kneeling: Jack Johnston, Ailsa Sayles, Ellen Sayles.
Missing: Oliver Brookes, Colm Connolly-Taylor*

Right: Parents photographing the young volunteers



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MOOR ROAD HAPPENINGS

As I write these we are in the last week of October and the end of the year's timetabled operations, with just the December Santa specials to see through before we can have a bit of a rest from the early morning starts. Operationally, it has been a relatively trouble free season although we have had to cancel services on a couple of days due to lack of a full crew of driver, fireman and guard. Until a couple of years ago this was an unheard of event and is symptomatic of our ageing volunteer workforce..

LOCO NOTES

No. 6

Mention was made in the last Old Run that problems were being experienced with the loco setting up an oscillating motion when hauling trains up to Middleton Park and that some timber packings were being made to effectively extend the buffers out to 21" length. These have now been made and fitted. However, although reducing the oscillation considerably this has not eliminated the problem entirely and, if drivers aren't careful, we still get some oscillation. The valve settings don't seem too bad but we will have to find time to check these over the winter shutdown.

The loco has started to chew up the piston rod gland packings and these have had to be cleaned out and re-packed. It is thought that the cause is the use of an incorrect grade of packing which has somehow been fitted, although where it has come from is not known. The glands were packed quite a long time ago during the loco's very protracted overhaul.

The steam brake gland has also been a problem and has had to be re-packed. This time it is not thought to be the packing material but a lack of lubrication causing the problem. This is in part due to the design of the lubricator pot, which only has a small orifice in it. Drivers are filling the lubricator at the start of the day before steam is raised and everything is cold. The pot is quite small and quickly fills as the thick oil doesn't drain into the brake pipe through the small orifice, and drivers probably assume that sufficient oil has been added when this isn't the case. A new lubricator has now been made with a larger orifice, and will be fitted in the next few days.

We are still having problems with the reverser sticking when in mid gear, almost certainly due to a build-up of steam in the steam chests exerting excessive pressure on the valves and holding them tight against the valve faces. As a stop-gap, instructions have gone out to leave the loco in either forward or back gear with the brake applied and drain cocks open when stationary. Although not the best solution, this has eliminated the problem.

For reasons that we have been unable to explain, after running without problem

Moor Road Happenings, continued

for over twelve months, the left hand leading sandpipe came into contact with the rails and broke off at the casting at the bottom of the sandbox. It should be repairable but we won't know for certain until the casting is removed from the sandbox.

The loco has been in regular service over the last few weeks and has been popular with the crews. It steams well on a very thin fire and is quite capable of doing anything we want to do with only 100 lbf pressure in the boiler. It has now reached the point where a 'B' exam is due so it has been stopped for this and various other minor jobs to be undertaken. These include the fitting of the modified steam brake lubricator, modifications to the left hand injector overflow pipe and repairs to the sandpipe. It should be back in service for the start of the Santa season.

1210 SIR BERKELEY

Sir Berkeley has seen occasional use over the summer, generally running without problem. However, the right hand leading axlebox continues to run quite warm and there are tell-tale signs of brass in the oil draining from the axlebox. This axlebox suffered a hot box when on loan to the Bluebell Railway many years ago and has always run warm ever since. It is intended to lift the loco over the winter period and investigate the problem further with the objective of finding a permanent solution, which will probably involve white-metalling the bearing.

Working at height is currently a hot topic within the heritage railway movement following a series of falls resulting in injury. One aspect of working at height is filling the loco's water tank and the need to climb up onto it to do so. Whilst most locos have steps on the tank, Sir B. does not have this luxury and the Vintage Carriages Trust (the loco's owner) has agreed to the fitment to steps on either side of the tank. These will be similar to those on sister loco Matthew Murray but will be bolted to the tank rather than welded. The loco has recently been drained and taken into the workshops for this work to be done. The opportunity will also be taken to clean out the tanks as there is quite a bit of scale in them.

It is hoped that this work will be completed by the end of the year as it has become a tradition to use Sir B on New Year's Day when it is available.

No.1310 (NER H)

This loco was last used on the 23rd of July after which it was taken out of service following the expiry of its boiler certificate. The boiler has since been washed out and the firebox and smokebox thoroughly swept clean, along with the coal

Moor Road Happenings, continued

bunker. It has also been given a good clean and polish and has now taken up residence in the Engine House. At the moment there are no further plans for this locomotive.

No. 11

Still nothing positive to report.

SENTINEL No.54

The leaking regulator gland mentioned in the last Old Run has been dismantled and the valve ground in. A subsequent steam test showed that this work had been successful and the valve seals quite well.

The leak in the vacuum brake system took a bit more solving. The loco was coupled up to a diesel locomotive which was used to create the required vacuum. After carefully going round the pipework the leak was traced to the pipe up to the vacuum brake valve where it couples into the main vacuum train pipe. This is located in an almost inaccessible place between the boiler and the frames and it took some effort to remove the pipe. Examination showed that the screw thread was not the best and it was decided to replace the length of pipe. Assembly took almost as long as the disassembly and it was disappointing to find that the leak still existed. After some headscratching as to what to do, short of a major re-design of the vacuum pipework it was decided to wrap the offending joint in Denso tape. This is a cold-applied anti-corrosion and sealing tape, based on a synthetic fabric, impregnated and coated with a neutral petrolatum compound. It is easy to apply even in the tight space we were working in and can be moulded by hand to almost any shape. Once applied the results were immediate and the leak was totally eliminated. Hopefully, this will be a permanent solution and will last until the loco's next overhaul. What we don't know is how the proximity of the hot boiler will affect the tape over time. Having cured the leak, it became obvious that the relief valve was now set too high and this was adjusted to give the required 21" of vacuum.

A final problem to be solved was that the fire just wasn't getting hot enough. We had a similar problem many years ago and it was finally traced to the fact that there were air leaks where the boiler top plate fitted onto the boiler. Back then it was overcome by sealing the joints with asbestos string but such methods are no longer allowed and, when the loco was re-assembled after its overhaul, fire cement had been used to seal the joints. When the boiler cover plate was removed it was found that the fire cement had broken up allowing air to be sucked in and thus reducing the draw on the fire. It was decided to try a high temperature

Moor Road Happenings, continued

silicone sealant to do the job and this was liberally applied around the joints in the top plate. A further possible source of air leakage is where the firing chute sits in the top plate and this was attended to by wrapping a spiral of ceramic rope around the top of the chute and gluing this in place with the silicon sealant.

Having done all the above it was time to try the loco on a test train. This was done on an ordinary service day on the 27th August during the lunch break hauling all three coaches, something the loco had not done before. The loco was fairly transformed and, although there was some drop off of boiler pressure on the climb to Middleton Park, it was not sufficient to cause a halt. Armed with this success it was decided to try the loco on a service train. Again the loco performed well enough for everyone to be satisfied with the results. The loco was subsequently used without problem at the September gala (except when the crew almost let the fire go out, but we won't mention that!) and has been used on a midweek schoolday. The next task to undertake will be training crews in the operation of the loco, as it is sufficiently different from a conventional steam loco to warrant a separate grade of competence.

HE 2387 BROOKES No.1

Brookes No.1 has been the main loco used for much of the season but has been rested for much of September and October. It had an injector failure during August which was traced to a failed joint packing between the injector and the boiler, allowing boiler water to get into the injector and prevent it from working. This has happened on several occasions previously and is really a symptom of the poor quality workmanship in the boiler by the manufacturers (Winson Engineering).

The boiler drain valve has been dripping quite badly for a while now. Whilst not critical it does mean that a boiler adequately filled at the end of the day always needs topping up the next time it is used. The valve has now been removed and ground in. This seems to have cured the problem but the locomotive has yet to be tried in service. This will have happened by the time that you read these notes as it is rostered for the last day of the season on the 29th October. The loco is planned to be available for the Santa Season and should share these duties with HL 3860.

HC 1544 SLOUGH ESTATES No.3

The axleboxes are now finished and ready for fitting to the axles. These few words don't really do justice to the many hours of hard and patient work put in by those involved in doing all the work and it is worth re-capping on what has been done. Things have been measured, checked, altered, measured and checked

Moor Road Happenings, continued

again. With our limited facilities it is not a five minute job to do any of this. The first job was to grind all the hornguides so that each was parallel with its mating pair. Then, their true positions had to be measured as these things do not wear equally and each one is different. The whole process is made harder as we do not have any drawings to refer to and had to create our own datum reference point. Meanwhile, each axlebox was having 6 mm machined off each face to allow for the fitting of removable slippers.

Each axlebox then had to have twenty holes drilled and tapped in them for fitting the slippers which also had to have matching holes drilled in them. All this required a jig to be made to ensure accuracy. Once this was done and the slippers fitted to the axleboxes we then had to determine just where the centre of the axle sat as years of wear and maintenance meant the true axle centre was not in the axlebox centre which required a further jig to be produced. Each slipper face was then carefully measured relative to this true centreline and the resulting dimensions recorded. The theoretical centrelines of the axles then had to be marked on the frames and the relationship of all the hornguides to those centrelines measured and recorded.

Once all this was done we could work out how much shimming needed placing between the axlebox and the slipper plate to both take up wear and ensure that the axle would sit in the correct place. These shims then had to be made and fitted to the axleboxes. Each axlebox then had to be trial fitted in the horns and the axlebox centrelines checked against those marked on the frames to make sure our calculations and fitting up was correct. All that has taken months of work for the small team doing the job.

Work has also continued on the needle-gunning and cleaning of the frames. The outside has been done and the area has had a coat of grey primer undercoat and a coat of gloss black. The inside of the frames has also been receiving attention with some 75% of it now having been cleaned and prepared for painting with only the area under the cab still to do. The wheels have continued to be cleaned, a slow boring process trying to remove the build-up of tarry deposit on the insides and between the spokes. This mainly has to be done by hand as suitable removal tools just won't fit in the space available. This has now been done and the backs of the wheels have received their first coats of paint.

Attention is currently focussed on the eccentric straps which have been cleaned up and primed. They have also been checked for wear. This is done by placing strips of lead wire in the recess and then assembling the two half straps onto the eccentrics. This has the effect of compressing the soft lead and by measuring its thickness you can determine how much wear there is in the eccentric strap and machine the brass spacers accordingly to take up that wear. Some slight wear has been determined and this is being attended to.

Moor Road Happenings, continued

A start has also been made on cleaning down the coupling rods ready for checking and painting.

Unfortunately there has been little progress with the frame stretcher. We have been unsuccessful in obtaining drawings from the archive at Statfold Barn and have had to resort to the original plan of measuring everything up and creating new drawings. Most of the required measurements have been obtained and a start has been made on the drawings. Unfortunately this has shown that many of the holes are not logically spaced and it is difficult to work out what the dimensions should be. The original holes would have been drilled to a template and, as long as everything matched up, it was of little importance to get the hole drilling exactly right.

New brake blocks are required for this loco and a suitable pattern is currently being made. Finally, the paint for the loco has been obtained from T & R Williamson, our usual supplier for good quality coach paint. The colours chosen are Light Brunswick Green and Signal Red, which are the same colours as the loco was previously painted. This will probably be the last paint we get from Williamsons as the company has been taken over by others and, after nearly 250 years, the Ripon factory is being closed down.

Fowler 42200033 HARRY

Available for service. It has benefitted from a good clean.

Peckett 5003 AUSTIN'S No.1

Available for service but there have been reports of it stalling when a gear is selected prior to starting away, which will have to be investigated. The air receivers have had a recent examination by the boiler inspector.

D2999

After investigation and cleaning of various contacts the starting problem appears to have been resolved. However, it then became apparent that the batteries were not being recharged. Investigation of this problem found that a fuse in the charging circuit had blown. It is a traditional fuse with fuse wire. We have decided to replace this with a more modern cartridge fuse which is currently on order. Otherwise serviceable if the batteries are kept charged.

HE 6981

After quite a while some work has been ongoing with a view to getting the locomotive into service. The holes for the window frames have now all been drilled ready for final fitting. They now need removing so that a sealing strip can

Moor Road Happenings, continued

be fitted, followed by final fitting. A large hole in the running plate that was previously associated with the exhaust gas conditioner box has been filled in and welded up.

We think that we have managed to locate a suitable exhaust silencer from a locomotive that is being scrapped.

D577 MARY

Currently on display in the Engine House but is available for use if required.

D631 CARROLL

Was used over the recent gala, but is currently on display in the Engine House. Available for use if required.

L.M.S. 7051

Currently on display in the Engine House. The air receivers were recently examined by the boiler inspector. Available for use if required.

D1373 MD&HB No.45

In service and is the usual first choice for shunting and the passenger service. This is more due to the fact that the serviceable locos are usually kept in a line in the compound, and D1373 is invariably the front loco.

All other locos are stored, either on display in the Engine House or awaiting overhaul.

CARRIAGE & WAGON NOTES

The three coaches have continued in service, as required. Periodic exams were carried out during September with no faults found.

PMV 2223

Progress on the conversion of this PMV into a coach has continued to progress albeit at a much slower pace over the summer, due to both holidays and the need to crew trains. However, it is pleasing to report that things have now picked up again and there is good progress to report. All the internal panelling has now been fitted and just requires varnishing to complete this aspect of the work. Our woodworking team have now turned their attention to making and fitting the various

Moor Road Happenings, continued

window frames and these are well on their way to completion. Once this is done the glass can be ordered and fitted. Each pane of glass has to be carefully measured as they are all slightly different. It is because everything has to be fitted around the original PMV steel body framework and the positions of these vary depending on their original purpose.

The roof covering has now been completed with the fitting of the end trim and the canvas has received its first coat of paint.

The wiring for the lights and inter-coach connections is being progressed. We are going to revert to the standard British Railways coach connectors as these are better suited to the job of inter-coach connections and will pull apart if they are not disconnected when being uncoupled. The current connectors are based on road transport practice and are not designed to do this, so would be ripped apart if not physically disconnected when uncoupling. We still need to identify a suitable source of 24 volt LED circular bulkhead light fittings.

AROUND AND ABOUT PRESSURE WASHER

A very recent acquisition is that of a hot water high pressure cleaner. This replaces our previous one which had failed a while ago. The new machine is a Karcher HDS 6/12C. It has already been put to good use cleaning the coupling rods for HC 1544.

FLY PRESS

We were recently offered a fly press free of charge, including transport, and gratefully accepted this offer as we could make good use of it, even if only occasionally. The press was delivered in early October but its stand is yet to arrive. Amazingly, having never been offered one before, shortly after accepting this we were offered another one. As we had already agreed to the first one this offer was politely declined.

The press will unfortunately have to live outside for the foreseeable future, as we have no space in the workshops to accommodate it.

RUNNING SHED

Still no progress with the new smoke vents, which we really must get done before winter.

Moor Road Happenings, continued

WATER TREATMENT

We recently had a visit from Nigel Simms, the representative of Rodol who supply our water treatment. He carried out various tests on our locos and reported that the amount of treatment found in the boiler was below that recommended. His advice was that we should double our current dosage from 500ml per day to 1 litre/day. i.e. four bottles of treatment for a normal day's service. In particular, he suggested that, when we fill the tanks at the end of the day, we should be adding one of those bottles as the water left in the tank was weak on treatment.

VEHICLE LIFTING JACKS

These are now on the schedule of lifting equipment for inspection but this has yet to be arranged.

SENTINEL LATHE

This has not been used for several years and has been declared surplus to requirements. It has now been disconnected prior to it being removed and arrangements are being made for this to happen. It will be an interesting task as, in order to do this, the surface grinder will need moving out of the way, along with various other pieces of kit. However, apart from the surface grinder, everything else should be easily moveable.

PERMAQUIP BALLAST PACKER SHELTER

The steelwork for the Permaquip ballast packer is now all complete and just awaits the foundations before it can be assembled. The holes for these have been dug and the shuttering installed. All we need are for a couple of people to come along and mix and pour the concrete.

ROBINSON & BIRDSSELL

We have recently heard the news that Robinson & Birdsell (forever known as Robbies to all at Middleton) have been bought out by Dem-Master Holdings, a Scottish based company with interests in demolition. We have always known Robbies as a scrap metal recycling organisation, but they have been involved with demolition for many years. A consequence of this is that Robbies will be concentrating on the demolition business and will no longer be involved with recycling of scrap metal, and their Moor Road yard has been closed.

Robinson and Birdsell started up over 180 years ago, so they are not quite as

Moor Road Happenings, continued

old as our Railway. However, they have had a long association with the Railway, being connected to it in 1933. When the Preservation Society first started back in 1960, Robbies was the Railway's first freight customer and continued to be so until the mid-1980's. It was the death of wagon load freight traffic that finally killed this off. They have always been a good friend of the Railway and have helped us on many occasions in the past. Our thanks must go out to David Barraclough for this help in recent times and Harry Catchpole in times gone by.

To replace Robbies, David has organised our scrap metal to be taken by Onyx Recycling who, coincidentally, have their depot at the Climax works on Garnet Road. This works was once part of the premises of John King, who in times past were another Railway customer and literally next door on one side to what was once Robbies main scrap yard. Also, as described in Old Run 257, on the other side they overlooked Clayton's Dartmouth Yard, which housed the Railway's headquarters until the yard closed in 1983. Alas, we no longer have a rail connection to these sites.

Steve Roberts



Robbies' yard in the very early 1960s, with HE 1697 shunting a 16-ton mineral wagon up to the loading dock, which was a bit further along in the yard. There the wagon would be loaded with steel turnings, to start their journey to Sheffield to be recycled.

Photo: MRT Collection

Chains and Trains

Or, did George Stephenson invent the bicycle-chain?

To the cyclist, chains are a matter of some importance. Chains of similar design are, intriguingly, to be seen in our display hall (often in pairs). The Sentinel has two, as does Sweet Pea. Another is to be seen on the colliery rack locomotive in the north-eastern corner of the hall (and it has another one out of sight on the other side). On school visits, I often challenge youngsters to find "the world's biggest bike-chain". The levity of this approach turned into serious enquiry as I perused J B Snell's "Railways: Mechanical Engineering" (Arrow Books, 1973).



Rack loco BEM 402 in the display hall. The chain which drives the further of the two axles can be seen fitting round the sprocket on the end of the axle.

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Here I read that George Stephenson used this type of chain, together with sprockets of course, to connect the wheels and so share the drive on *The Wellington* (built, seemingly, in 1815). Stephenson also used chains and sprockets on the locos that he built for the Kilmarnock and Troon line in 1817. Since chains stretch, he abandoned this idea in favour of rigid connecting-rods, as used on most of our locomotives.

(On bikes of course, the stretching can be absorbed by the spring-tensioned chain-cage). Other chains from the same period, such as anchor-chains and jewellery, are quite different, being simple loops of metal. This led to the question at the head of this article: did George Stephenson invent the bicycle-chain?

Enquiries of Wikipedia quickly scotched this notion. First, the bush roller chain (for so it is termed) was patented as a bicycle chain by Mr Hans Renold of Manchester in 1880. This appears to be in large measure a derivative of and an improvement on the roller chain that, further delving into Wikipedia revealed, had been patented by one James Fussell IV, the owner of an ironworks at Mells, in Somerset, in 1798. In the eyes of the Patent Office at least, the difference between bush roller chains and simple roller chains was sufficient to warrant the grant of a new patent to Hans Renold. The company that he established, to exploit this patent, still develops and makes chains

Chains and Trains, continued

Fussell's chain was one element of a large and ingenious apparatus which would later be known as a boat lift (like the one at Anderton in Cheshire), and which permitted the raising and lowering of canal-boats from level to level, so saving the expense of constructing a whole series of locks. The canal for which he intended this apparatus was a branch from Frome to Nettlebridge, off the Dorset and Somerset canal, but in the event only part of this branch was built, and none of the main canal. One example of Fussell's boat lift was built, at Barrow Hill, and in 1800 demonstrated its efficacy, but the other five planned boat lifts were not built, because the canal company ran out of money.

Patents are of course only valid within the territory of the issuing state. The foregoing therefore has nothing to say on the true origin of the roller chain. Wikipedia however offers the statement that Leonardo da Vinci did a drawing of such a chain.

Only conclusions of a tentative nature can be drawn. First, perhaps Leonardo was the true inventor. Second, it appears that George Stephenson, rather than inventing the roller chain, used a scaled-down version of Fussell's chain (and sprockets) on some locomotives. Third, Is it too far-fetched to suggest that John Blenkinsop got the idea for the rack-and-pinion from James Fussell's apparatus?

Richard Stead



Kerr Stuart 4421 "Rom River", which visited us for the "90+ Years of the Diesel" event, uses three chains to transmit its drive. This picture shows the one that connects the drive shaft to the front axle and the one that connects the second and third axles; the chain from the first to the second axle is on the other side of the loco. The horizontal rods position the axles, and to make allowances for the chains stretching they each have a screw adjuster.

The September Gala

The September gala was originally planned for the weekend of 16th and 17th, but the availability of crews meant that it had to be reduced to just the Sunday. It featured both steam and diesel locomotives, but in particular the Sentinel (as Steve Roberts explains in the Loco Notes), along with both *Sir Berkeley* and No. 6, as shown in the pictures below.





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The Flying Squadron



For many visitors to our SteamPunk events, the high spot of the day is the owls flying. This one tried walking round the floor of the display hall, before deciding that flying up to perch on Mirvale's handrail gave a better view!

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