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Middleton Railway Trust

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The Restored BROOKES NO 1 on her 'maiden voyage' Congratulations to all!

Introduction

The Old Run No. 236 September 2017

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The Editor welcomes contributions - photographs, articles, news items and letters - relating to the interests of the Trust and the operation of the Railway.

Items for publication, including images, are acceptable in any format and may be sent via CD, post or email.

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Front Cover:

A triumphant picture of Brookes No. 1, newly restored, on her first afternoon of work. Thanks to John Goacher for this magnificent picture, and to all who brought her to this state of perfection.

On the Platform Jenny Cowling

We are generally a very happy organisation; well, there are occasional minor disagreements but these are usually sorted in a reasonably civilised fashion. However, in this edition we are absolutely delighted, and for three very good reasons.

The first is that John Linkins has “tied the knot” with his lovely wife Beth. Unfortunately I did not have enough space in this magazine for any of the gorgeous photographs (yes, even of John!) but hope to bring you some in the next edition.

The second is that Richard Holland, who sadly passed away last September (as reported in the December 2016 Old Run, issue no. 233) left a substantial bequest to the Middleton Railway. We do not know the full sum as yet, but there are quite a lot of noughts involved in the figure. This will be a great help to the railway and will take many hours of cogitation by Council to work out the best way to spend/husband it. If you have any suggestions, please pass them to the Chairman and we will add them to the list. It won't be enough to enable us to reach Middleton Park, so don't get too excited, but it should make a significant difference to some of the work we are currently progressing and may bring forward some jobs that are currently awaiting progress.

And the third is, of course, the successful restoration of **Brookes No. 1**. When put into service for the first time, outside its various steam tests, on Bank Holiday Monday, 31st August, everyone was ecstatic! “It runs just like a sewing machine” was one comment. Coming from a hardened engine driver this comment was a little unusual and certainly unexpected, but regarded as ‘praise indeed’. Whether or not the utterer had ever operated a sewing machine was not known, but perhaps he had serviced a few in his time. Whatever, it was regarded as an excellent job, well done, and a great credit to all the many people who worked on her, for whom we are very grateful.

Editor

Along with other members of our railway I recently attended the funeral service for Mrs Susan Youell who was the spouse of the late Dr 'Fred' Youell the instigator in saving a portion of the Middleton Colliery Railway. Susan Youell was very interested in railways and at one time was the secretary for the group which eventually became the Heritage Railway Association. An obituary will be found on the next pages of this edition of the Old Run.

The above event reminded me that, over the last 50 or so years, there must have been countless men, women, boys and girls who have served our railway as volunteers. Recently I met a gentleman who told me that at one time, in about 1959/60, he and his friend drove the morning goods train and then went to school! Our railway has a long history of volunteering and it is the aim of the members of your council that this situation will continue well into the future. In the early days there were fewer rules, regulations and training. Members gathered together to carry out any work that was necessary to run the train services.

Society's attitudes have changed over the years resulting in many new rules and regulations. We now need to protect our visitors and volunteers from all sorts of danger and harm which had never occurred to us before. Our railway has evolved from a few enthusiasts running the trains into one of the premiere visitor attractions in Leeds. Whilst many volunteers have a wide range of skills we must, these days, be aware that we need to take a professional approach to the selection of people who offer their services to our railway. Therefore we now have systems in place to review the suitability of potential candidates and, where necessary, obtain references.

Recently Mrs Susan Youell expressed

her delight at how our railway was being run and the facilities on offer. She also asked that our volunteers be thanked for progressing the organisation from that set up by her late husband into the present visitor attraction. On her behalf I do this now.

Over the years the organisation of our railway has evolved and the management structure has, in some areas, become rather cumbersome. Therefore a small working group has been established from the members who were elected to the council this June to review the organisational structure of our railway. Their aim is to create an organisation which will still be entirely volunteer run and will be fit for purpose in the control of our railway for many years to come.

As a limited company each council member is a Director of the Middleton Railway Trust Ltd. One of the aims is to clearly define the roles and responsibilities of our directors. Another aim is to ensure that the workload is more evenly apportioned amongst the directors. This project is on-going and may take some time to achieve as a few of our directors currently undertake too much of the work. It is my hope that the structure will be capable of looking after our railway for the next 50 years. Who knows what we will achieve in those next five decades? Regular trains to Middleton Park? The premiere collection of Leeds built locomotives? Trains running every day? Regular visits from coach touring companies?

The one thing that will be a certainty is that all of the achievements will be through the efforts of the volunteers supported by the other members of the Middleton Railway Trust Limited.

Malcolm R. Johnson
Chairman

Mrs Susan Youell - an appreciation



At the Railway we were all most saddened to learn of the passing of Susan Youell on 27th July 2017. The following Obituary tells you something about this extraordinary woman and the impact she made on the Middleton Railway and, indeed, on heritage railways generally.

SUSAN YUELL 1931 – 2017

Susan was born on 15th January 1931, the eldest child of John Harold Atherley, a chemist and Dorothy Jeffery, a baker's daughter in Nottingham. Susan was a bright young girl and spent a happy childhood with her family and wider family who were avid railway fanatics. Somewhat unusually for a girl at that time, Susan had a great interest in railways and was proud of the fact that she had seen Sir Nigel Gresley's Pacifics during LNER days!

Susan attended Mundella Grammar School in Nottingham. As a high flyer she gained a place at Leeds University after the war, to study Maths and Physics. It was no surprise that she joined the University Railway Society and met her husband-to-be 'Fred' Youell, a university lecturer and Founder of the Middleton Railway, and they married on 2 August 1955. They had three children, Harriet, Sarah (with a middle name of Claudia, after Claude Hamilton), and Matthew, named after Matthew Murray, builder of the World's first commercially successful steam locomotives for the historic Middleton Railway in 1812.

In 1960, Susan worked alongside husband Fred to re-open the historic Middleton Railway, first authorised by Act of Parliament in 1758 and thus the World's first parliamentary railway. Being a woman in a man's world was no problem for Susan. Through her no-nonsense style, she was able to make many a contribution towards ensuring this historic line was saved for posterity. Despite having a family, Susan also became secretary of the Association of Railway Preservation Societies, which became the Heritage Railway Association, the preservation world's Trade Body. From a very small group, Susan contributed to its growth into a massive enterprise. From those small beginnings, HRA now has over 100 members, a turnover of £120 Million and over 8 million passengers.

Susan was a passionate enthusiast and had numerous hobbies and interests which she fitted in alongside childrearing and teaching. She was passionate about education and took all opportunities to learn about railways, science, industry, history, arts and culture throughout her life. She inspired hundreds through her teaching, not just through her subject teaching in maths and science, but through her enthusiasm for life and no-nonsense "can do" attitude, especially for girls in a man's world.

Susan retired from teaching in the 1980s, and this provided more time for her to enjoy her hobbies. Despite illness, Susan-maintained her interest in railways to the end, visiting Keighley & Worth Valley Railway with family and friends just a couple of weeks before her death on Thursday 27th July. Her railway legacy is the Middleton Railway of which she was a founder and great supporter and the Heritage Railway movement itself, for which she worked tirelessly in the early years.

Sarah Lister [Daughter], Ian Smith [Vice President, MRT] 2nd August 2017.

The following article appeared in "The Times" on their "Women's Page" on Monday 17th July 1967, and was read out at Susan's funeral by Mike Crew, a fellow founder-member of the Middleton Railway.

It is reproduced here by kind permission.

Mother of the railway

In the world of railway enthusiasts, from small boys train spotting to adult owners of old steam engines, there are very few women. Mrs. Susan Youell, aged 36, of North Grange Mount, Leeds 6, is the predominant one.

She is secretary of the Middleton Railway Trust, the first standard gauge railway line to be privately preserved. She is also secretary of the Association of Railway Preservation Societies, a central body of 40 or more enthusiasts' clubs.

The mother of two girls aged seven and four, she finds organizing railway matters takes up one or two hours of every busy day. Her husband Ronald, a 42-year-old lecturer at Leeds University, is chairman of the Middleton line, which winds its way through back streets with goods traffic hauled by engines all manned by volunteers.

Mrs. Youell has train-spotted since she was a child, has ridden on the footplates of big steam engines, and has on occasions driven those on the Middleton line. "All the men in the family when I was young were railway enthusiasts. When I went to Leeds University I joined the University Railway Society, where I met my husband."

"I like travelling by rail, of course, and I'm fascinated about the history of rail. Now I've picked up the names of most of the parts of an engine. I can understand how they work.

"Mechanical things always have interested me. I read physics and maths at university, and I understand how a car engine works. This is why so few women are involved with railways, I think. They aren't interested in mechanical things and they don't like being associated with things that are dirty, like engines."

Mrs. Youell has picked up a lot of legal facts about railways; she has ordered coal; coped with emergencies; and generally become good at getting things for nothing. (The Middleton Line is short of money.)

There are an estimated 250,000 railway enthusiasts. "I think there must be only about 25 women who take an active and independent interest. The trouble is that some women make such inane remarks about engines, most of them can't be taken seriously."

She has one unrealized railway ambition. "When the children are older and I have time, I should like to pass my engine driver's test. Then I could drive engines officially."

The Editor is grateful to Andrew Johnson for drawing this article to her attention.

A Zambian mis-adventure from our intrepid explorer

A Zambian Mis-adventure

Outside Lusaka station there is an old steam engine set up on a plinth, looking very photogenic. Only there is a problem. You can't photograph it. I found that out the hard way. I was taking a photo when there was a heavy hand on my shoulder and I was dragged off to the police station inside the railway station. "What are you doing and why?" "Did you know it was forbidden to take photographs on Government property?" Of course I did not know but I should know because there it was written in black and white in a letter pinned onto the office noticeboard. I stood up to read the letter and sure enough, photographs were forbidden. I asked if there was any way around this and I was directed to the main offices for Zambian Railways at the far end of the platform.

The offices on Lusaka Station had most of the tiers of management and I started at the bottom.

"Why would you want to take photographs of a railway?"

"Because I am a volunteer at the world's oldest railway, in Leeds, England. I want to record my trip on your railway."

"We can't do anything without an official letter from your company."

Hmmm! "Have you got a piece of paper and a pen please?", and I wrote a letter describing Middleton and how it would be a privilege to record my experience on Zambian Railways. The letter was passed up the line and next day there was another interview with the next layer of management after which I was told to return the following day for a decision. The decision was favourable and a letter of authorisation would be ready for me if I called yet again, the next day.

I was to report to the guard when I got on the train and show him the letter authorising me to take photos. The wording of the letter was very strange. It stated that I was permitted to take photographs as long as they were not used for "malicious purposes" although I could not imagine such purposes. A guard would be on board to officially meet me.

Getting on the train to take pictures was not as straight forward as you would think, even with the permit. It is worth describing the Zambian system. It was conceived in the late 1800s as a section of Cecil Rhodes' grand vision of the Cape-Cairo Railway. It would join up all the areas of British influence in Africa. The first 150 miles of the Zambian (Northern Rhodesian) section was built in 1905. It crossed from Southern Rhodesia over a bridge across the Zambezi gorge, just a few yards downstream of the Victoria Falls. The bridge was delivered by the Cleveland Bridge Company of Darlington and officially opened in September of that year. It had previously been set up in their Darlington yard to check the accuracy of construction but when it was delivered and put in place it was 1¼ inches too long. Overnight, the bridge contracted in the cool night air and dropped into place.

Freight ran over the bridge from 1905 until the service was suspended in the 1960s when apartheid Southern Rhodesia declared independence. It was opened again in 1980 but only occasional trains run over it today because the state of the bridge only allows limited use.

The main line is single, 3'6" track and there are 500 miles of it from the Copper Belt bordering the Congo at a town call Ndola in the north to Livingstone in the west. In the 1970s, the Chinese built another two thousand

miles of line linking the old railway with Dar es Salaam in Tanzania (Tanganyika) and serving the northern half of Zambia. This gave Zambia a route to the sea avoiding the apartheid countries of Rhodesia and South Africa.

There is a completely separate line from Chipata in Zambia travelling a few miles into Malawi (Nyasaland) and on to Mozambique which they are still fiddling with today. It gives an alternative route for copper exports to the coast. There also is a short tourist line from Livingstone with two heritage steam engines running a dining car service provided by the Royal Livingstone Hotel. This was originally a private logging line into the teak forest.

Two diesels operate on the service between Ndola and Livingstone. They set off from opposite ends and cross midway.... except one of the diesels was being repaired when I wanted to travel. Just one diesel was servicing the whole line. Instead of having a simple timetable there was no timetable at all. The train came Monday one week and Wednesday another or maybe not. Anyway it was due on this particular Saturday and I planned to take the ride.

There is no ticket office. It is just a desk machine in the parcels office. I asked for a ticket to Livingstone and the lady, Beauty, looked at me in amazement. Are you sure? Why not take the bus? It is quicker. I said I was sure because I am a railways enthusiast. "One ticket to Livingstone. You are crazy", and I was given a ticket for 40 Kwacha (£3.50).

At the crack of dawn, on a cold morning, I was waiting for the train in a waiting room full of people better prepared than me for the cold and for whom 40 Kw was better than 250Kw on the bus. I did not think it could be so cold in Africa.

It was too much to expect the train to arrive on time after travelling through

the night from the North. I have seen TV programmes about rail travel in Africa and I was not really hopeful. I waited in a room full of people taking advantage of the £3.50 fare. There were few seats and my fellow travellers were strewn all over the floor amid great piles of bags and blankets. They had been there all night.

The train arrived eventually, two hours late and then there was a delay while freight was loaded. I boarded it, armed with my letter. I brazenly took pictures, half in the hope of feeling the hand on my shoulder, when I would flamboyantly produce my authority. Within minutes a guard introduced himself and he knew my name. I never saw him again. Surprisingly there were not many people in my carriage.

As soon as the train pulled away I knew the reason that Beauty was open mouthed when I asked for a ticket. The rails are so up and down that the train rocks from side to side. Anything above 20 miles per hour and you were likely to find yourself on the floor. In fact that did happen on two occasions. The train rumbled on and on at just above walking pace for hours. It stopped occasionally in the middle of nowhere where there was no station or platform. People appeared from nowhere to collect things from the luggage van; tin baths, thousands of plastic, litre bottles, mattresses and all sorts of household bits and pieces. Within a short time mattresses were disappearing into the distance rolled up on someone's head. In the other direction, long sugar canes, maybe 10 feet long, were threaded through the windows to be gnawed on by my fellow passengers – perhaps a sort of buffet service. I was warned beforehand that there were no refreshments on the train and certainly nowhere to hop off and refuel. After 10 hours – the bus would have been there long ago - there was a neat pile of pop

bottles, sandwich packets and crisp bags on the table. When a railway man walked by I asked him where the waste bin was and, without saying a word, he scooped up my rubbish and threw it out of a broken window. Perhaps the broken window was the reason that the carriage was under-occupied. It was getting cold. After 19 hours (but only 300 miles!!) it was very, very cold as we crawled into Livingstone.

In the early hours there were just a couple of taxis to greet the hardy passengers but the taxi fare was more than the train fare. My driver called at ten or so guest houses/ lodges until he found one with a room at that crack-pot hour and I tumbled into bed with my clothes on.

I learnt later that a private company was given a contract to operate and maintain the railways for 20 years. The contract was torn up in 2012 amid a lot of bad feeling. The “malicious purposes” in my letter stems from that time.

In Livingstone there is a railway museum with lots of dead locos in a large yard that may have been a goods yard. It is now all covered with wild grass that is barely kept under control. Of course many of the locos were Leeds built. Hand painted information boards filled in the details. I was the only visitor that day.

Leading away from the museum there is an old logging line. The first few miles have been overhauled and two steam locos do turn and turn about running a tourist dining car service twice a week. I wasn't surprised to learn that one of the locos was sick. The coaches are old South African ones that have been done up to Orient Express standard. They are plush with an air of a time gone by. In contrast they make our Middleton coaches look downright utility. The comfortable seating is arranged sideways to give a sociable

atmosphere. There are two dining cars that Agatha Christie would have been proud of. The train only runs on Wednesdays and Saturdays but an Australian party had made a block booking and their itinerary meant an extra day of steaming on the Tuesday. I was allowed to join them. Like on the main line, the train still runs at not much more than walking pace. We trundled along making idle chat for an hour or so about Poms and Edna Everage. There was a short stop to stretch the legs and look at the engine before we boarded for dinner and the return journey. Catering is by the Royal Livingstone Hotel chefs and the hotel claims to have five stars. The luxury trip made up for the 19 hours of slow rumbling through 300 miles of bush. Oh! And the Victoria Falls are nearby and worth a visit.

David Cook

‘No. 6’ Appeal:

Progress Report. August 2017

To date £2394.22 including tax relief, which has already been claimed, has been raised. The entire sum raised is available for the restoration of No. 6.

Council has agreed that restoration of the rolling chassis of ‘No. 6’ can start in 2018 – as soon as the overhaul of Sentinel ‘No. 54’ is complete and the axle box repairs to Brush-Beyer Peacock ‘No.91’ are finished. Council has also agreed that once the overhaul of the rolling chassis is complete it will be put on display in the museum to provide visitors with an unusual view of the working parts of a steam locomotive – valve gear, springs, axles etc. – whilst the boiler is sent away for repair and the tank overhauled and repainted. .

Since the appeal was launched approaches have been made to six Charitable Trusts to try to secure

additional funds and follow-up letters have been sent to four of these Trusts. To date one reply has been received advising that the Trust is now only providing educational bursaries (for Eton).

Approaches have been made to eleven commercial organizations with connections to the industrial and railway heritage of Leeds or a direct connection with 'No. 6'. To date a grant has been received from one company, two companies have sent acknowledgements but for commercial reasons declined to support the appeal and a fourth, Virgin Trains East Coast, worked with the Trust on a less specific project, a Team Building day which was hosted by the railway. Hopefully they will engage with us in other ways in the future.

A significant contribution to the appeal has been made by the sale of railway periodicals and model railway equipment donated to the Trust – for which thanks are due to John Linkins.

Hopefully the Trust will have an electronic fund raising platform up and running by the end of the third quarter of 2017 which should help the appeal.

Approaches will continue to be made to possible commercial sponsors and grant giving bodies in the next three months.

Fund raising is progressing but there is still a very long way to go.

Charles Milner
Fund Raising Manager

Safety and Operations

The update from the Safety and Operations Committee for this Old Run edition focuses almost solely on the update to rules and regulations, so here goes!

Rule Book Update

The Safety and Operations Committee is pleased to report that the revision to the Train Operating Regulations and associated Company Rules is now complete, and as of Saturday 2nd September, the updated rules and regulations are in force.

There are now three tiers to the rules and regulations:

Company Rules – these apply to all members, and a hard copy of these is included with this issue of the Old Run for those that have not already received them in person.

General Regulations – these apply to members who volunteer at the Railway and primarily concern the safety of these members when on site and around train movements. These will be issued to the relevant people in person. Should anyone else want a copy, please use the contact details below.

Train Operating Regulations – these apply to all members who are directly involved in train operations and the movement of trains. Due to the nature of these regulations, these require a face-to-face briefing, where the updated Train Operating Regulations will be issued. These briefings with the relevant members have been arranged; should anyone who has not had a briefing arranged want to receive a briefing and a copy of the regulations, please use the contact details below.

The updated rules and regulations will be subject to a 6-month review period, where feedback is encouraged and can be anonymous if members wish. Forms for this have been developed to capture any feedback (including suggestions for change if applicable), and all feedback received will be reviewed by the Safety and Operations Committee. The review will consider if any amendments need to be made to the revised rules and

Safety & Operations continued ...

regulations, and if so, these amendments will be made and updated documents will be issued accordingly. All feedback received will be responded to after the 6-month review period, so members can understand where changes have been made, or if changes have not been made, why they haven't been incorporated.

The updated rules and regulations are all available on the members' area of the website (once logged in, select "library" and then "Safety Management System" and click on this link. About 3/4 of the way down the webpage, there are links to the documents). The documents are A4 format and consistent with the page numbering of the A5 hard copy booklets for the rules and regulations.

Should anybody have any queries on the updated rules and regulations, or wish to arrange copies of the documents or a briefing, please do not hesitate to contact the Traffic Manager (Mark Whitaker – 07828 849113 / trafficmanager@middletonrailway.org.uk or the Safety Officer (Tony Cowling – safetyofficer@middletonrailway.org.uk). Feedback on the rules and regulations should be directed to the Traffic Manager in the first instance.

Incident and Accident Reporting

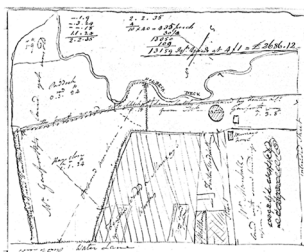
One of the duties of the Safety and Operations Committee is to investigate (where appropriate) and report their findings on any accidents or incidents that occur at the railway, with the primary aim of preventing recurrences of any incidents. To assist in this process, it is important that any incidents or accidents are reported. All accidents and incidents should be reported to the Safety Officer, and the Traffic Manager can also be notified, particularly if the incident relates to operations. There have been a number of minor accidents and incidents in recent weeks, which have been reported and are currently under investigation. The reporting of

these incidents is best practice and provides us with the opportunity to learn and prevent recurrences, making the Railway a safer environment, so please do not be afraid to report any accident or incident you may be involved in or witness – whether to members of the railway or members of the public.

To assist in the process of reporting, an incident report form is being developed. This will be a single form to be used for any accident or incident and is intended to make the reporting process easier, prompting for all the relevant information. In line with this, a review of the incident and accident reporting process will also be undertaken and updated guidance issued as necessary. It is currently envisaged this updated procedure and form will be ready for the 2018 operating season.

Conclusion: Holbeck Lodge, Matthew Murray's Home and Steam Hall.

James Watt junior's letter of 1802 about Matthew Murray building a house, "a superb house which Murray is building for himself." doesn't say where the house was, but he marked it on the sketch map he made of the Round Foundry site, and it wasn't Holbeck Lodge.

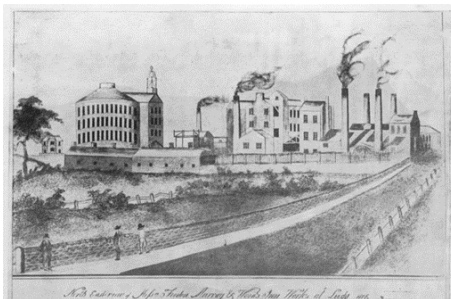


My thanks to Birmingham Museums/ Archives for the use of this James Watt quote and map.

In 1803 William Murdock, one of James Watts' Managers, visited Matthew Murray's Works and his new home. This 1806 engraving of Matthew

Matthew Murray's Steam Hall - conclusion

Murray's Works on Water Lane Holbeck, is believed to be the only known image of Matthew Murray's house. The house can be seen on the very left of the engraving, under the tree, with the Round Foundry to the right of the house. The actual position of Matthew Murray's home (within the works site) is just off Marshall Street, Holbeck and was diagonally opposite the right hand corner (as you look at it) of Marshall's Temple Mill.



In the Leeds Baines Directory of 1822 It has... *"Murray Matthew, iron founder; house near Water lane"*.. The works is listed as being: *"Fenton, Murray & Co. Water lane"*.

Matthew Murray died 20th February 1826. Also in the Commercial Directory of Leeds for 1826, page 93, we come across the first reference to "Steam Hall" which actually has his widow's address as: "Murray Mrs. Mary, Steam hall, Water lane".

For me, doing this research, this was the breakthrough I was looking for. An actual dated reference to "Steam Hall", and a second reference was to follow.

However, The 1830 Commercial Directory of Leeds, has Mary Murray living at "Marshall St. Water lane". Mary Murray continued to live at "Steam Hall" Marshall St. Water Lane until her death on the 18th December 1836. She was buried four days later

on 22nd December. The sale of her house contents was announced on the 31st December 1836 the advert for the sale of contents says the sale "is to take place on the Premises in Marshall-Street, Water-Lane, Leeds".

The following Notes, about Matthew Murray were contributed to the book, *Leeds Worthies*, published in 1865, and are by Joseph Ogden March, (he was Mayor of Leeds in 1862) machine-maker, who married Mary, the third daughter of Matthew Murray.

"He had the attribute of real genius - a truly liberal mind! nothing pleased him more than to exhibit the great stores of his rich mechanical mind to a kindred spirit. For clever tools and implements, and especially for the forgings of beat-iron work, such as parallel motions and the like, he was far in advance of others. A memorable instance of his liberality was shown by the invitation he gave to Mr. Murdock, the managing partner of Mr. Watt, to stop a week at Steam Hall, - Mr. Murray having built a very handsome house, which was called Steam Hall, because it was heated entirely by steam. Mr. Murdock accepted the invitation, and had free access to every part of the works, and every attention was shown to him."

I am now convinced that the only house that was lived in or owned by Matthew Murray and his family and was called "Steam Hall" was the one he built within his Works off Water Lane and Marshall Street. It certainly was not Holbeck Lodge as I have not found any reference during my research that Matthew Murray ever even visited the place. Steam Hall was demolished in 1838 and its building materials were auctioned off on 16th May that year, to allow for the building of a New Fitting Shop at the Works.

David Hector

We are now well into our summer season of operation and (touch wood) things have gone relatively smoothly. That is not to say that we haven't had our share of problems but we have not had any crises. The summer also brings holidays and overall progress tends to slow as a result.

1601 MATTHEW MURRAY

Has been in regular service throughout the season with no real issues. The brakes have been adjusted to take up wear but no other work has been necessary. The left hand leading axlebox has been reported as warm on a few occasions so we are keeping a close eye on it.

No. 6

No physical progress to report.

1210 SIR BERKELEY

The master plan (if there is one!) had this loco coming into the workshops for the start of its overhaul as soon as Brookes No.1 was finished. However, the completion of Brookes has been somewhat delayed and problems with D2999 have also taken precedence. The start of the overhaul is, however, getting closer but, until then, it remains on display in the Engine House.

No.11

Nothing to report yet again.

No.1310 (NER H)

Also in traffic and in regular use. The brakes have recently been taken up and the various injector pipes have had the joints tightened. These tend to work loose over time and need nipping up every so often. The whistle isolating valve has also been re-packed to cure a slight leak. The loco is going to the Mid-Suffolk Railway over the August bank holiday weekend where it will join the other remaining Y7 locomotive. It will be back for our Gala in mid September.

1544 SLOUGH ESTATES No.3

In traffic and used as required. The fireman's side injector steam valve is starting to pass steam when shut off and will require attention. However, this is one of those jobs where you don't know what problems you will encounter until you start it and, as it is wanted for service over the Bank Holiday weekend and for the gala, this is being deferred until after these days.

SENTINEL No.54

Although Brookes No.1 has been the priority in recent times, there has been some progress with the Sentinel. All the various boiler fittings have now been fitted, albeit temporarily, to enable the various pipe runs to be done. The pipework is proving to be a very mixed bag. It is all essentially the original pipework that came with the loco from B.R. back in 1961 and much of it is now life expired. It is not helped by the fact that Sentinel used steel for the union nuts rather than gunmetal and a lot of these are quite badly corroded. Each pipe is being examined and assessed. If fit for use it is then annealed and straightened when necessary. Where the pipe is condemned, new pipe and fittings are having to be made as replacements. So far, the injector pipework largely has been done, as has the pipework from the feed pump to the pre-heater and to the boiler. The pipe from the mechanical lubricator to the regulator has also been put in place and this has thrown up a puzzle. There should be a bleed and check valve where the feed goes into the regulator but this was missing. Not to worry as we have a spare. However, the pipe we have cannot possibly have been fitted to such a valve and appears to have been fitted straight into the regulator box. This cannot be as it just will not work! The solution is not a problem as it simply means modifying the pipe to suit but it would be good to

know how it was originally piped up.

The superheater and top plate have now been fitted to the boiler, as has the funnel base and twin funnels. As an aside, Sentinel never used the more usual term of chimney when referring to steam locomotives and used the word funnel, something generally reserved for ships. The cover plate and cladding top piece have been clamped to the boiler with some newly made clamps and all effectively sealed. Close fitting cover plates have been made to go around the superheater pipes. It is very important that all the little gaps where air can pass are plugged as even the slightest air leak can affect the ability of the locomotive to make steam. Once upon a time we would have used asbestos string to seal all the joints but this is no longer allowed. The alternative of ceramic or glass rope is nothing like as good and we will just have to wait and see how it performs.

At the bottom of the boiler, a new fire grate has been fitted but utilising the old fire grate carriers. The operating lever and clamp bar have been refurbished and await fitting. Once the grate was in place it was possible to fit the ashpan. This was made new some time ago and has since been in store.

Work has now started on refurbishing and, where necessary, replacing the windows. There are six of these; a couple are re-usable with minimal work, a couple need quite a bit of refurbishment and a couple are fit for nothing but firewood. A new frame is also needed to carry the front windows as the existing one was quite rotten.

The pressure gauge has been retrieved from store, along with the one for the exhaust steam. The pressure gauge, which is marked 'Sentinel' and could possibly be the original supplied with the loco, is getting a bit scruffy and was

reading incorrectly so it was originally decided that we would have new. However, it has proved impossible to get a new 5" dia gauge so it has been cleaned up and successfully recalibrated to give it another lease of life. The exhaust steam gauge has also been checked and cleaned up. Alas, we cannot find the vacuum gauge – it is possible that it has found its way onto another loco – so it looks like we will have to purchase a new one. That is, unless someone has one at home that he is willing to donate! The wooden pattress that carries the various gauges has been cleaned down and given several coats of varnish.

HE 2387 BROOKES No.1

Work has continued apace on Brookes. Whilst, in theory, it should simply be a case of bolting everything back together, the reality is far different. The cab top was fitted then we tried to fit the saddletank. After several attempts it was a lesson learnt. Because the present all-welded boiler is not exactly like the original boiler, it is necessary to fit the tank before the cab top can be fitted. This doesn't make fitting the cab top easy as it has to be persuaded to go between the tank and the cab side sheets but we eventually managed it.

The various fittings have all been stripped down and overhauled. The steam brake valve was in fairly poor condition and it was apparent that, at some time in the past, it had had a replacement valve which was marginally too big. This had caused it to wear badly and it needed the working faces to be ground back to flat and the valve modified to give the required clearance. The blower valve has needed a new spindle to be machined as the original was in poor condition. We decided to risk fitting the injectors without any attention, other

than cleaning, as these had been overhauled not long before the loco came out of service.

The cylinders on Brookes are lubricated by means of a hydrostatic lubricator. The one previously fitted to the loco was on loan from another railway and had been returned to them quite some time ago. We did have another hydrostatic lubricator in stock but this was a single feed one, unlike the one borrowed, which was a twin feed. The original lubricator would have been a single feed one so we are going back to 'as design'. However, the mounting bracket was not compatible with the new lubricator so a replacement had to be made. Another problem encountered was that the size of the connections required a piece of 5/8" copper pipe and we struggled to find a supplier for this. Eventually, a length was located in London and couriered up to Leeds.

The loco was essentially complete by the end of June and was steam tested on the 28th of that month. We were quite pleased that the list of snagging jobs was remarkably small and all have now been completed. The last job has been painting of the loco which, for various reasons, has been protracted. This has now been completed and the loco is expected to be tried on trains over the bank holiday weekend. If all is satisfactory, it can then enter service.

Stop Press: It was and it is!

Fowler 42200033 HARRY

Available for traffic and used as required. We have not yet found time to modify the exhaust oil supply or fit new drive belts, mainly due to people being on holiday.

Peckett 5003 AUSTIN'S No.1

The dynamo stopped charging the batteries. Initial investigation indicated that the problem was with the dynamo

itself and this was removed and sent for repair. However, this did not cure the problem and further investigation discovered another problem, this time with the voltage regulator. This has since been repaired and now all is working as it should do. The engine governor has also been playing up, resulting in the engine stalling when idling and a gear is engaged and the engine thus comes under load. The governor has received some attention and this has hopefully solved the problem. Now back in traffic and used as required.

D2999

This loco ran not one but two hot boxes at the end of May. It was subsequently moved into the workshops and lifted for examination. This, in itself, proved to be an extended task as it involved disconnecting the drive motor cables and the nose reaction blocks. The latter proved to be rather difficult. It was discovered that one of the long 1½" diameter bolts holding it all together was sheared and the second one was bent and it was this latter one that was difficult to remove. Two new bolts have now been made, ready for when the loco is re-assembled.

Back to the problem axleboxes, which were both on the left hand side. On examination of the front bearing, it was found that the bearing itself had worn sufficiently to eliminate the oil groove and starve the bearing of oil. Wear was also apparent on the side thrust faces and this had led to bad scoring of both the bearing and the wheel and flycrank thrust faces. Examination of the right hand axleboxes showed similar problems although these had not reached the stage of running hot. It has been decided to polish out the scored thrust faces as best we can and to white-metal the bearings themselves. The bearings will then be machined back to the correct

tolerances and re-fitted. Whilst this work is ongoing it is deemed sensible to fit new oiler pads and replace the flexible oil feed pipes although these have yet to be procured.

Whilst work on the axleboxes is ongoing, one of our volunteers has taken on the task of refurbishing the cab seats and fitting a central lamp bracket to both the front and rear. Having fixed head and tail lights meant that lamp brackets were unnecessary in its original role as a works shunter. However, this means that there is nowhere to affix headboards, something which we do quite regularly for birthday parties and other special occasions.

D577 MARY

The loco is available for traffic and sees occasional use.

HE 6981

The long task of needle-gunning the bodywork and frames of this loco continues as time and labour permits. Whilst most of the body is in reasonable condition below the rust and flaking paint, we have found an area of corrosion on the cab side sheets which will require repair.

D631 CARROLL

Available if required but generally on display in the Engine House. It did suffer from a vacuum exhaustor drive belt failure during July. This has been repaired but new drive belts are really required.

L.M.S. 7051

This Hunslet diesel has been in occasional use throughout the season with no problems. However, when in use on August 19th it became stuck in third gear. Fortunately this was at the end of the day and on the last run down from Middleton Park so it was able to limp along and complete its

duty. The Hunslet gearbox is a rather complex affair, with some ingenious interlocking to ensure that you can't engage more than one gear at once. It is this interlocking that has got jammed, preventing third gear from being disengaged but allowing first gear to be selected and engaged at the same time! At the time of writing this problem has yet to be sorted.

OLIVE

Work continues on the repairs to this vehicle at the Vintage Carriages Trust premises at Ingrow.

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

CARRIAGE & WAGON NOTES

LMS Brake Van No.158760

Work continues on this project with a regular Wednesday team undertaking the major body repairs. The major framework repairs have now been completed and attention has turned to fitting the various pieces of ironwork that hold the body together. Some of this is re-usable but some is in need of replacement due to being badly corroded.

Work continues to progress on the chassis as time and volunteer labour permit. The south end of the chassis is now effectively complete. Two of the remaining cast iron weights have been removed, needle-gunned and painted. However, the remaining weights are an estimated four tons and thus too heavy for our workshops lifting gantry to handle. These need to be removed using the 5 ton Smiths crane but the chassis is presently trapped in the workshops by **D2999** which, being off its wheels, is immovable.

Continued on page 18

Some of the locomotives we have overhauled during the

Mirvale © Steve Turner



Sir B



Sir Berkeley © Geoff Lee

Mirvale © Richard Holland



MSC 67 © Ian Dobson



past few years.

erkeley © Ian Dobson



The new star is Brookes No. 1

385 © Richard Holland



385 © David Monckton



MSC 67 © Steve Turner



Continued from page 15

Coaches

The problems with coach 1074 now seem to have been resolved. After many hours of work sealing all the areas where we thought water was coming in we eventually discovered a tear on the very top of the coach roof, well away from anywhere where water was appearing. This has now been repaired and appears to have solved the problem. We can now start the task of re-panelling the saloon interior and bringing it back to a standard fit for traffic.

The footboards on coach 1867 are starting to decay and are in need of replacement. However, rather than simply replace them it is intended to modify the arrangement to bring them above platform level and reduce the stepping distance to a more acceptable one. This work cannot be undertaken whilst the coach is in both weekend and midweek use over the school holidays as it is needed on all running days.

CRANES

Smith 5 ton Crane

In use, as required.

Booth 2 Ton Crane

Repainting of the carriage and chassis is now largely complete in black and signal red. The jib has been moved nearer the workshop to allow some welding repairs to be carried out. The bracing has suffered quite badly from corrosion in places and would require replacement if it was ever to be used again. It is, however, in a condition where it can be put back on the crane as a static exhibit. It has now been needle-gunned and painted red to match the crane carriage. It will be fitted back on the crane when suitable steel wire ropes have been obtained to support it.

COMINGS AND GOINGS

Quite some time ago now, the Trust council agreed that the Cockerill locomotive No.1623 was unlikely to find any future use on the Railway and, as it did not fit our collection policy, it was offered for sale. This disposal has not been actively pursued although several prospective purchasers have looked at it in the last couple of years. We have now found a buyer for the locomotive and a sale has been concluded. The two new owners both work for the North York Moors Railway and they have reached agreement for the locomotive to go there where they will be able to use their facilities for its overhaul. Its small size is not considered to be taking up valuable space whilst this happens. Its future after that is not yet decided but it has already been offered to Middleton for short periods if we should so wish. A date for its departure has not yet been fixed but is likely to be in mid-September. Until then it will remain on display in the Engine House.

It is not often that you get a telephone call offering you a working locomotive for nothing but that has happened to Middleton quite recently. The locomotive in question is a relatively late build Hudswell, Clarke diesel locomotive, works no. D1373 of 1966. The locomotive was built for the Mersey Docks & Harbour Board, their no. 45 and worked at Liverpool docks until that railway system closed in 1973. It was then sold to Esso Petroleum and worked at several of their sites before ending up at their bitumen plant at Cattedown wharf in Plymouth. Another locomotive at Cattedown wharf was a Sentinel 0-6-0 diesel and with the arrival of D1373 this Sentinel loco was relegated to standby and little used. A couple of enthusiasts enquired of Esso as to whether they could acquire the Sentinel and Esso agreed to donate it

Cuppa tea time with Ian and friends

to them. The group went on to acquire three further Sentinel diesels and became known as the Sentinel Diesel Group, basing themselves at the East Somerset Railway. The bitumen plant closed in 2008 and Esso offered to donate the loco to the Sentinel Group rather than scrap it. Thus, the locomotive ended up at the East Somerset railway where it was overhauled and fitted with vacuum brakes. However, the group were aware that it did not fit in with the rest of their collection and, following a visit to the Middleton Railway earlier this year they decided to offer to donate it to us.

The locomotive was inspected at the beginning of August and found to be in very good condition, both mechanically and cosmetically. The only negative noted was a bent rear buffer beam, which dated back to Esso days, but this is cosmetic and does not affect the functionality of the loco. Your Trust Council has agreed to acquiring the

locomotive as it fills a significant gap in our collection. We now have early and late build diesel locomotives from all three of the Leeds locomotive builders who built diesel locomotives (Hunslet, John Fowler and Hudswell, Clarke) to illustrate how diesel development progressed from the 1930s through to the 1960s.

D1373's technical details are:

| | |
|------------------|-------------------------------|
| Weight: | 36 tons |
| Length: | 24 ft |
| Speed: | 18 mph |
| Tractive effort: | 23,400 lbf |
| Engine: | Gardner 8L3B giving 260 hp |

Transmission: Hydraulic, utilising a Twin Disc 13,800 torque converter driving an RF11 final drive forward/reverse gearbox.

Steven Roberts
Mechanical Engineer



Ian Dobson's Famous Social Evenings

take place on the first **Tuesday** of each month, at Moor Road, starting at **7.30 pm**. It has been scientifically proven that there is nothing better to do on a Tuesday evening and, if you're lucky and ask nicely, Mr Dobson might even make you a cup of tea! Usual rules apply, all welcome, tea-break provided and no membership of any organisation is required, so bring your friends.

The programme for the rest of 2017 is as below.

3rd October - Was it really 20 years ago? – A look back at 1997 (Richard Senior)

7th November - Tren Italia, some recent travels in northern Italy (Kevin Tattersley)

5th December **CHRISTMAS QUIZ!!!**

FORST, Explosives, Haifa Harbour Works and Paving Slabs.

Correction: Since Part 1 of this article was published Don Townsley has supplied some new information about the livery of the Hunslet 14 inch locomotives supplied to Haifa Harbour Works. The, tank, cab, bunker and wheels were painted battleship grey lined black with a thin blue line on either side of the black lining; not light green with black lining as originally reported.

Continuing from the June edition:

The Caerwent factory was planned in 1936, occupied an area of 1580 acres, cost £7.2m to build and fit out and was constructed by Sir Robert McAlpine and Co. using a fleet of six 1930's built 13 inch cylindered Hudswell, Clarke contractors locomotives. After explosives manufacture ceased in 1967 the site became a munitions store for the US Army, holding at its peak 80,000 tons of munitions, and in 1993 became a Training Area for the British Army.

The last of the ex HHWD locomotives to be rebuilt was HE1682 which was rebuilt with a conventional Hunslet cab like the three locomotives overhauled for use at the Royal Naval Propellant Factory, Caerwent, was despatched to the Mersey Docks and Harbour Board (M. D. & H.B.) as their 'No. 14' in July 1940 and served there until scrapped in 1963.

The variation in the cabs fitted to the ex HHWD locomotives may be a reflection of the improvisatory nature of Hunslet's erecting shop repair gang who had a bit of a reputation for working outside the parameters set by the drawing office and were known on occasion to use

whatever materials were available to complete a rebuild.

After the twelve 14 inch locomotives were completed for the Haifa Harbour Works Contract, Hunslet built two more 14 inch saddle tanks for stock – HE 1691 and HE 1692. These locomotives were fitted with the upper halves and rear sections of the cabs originally fitted to HE 1585 and 1586 before they were modified for use on the Haifa contract. They were also fitted with all welded saddle tanks. The first of these locomotives was delivered in October 1935 to the Shap Granite Company Ltd. and worked there until scrapped in 1969. Whilst working for the Shap Granite Company the engine carried the name 'Haweswater'. The second of the stock locomotives, HE 1692, was sold to the Austin Motor Company for use at their plant and was delivered in March 1936.

The Austin Motor Company must have been pleased with the performance of HE 1692 because they ordered a second locomotive of the same design, HE 1814, which was delivered in September 1937. These two locomotives, named 'Austin 2' and Austin '3' respectively joined a collection of late 19th century six coupled Manning Wardle and Hunslet Contractors Locomotives which were supplemented by a 13 inch inside cylindered six coupled saddle tank built by Manning Wardle in 1921, 'Abernant', and a 14 inch six coupled saddle tank built to a Manning Wardle design by Kitson and Company in 1932, 'Austin 1'. The majority of the older locomotives were withdrawn by the mid 50's and between 1947 and 1949 the fleet was supplemented by two Davenport built USATC 0-6-0 Tanks. These survived until 1957/58 when they were replaced by two of

The story of Brookes No. 1 continues

the most famous industrial locomotives to operate in the United Kingdom, 'Vulcan' and 'Victor'. These were the last two of the three very advanced W. G. Bagnall built 18 inch cylindered 0-6-0 saddle tanks which were originally supplied in 1950 to the Steel Company of Wales. The two Hunslets, the Kitson and 'Vulcan' and 'Victor' all survived to be taken over with the Longbridge Works by British Leyland in 1968. The locomotives operated by the Austin Motor Company and then British Leyland were beautifully kept – as illustrated here showing 'Austin 3' at work in 1966.



HE1814 'Austin 3' At Work in the Longbridge Plant, 1966. Copyright David Cooke, Secretary Warwickshire Industrial locomotive Trust.

Sadly 'Austin 2' and 'Austin 3' were scrapped in December 1970 and March 1972 respectively. Happily four of the other locomotives which worked in the Longbridge Plant have survived: 'Vulcan' and 'Victor', 'Austin 1' and 'Abernant'.

At the same time that HE 1814 was built parts were prepared for a second 14 inch locomotive. This was eventually completed as HE 1815 in 1940 and was supplied to the Mersey Docks & Harbour Board (M.D. & H.B.) in June 1940 as their 'No. 13' – a few months before the ex HHWD locomotive HE 1682 was delivered.

At the time that HE 1815 was assembled and delivered to the M. D. & H.B. the company had just taken delivery of two 15 inch saddle tanks, HE 1984 and 1985, and was already operating two examples of the type, HE 1827 and 1828 delivered in 1937, and had two more on order, HE 2079 & 2080, which were delivered in March 1941. The procurement by the M. D. & H.B. of two non-standard 14 inch locomotives may have had much to do with speed of delivery; following the fall of France the West Coast Ports assumed greater importance than the East and South Coast Ports and became extremely busy with cargoes switched from these ports. Liverpool was the main destination for the Atlantic convoys and it is estimated that nearly 75 million tons of war materials entered the United Kingdom through this Port during the Second World War. This came at a heavy price for the citizens of Liverpool: over 4,000 people were killed in air raids on Liverpool and a similar number were seriously injured. During the period when M.D. & H.B. were taking delivery of new Hunslet locomotives the Port of London Authority loaned them two locomotives as well as loaning six locomotives to the Manchester Ship Canal Co.

HE 1815 was sent to Burrell & Co., Ellesmere Port for disposal c1964.

Like most engines which worked for the M. D. & H.B. Nos. 13 & 14 were fitted with spark arrestors and movable chimney mounted smoke deflectors to permit them to work under the Liverpool Overhead Railway and in warehouses.

By June 1940 the story of the Hunslet Engine Co. 14 inch saddle tanks might have come to an end but for a further intervention by the United Kingdom Government.

The last part of the story of the FORST class begins one hundred years before

Brookes No. 1 continues

in 1840. In this year Queen Victoria married Prince Albert of Saxe Coburg Gotha, the world's first postage stamp, the Penny Black, was issued, the first steam powered transatlantic passenger and mail service was launched by Cunard, Stockport viaduct was built and Joseph Brooke founded his business in Lightcliffe, near Halifax, to quarry and in some cases mine the local hard Yorkshire Stone. This stone, sold as 'Silex' stone, was exceptionally hard wearing and gritty and so was ideal for staircases and paving. In time his sons Aspinall, Newton and Willie joined the business which grew and prospered with the massive expansion of private dwellings for the burgeoning middle classes and the development of paved footpaths and public places in the second half of the 19th century.

Because of the high cost of natural flagstone there was great interest in the later years of the 19th century in developing a concrete paving slab which could be mass produced. The early types of concrete paving slab had the grave defect of being slippery in some if not all weathers. The Brookes Brothers solved this problem by developing a hydraulically pressed concrete paving stone which incorporated Silex stone waste as the aggregate to give it non slip properties. Their invention was patented in 1898. By 1910 over 500 local authorities as well as railway companies and other undertakings were using the artificial paving slabs marketed as 'Nonslip Stone' by Brookes Ltd as the company was then known. In the early years of the 20th century Brookes Limited expanded rapidly, acquiring quarries in the Channel Islands, Wales and Scandinavia and cargo ships to move quarried stone from their overseas quarries to the United Kingdom.

In 1906 Waterclough Colliery near the Lightcliffe site was acquired to supply

fireclay for the company's brick making activities as well as coal to fuel the work's boilers. The expansion of the business was brought to a halt by the advent of the First World War and a part of the Lightcliffe site was dedicated to the production of Picric Acid (2,4,6-Trinitrophenol) for use in munitions. As an aside Brookes developed an entirely new Picric Acid manufacturing process which increased material efficiency from 70 to 80%, reduced labour requirements by 90% and reduced the size of the plant by over 80% - a very significant achievement and a demonstration of the inventiveness of the company at this time.

Expansion resumed after the war with the development of plants to make road stone from iron works slag at Frodingham and Tunstall and the production of bitumen based road coatings at Lightcliffe. By the 1930's Brookes Ltd was one of the largest producers of roadway and building materials in the world. For a variety of reasons the company began to decline after the Second World War and retrenched to the Lightcliffe site. The company did not keep abreast of modern developments or invest in modern manufacturing equipment and in 1969 the surviving members of the Brooke family sold the goodwill and manufacturing details of Brookes Chemicals Ltd to East Lancashire Chemicals of Droylsden.

With the exception of the No. 2 Nonslip Stone Plant which was eventually sold to Marshalls (Halifax) Ltd., a local quarrying and engineering firm, the Lightcliffe site was closed down; Waterclough Colliery followed on the 18th February 1969, the brickworks and other plants on 18th March 1969. By the time of closure the majority of the plant was so old and antiquated that it was only of value for its scrap metal content. After closure of the works the

site was cleared and the land sold to Phillips Electrical and Associated Industries Ltd. for development as a washing machine factory.

A standard gauge railway system had been built to connect the various quarries operated by the company to a central stone preparation plant at Lightcliffe and to link the site to the Lancashire and Yorkshire Railway's (L & Y) Halifax – Bradford line. The railway system commenced with a pair of sidings beside the L & Y main line and ascended at a gradient of 1 in 14 to the works where it divided into a series of sidings. A short section of track with a reported gradient of 1 in 9 took the railway system up to the main operating level of the works where it divided into a series of sidings serving the various production plants, warehouses and loading/unloading bays. In addition lines ran from the upper level of the site to the quarries and an extension of the system ran to the terminus of the aerial ropeway which transported clay and coal to the site from Waterclough Colliery.

This line plus lines to some of the quarries and off site warehouses crossed the A644 Brighouse Road and there were public rights of way across parts of the works providing opportunities for interested parties to view the operations of the railway despite the hostility of the Brookes family to enthusiasts visiting their works. A generously proportioned two road shed capable of housing four six-coupled saddle tanks was provided. At its peak there were eight miles of track though this had declined to about four miles at the time of closure. The track was originally laid with 80 lb bull head rail on wood sleepers with ash ballast though relaying done in the 1950's used 90 and 95 lb rail. The track was built and maintained to an unusually good standard for an industrial railway.

Not only were some sections of the track very steeply graded but many of the curves were to a very tight radius which had a bearing on the company's motive power policy.

Incoming goods were mostly cement, granite, coal and crude bitumen and outgoing traffic was stone flags, refractory and glazed bricks and road coatings. Locomotives worked chimney first up hill and pulled wagons from the exchange sidings, though they usually pushed wagons within the works. At its peak approximately 137,000 tons per year was moved by rail on and off site but by 1958 traffic had more than halved to 64,000 tons per year and in the last year before closure only 25,000 tons was handled by rail.

To work this extensive system one new and one nearly new Manning Wardle L class saddle tanks were procured and were respectively named 'Silex' and 'Nonslip'. One of these, Manning Wardle 1320 'Nonslip' eventually found its way to the Shap Granite Quarry which was managed by the Brooke family though financially independent of Brookes Ltd.

The Brooke family, most notably Newton Brooke, took a particular interest in their railway and when in 1911 a third locomotive was required Newton Brooke worked with Manning Wardle to develop a locomotive specially suited to his railway with its combination of steep gradients and sharp curves. The result was Manning Wardle 1803, a handsome 14 inch cylindereed six coupled saddle tank delivered in 1911 and named 'Nonslip II'. Sadly this locomotive did not live up to the maxim 'what looks right usually is right' and was sold in 1917 to Airedale Collieries Ltd. The next two locomotives were delivered in February and March 1916 – one as a replacement for 'Nonslip II' and the other to help with the additional wartime traffic. They were

Brookes No. 1 continues

both Manning Wardle L Class saddle tanks, of the same design as 'Mathew Murray', and carried the names 'Nitro' and 'Azo'. These names were chosen to reflect the company's involvement with Picric Acid manufacture. To minimise risk of fire during the period that Picric Acid was made on site the two new locomotives were fitted with balloon type spark arrestors as was 'Silex.'

By 1924 'Nitro' had been shipped to the Brookes quarry in Alderney and 'Azo' and 'Silex' were showing signs of age. The company approached a number of builders for a replacement but only Peckett & Sons of Bristol responded positively – the records show that Brookes had been a very difficult customer which may explain Manning Wardle's lack of interest. Again Newton Brooke took a hand in the design of the engine: he wanted a short wheel base inside a cylindered six coupled saddle tank. None of Peckett's then current designs of outside or inside cylindered saddle tanks met his requirements so they designed a new class of locomotive, the 1691 class, sometimes referred to as the XL class, for Brookes. This was a 13 inch inside cylindered 0-6-0 saddle tank with a rigid wheel base of 10 ft 0 inches and was capable of negotiating curves with a radius of 135 ft. After much argument about price and discount if a second locomotive of the same type was ordered Brookes placed an order for the first 1691 class locomotive which was delivered in June 1925 and named 'Nonslip No. 3'. Evidently 'Nonslip No. 3' must have been a success because a second locomotive of the same design was ordered from Peckett & Sons, P 1830, 'Silex No. 2' which was delivered in June 1931. The two Pecketts handled all traffic until the start of World War II.

The Brookes site had a lot of warehouse space and with the onset of

war the quarries were closed and this space was commandeered by the Government for the storage of food and wool. Train loads of up to 40 wagons a day of goods for storage were being received which required the services of one engine whilst Brookes' own traffic still required the use of a second engine. A spare locomotive was clearly desirable and on 27th September 1940 according to S. A Leleux's history of Brookes Industrial Railways the Government directed the order to the Hunslet Engine Company. Why the order went to Hunslet is not recorded. Peckett & Sons were very busy with war work at the time and could not offer a quick delivery: certainly no other builder could offer an engine which as closely matched the capabilities of the Peckett 1691 class as the Hunslet 14 inch saddle tank. In many respects the Hunslet FORST design was superior to the Peckett design, being more powerful and able to traverse smaller radius curves. Possibly the fact that the Brooke family would have been familiar with the operational performance of the Hunslet 14 inch saddle tanks through their involvement with the Shap Granite Company influenced the placement of the order. Given the patriarchal style of management of the Brooke family and their pride in 'their railway' it seems most unlikely that this order would have been placed without their direct involvement.

The result of this government directed order was Hunslet Engine Co. 2387, a 14 inch inside cylindered six coupled saddle tank which was delivered to Brookes in July 1941. Breaking with tradition the locomotive was named, '**Brookes No. 1**' after the owners and not after the products and was finished in a plain green livery. The locomotive was specified with standard buffers with 16 inch heads and also 'block buffers; to suit the internal use tipping wagons.

(ref. Don Townsley). If fitted, the 'block buffers' appear to have disappeared by the 1950's. Whilst HE 2387 was not a 'stock build' it was not a true 'new build' either but was constructed in part from a cache of spare parts which may have been created at the time that the two 'stock orders' were built in the 1930s. Shortly after the delivery of 'Brookes No. 1' the authorities decided that three engines were not required after all and so 'Nonslip No. 3' was sold to the War department, was numbered WD70210 and worked at various establishments before finishing its days at Ruddington in 1960.

'Brookes No. 1' and 'Silex No. 2' handled all traffic until the mid-1950s. By then 'Silex No. 2' required a new boiler and a full overhaul which would have kept it out of traffic for some time so, to safeguard traffic, a new steam locomotive was ordered. Brookes returned to Peckett and Sons but rather than order a new locomotive of the same design as 'Silex No. 2' they ordered a modified design with 14 inch cylinders, steam sanding gear and a raised boiler with a dome cover which was flush with the top of the tank. The resultant locomotive, P 2160, was the only example of the C1 class and was delivered in 1956. Named 'Nonslip Stone' and delivered in green paint picked out in black and fine lined with red this was the last steam engine supplied by Pecketts to the British market. 'Silex No. 2' was then sent to Bristol for re-boiling and a heavy overhaul and returned in 1957 - the last steam locomotive to have a general repair by Peckett and Sons Ltd.

These three locomotives then handled all traffic until the closure of the works. 'Nonslip Stone' worked the last production shifts before closure and then was steamed a few times after closure to move large items of

equipment sold before the main auction and then to marshal internal wagons. 'Brookes No. 1' had a firebox patch fitted in December 1963 and a new set of axlebox brasses were fitted in the Spring of 1968. After this repair its green livery was improved by the painting of a yellow disc on the rear of the bunker to make the locomotive more conspicuous. It worked again for approximately 3 months starting August 1968.

A comprehensive history of Brookes Ltd, and their railways and locomotives was written by S. A. Leleux, 'Brooke's Industrial Railways' Oakwood Press locomotion paper No. 63.

In the latter years the locomotives were used in rotation about three months at a time. 'Nonslip Stone' was preferred for use in the Winter months because it was fitted with steam sanding gear. When not in use the locomotives were stored in the shed covered with polythene sheeting to keep them clean.

Operations of the Railway in the early 1960s are described by Mick Lee in an article entitled 'Lightcliffe Memories' which appeared in the September 1995 issue (No. 142) of the Industrial Railway Record. Although the Brookes family themselves were generally intolerant of visitors to their railway, the staff, and in particular Mr Herbert Ward who was the driver for many years, were welcoming of visitors.

In the last years a fleet of 10 double sided tipping wagons, supplied by Hudsons of Leeds and commonly known as Jubilee wagons, were used to carry coal and fire clay from Waterclough Colliery to the works and crushed stone from quarry to works, three 12 ton bottom discharge hopper wagons were also used for internal coal traffic and six 13 ton wooden box wagons were used to carry weathered

Brookes No. 1 continued

clay from the weathering banks to the brickworks. A fleet of twenty, 20 ton capacity, tank wagons were used to carry tar and bitumen to bulk customers; these were all withdrawn by September 1967 because they failed to comply with current BR standards and were not replaced. Shock absorber wagons (SWAs) were commonly employed in the 1960's to transport finished products to rail served customers.

John Dawson visited the railway system during its week of operation in March 1969. He accessed the site from the rickety footbridge that crossed the line linking the BR sidings to the works and found the working engine, 'Nonslip Stone', standing idle outside one of the buildings. The crew were nowhere to be seen but they eventually appeared, told him that there was very little to do as the whole works was closing within a few days, and that all railway activity would cease. The mood was sombre and the feeling was that the three elderly brothers who owned the business had long since lost all interest in the works and had just run it into the ground. 'Nonslip Stone' carried out one or two jobs that day, bringing a wooden-sided wagon out from one of the loading docks and taking it down to the BR sidings, and returning with a single wagon after a short interval. A couple of other wagons were moved around and as a favour the crew took 'Nonslip Stone' to the shed and hauled out 'Brookes No. 1' to be photographed. Most of the day was spent sitting in cabins drinking the very sweet tea favoured by the largely Latvian workforce who worked on and around the railway. To the end the locomotives were kept in commendable condition as evidenced by John's picture of 'Nonslip Stone' standing near one of the sheds.

(See picture in next column)



Copyright. John Dawson

After the factory closed the remaining assets were sold by auction on the 16th and 17th July 1969. The locomotives were put up for sale on the 17th: Lot 710 was 'Nonslip Stone' and the successful bidder could have 'Silex No. 2' for the same price. Although bids were made by William Brooke and the Worth Valley Railway to save 'Nonslip Stone', Mortimer's of Bury, scrap dealers, were the high bidder and obtained the locomotive for £1325 and then exercised their option of 'Silex No. 2'. They tried to obtain 'Brookes No. 1' for the same price but this was separately auctioned and achieved a price of £1410. 'Nonslip Stone' and 'Silex No. 2' were cut up in August 1969 and because they contained less non-ferrous metal than estimated and because there had been a fall in the price of copper, Mortimer's lost several hundred pounds on the deal.

'Brookes No. 1' was destined for the same fate but the new owners of the site, Phillips Electrical and Associated Industries Ltd., wanted to create a small museum on the site to commemorate Brookes Ltd and have a locomotive displayed on a plinth at the Work's entrance. 'Brookes No. 1' was still available so in the Autumn of 1969 they acquired the locomotive from the scrap dealer and it remained in the old shed.

Charles Milner

To find out what happened next, see our next edition.

Middleton Railway MICs Winter 2017 to Summer 2018

Monday 9th October– Shunting and General Safety including some input on radio communication. This over-arching course will also allow some reflection related to the new rulebook and its implications on some areas of our operations. A key MIC for all volunteers. Lead – Mark W. Support – John L

Tuesday 14th November – Santa Season. An overview of both the operations and commercial aspects of this vital period in our railway's calendar. Chance for feedback and sharing of good ideas as ever! Lead – Janet A. Support – Mark W, Malcolm J.

Thursday 11th January – Civil Engineering. A look at civil engineering, including rail wear, the state of our track and how it's condition is affected. Covering the planned works in 2018 and a brief introduction to our new buildings. Lead – Mark C

Monday 12th February – Volunteer Management, Induction and Safeguarding – With many changes both formally and informally in how our railway manages induction, safety and the welfare of our volunteers this MIC is key for anyone and everyone no matter how long you have been part of MRT. Lead – John L. Support – Andrew G, Malcolm J, Mark W.

Tuesday 13th March – The Diesel Fleet. A variety of locomotives will be covered including ones new to our fleet, a chance to share good practice for all our crew. Lead – Steve R. Support – Mark W, Richard P.

Thursday 5th April - Guarding. An important refresher in an area that provoked great discussion last time around, this will also support those who are new to guarding/have recently taken a conversion. Lead – Mark W. Support – Douglas L, John L.

Tuesday 8th May – Steam Fleet - Overview of the steam fleet, including specific pointers relating to the Sentinel and good practice as the new season opens. Lead – Steve R. Support – Mark W, Mike M.

Monday 11th June - General Safety and Induction. This over-arching course will also allow some reflection related to the new rulebook and its implications on some areas of our operations. A key MIC for all volunteers. Lead - Mark W. Support – John L.

All MICs take place in the Engine House from 7.30pm. Please see John L or Mark W for further details. Practical sessions are also being planned to accompany the above.

Training is also being planned and provided for our young volunteers, those under the age of 18, details of which will soon appear in the workshop, Engine House and on the members area of the website. Any members who are able to assist with running sessions for our younger volunteers are requested to talk to John Linkins in the first instance.

Joseph Priestley and the Middleton Railway: a tenuous link worthy of exploitation

Prof Peter Excell

Joseph Priestley is widely thought of as being “the discoverer of oxygen”. In fact, there are caveats to this claim, but he was actually a multi-talented and colourful character who is appreciated for a far wider range of achievements by those who have studied his work, especially in the USA. He was a pioneer of electrical science and of optics; he was a deep and radical political thinker, befriending the founding Fathers of the United States and ultimately becoming viewed as one of them; he was fluent in six languages and used this knowledge to develop an independent perspective on religion (he qualified as a nonconformist minister).

What has this got to do with the Middleton Railway? Well, as we know, the Middleton Railway was established in 1758, when Priestley would have been 25. He was born in Birstall, only a few miles from Leeds, and brought up in Heckmondwike. In 1752 he was accepted for training in the nonconformist ministry at a college in Daventry, but he would surely have made occasional visits to his family in the Birstall area. From Daventry he obtained a job as a minister in Suffolk, but this was not a success and he moved to Nantwich, where his career took off, not least because he met and married Mary Wilkinson, a daughter of the ironmaster Isaac Wilkinson and a sister of “iron mad” John Wilkinson. From Nantwich he moved to Warrington and then in 1767 he moved to Leeds, becoming the Minister of Mill Hill Unitarian Chapel, in City Square.

He remained in Leeds for six years, during which time he was very active in scientific research as well as political and religious controversies. He was

one of the founding subscribers of the Leeds Library (the independent subscription library in the city centre, still in existence) and this would surely have been a focal point for the intellectual life of the city. I am waiting for evidence, but it seems very likely that one at least of Matthew Murray, John Blenkinsop or someone from the Brandling family would also have been members and would have met Priestley in this period. In addition to being a minister of religion, during this period Priestley established a business with a family member in making electrostatic charging machines, intended for electrical research and/or for medical shock therapy. He also undertook chemical experiments at the brewery (generally thought to be a predecessor of Tetleys, although I am not sure there is an unbroken historical thread there). Here he was noted for discovering “fizzy drinks”, by sloshing water from one flask to another in the concentrated carbon dioxide above the fermenting vat. He marketed the drinks as having beneficial medical properties, a somewhat dubious claim, but, as with the electrical machines, illustrating his acumen in getting involved in scientific and technology-based commerce. Given this, it seems to me to be highly likely that he would have been drawn to the technological entrepreneurs surrounding the development of the Middleton Railway, although I have not yet found proof of this.

However, given that the evidence of contemporaneity between the development of the railway and Priestley's time as a minister in Leeds is clear, it seems to me good enough to use this as a means of broadening the appeal of the railway, specifically reaching out on the one hand to people interested in the Georgian period and in re-enacting it and, on the other hand, in

using a combination of the railway, steam technology and Priestley's science as a vehicle for events to encourage interest in, and understanding of, the STEM (Science, Technology, Engineering and Mathematics) subjects: a theme that is currently very highly favoured in the educational establishment.

I rest my case here, but would be happy to advise on other aspects of Priestley, his life and work if railway members wished to pursue this idea further.

If you would like Professor Excell to expound further on the subject of Joseph Priestley in this context, please email the editor, who will pass on your request.



In Memoriam



This lovely bench has been presented to the railway by Brian Jenkins in memory of his son Mark. It sits on the platform and the plaque reads:

1970 Mark A Jenkins 2017

**In Loving Memory
He loved the Railway**

Mark will not be forgotten by all those many who were his friends.

Mrs Margaret Lickess, Secretary of the Nelson Branch of the Oddfellows Society, presenting a cheque for £453 to the Railway in memory of Geoff Nettleton who sadly passed away in December 2016.



Dear Editor

Nineteenth-century American Populism and the Railways

There's been much discussion of populist political movements in the news over the last year or so, what with Donald Trump and others. Setting the current situation on one side, however, I learn from a recent broadcast of "In our Time" on Radio 4 that there was a previous wave of such a movement in the South and West of the US in the late nineteenth century (there being nothing new under the sun, of course). For a while, it came close to disturbing the two-party system in the States. It arose because the farmers, who predominated in these regions, felt they were getting a raw

Letters to the Editor:

deal from the banks and from the railroad (sic) companies. Above all, they were getting poor prices for their products. Why was this? This is where the railways (in concert with their cousins, the steam freighters) enter the picture. The late nineteenth century saw the opening up, that is to say, the cultivation and the inclusion in the world market, of great, hitherto under-exploited, areas of land - the South American Pampas, South Africa, Australia, New Zealand and the Ukraine. Prices of all manner of products fell.

The tide however receded - partly because the Democratic Party adopted some of the populists' demands. Then prices recovered due to poor harvests in Europe. Then came the First World War.

Richard Stead

Thank you Richard for this interesting insight; history has an annoying habit of repeating itself time and time again and yet we never seem to learn from the process.

Editor

Dear Editor,

Many congratulations for Old Run 235. It was, as usual, an excellent issue. I was very interested in Charles Milner's article on Hunslet inside-cylindered 0-6-0STs and wonder whether readers might be interested in the attached photograph which shows Hunslet 1659/1930, mentioned by Charles in his article, at ROF Holton Heath. I visited this establishment (with appropriate permission!) on 12th June 1961. As can be seen the undergrowth was already encroaching on 1659 which had clearly been out of use for some time. The double cab roof can be discerned and the wheel-and-handle smokebox door fitting can also be seen. Entering stage right is the only other steam loco present, Bagnall 2596/38, also well out of use.

Jim Ballantyne

Thanks Jim, for your kind words, historical information and the picture. It is of great interest to us.

Editor





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Picture taken by Steve Roberts when he went to inspect the locomotive at the East Somerset Railway at Cranmore in August this year



In service at the East Somerset Railway