

**HALESWORTH & DISTRICT
MODEL ENGINEERING
SOCIETY LTD**



NEWSLETTER



WINTER 2008

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(locomotives)

Guard Authoriser	Philip Hall
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COVER STORY

A visit to the Falkirk Wheel is described by Philip hall on page 6.

FROM THE EDITOR'S BENCH

Just to make life interesting I decided to make a few extra mistakes in the last newsletter! Although I take the blame for the errors I was not the only one to read it before it went to print.

A special thank you to all the members who rallied to get some extra articles for this publication, it does make my job so much easier and a pleasure. If you have not submitted an article yet then now is your chance!

Michael Ovenden

SECRETARY'S NOTES

The New Years Day steam up was very well attended with plenty of traction engines and locos in steam with our loco Southwold putting in sterling service. It was a bit chilly and the best place to be was in the driving seat behind a large firebox with a white-hot fire. For those that wanted to warm up on the inside the hot soup and bread provided by Maureen Churchill did the trick.

Locos did a good job of cleaning the rust off the rails but the traction engine boys showed the flexibility of road vehicle models when they took to the highways, travelling along the back lanes to Wangford.

A big thank you to Jim Marshall for allowing us the use of his land for parking without which we would have had a problem.

Ground Level Track

Everything completed apart from two or three fishplate joints. It will need a bit of ballasting in the spring but this is just routine maintenance.

Raised Track

A group have got together and are making progress with replacing the fixings. It's a case of keeping up the momentum and getting the hours in

Traction Engine Roadway

Edging the traction engine roadway has progressed well and should be complete by the time you read this newsletter. With the number of traction engines in the club it has been suggested that we forget about

signals for the railway and concentrate on making the roadway more realistic. i.e. speed restrictions, lane closures, traffic cones and safety cameras.

Easy Times Ahead for the Thursday Gang

You must be joking. Just as the various jobs to do were moving to completion and it looked like the Thursday Gang would have to make do with playing trains or traction engines, Kevin Rackham came to the rescue with the announcement that a miniature railway station canopy was available by sealed bid auction from Sizewell A. Of course the people at Sizewell didn't realise what it was and for a number of years had used it as a pair of bike sheds. We were successful in our bid and the component parts are now stored on our site awaiting erection.

New Members

Two new members have joined the club. Welcome to Barry Broughton from Ipswich and Dave Fountain from Lowestoft.

Annual Dinner

Once again this popular event will be at The Priory, St. Olaves. The date this year will Friday 27th March with a 7.30 for 8.00 start. The price this year will be £15.95 per head and the menu selection with booking form will be circulated shortly.

Don't Read This

On the basis that items not read are taking up valuable space in the newsletter, a smaller font has been used. It says if you are able to give a talk or demonstration or have ideas for meeting nights for the coming year's programme, please contact Terry Fleet or Chris Walliman. Meeting nights are 1st and 3rd Thursdays of the month.

Programme 2009

Until publication of the new programme for 2009 we will continue to have meeting nights on the first and third Thursday of each month.

Finally, the boiler testers have been under pressure to remember which member had a defective pressure gauge during a steam test in the summer. In order to avoid the increased pressure of workload on the boiler testers by recording "failed, retest required" and putting the owner under pressure of having to prep for a retest, a serviceable gauge was robbed from the clubs stationary steam plant and the steam test completed. However we do need a serviceable replacement gauge for the club. Would the guilty party please contact Vic Churchill.

Chris Walliman

Following on from Terry Fleet's jottings, Don Black has supplied us with some more words of wisdom. These are also taken from a book published in the last century!

THE TEN DIESEL COMMANDMENTS

- I. THOU SHALT AT LEAST KEEP THINE ENGINE CLEAN.
- II. KNOW THINE ENGINE—ITS PARTS AND FUNCTIONS.
- III. BE NOT WISE IN THINE OWN CONCEIT. REMEMBER THE FACTORY INSTRUCTIONS AND KEEP THEM HOLY : LEST EXPENSIVE REPAIRS BE THINE UNDOING.
- IV. BE NOT LOOSE IN THY JAW—NO MAN KNOWETH ALL ABOUT DIESELS,
- V. RESPECT THE INJECTOR, ALSO THE FUEL PUMP—AND KEEP IT HOLY. LET NOT THY HELPER TAKE IT APART, NOR THY BEST FRIEND. ONLY SKILL IN PRECISION WORK AND CAREFULNESS WILL KEEP THEE OUT OF EMBARRASSMENT.
- VI. BOOKS THOU MAYEST READ—MATHEMATICS THOU MAYEST PRACTICE. BUT THE VOICE OF EXPERIENCE THOU SHALT HEED, ELSE THY READ SHALL BUT PLAGUE THEE WITH SMOKE.
- VII. GOD MADE THE EARTH TO ROTATE ENDLESSLY WITHOUT BEARINGS OR OIL : BUT FOR SOOTH : MAN MADE DIESEL : KEEP IT WELL LUBRICATED
- VIII. CURSE NOT THINE ENGINE WHEN IT TURNETH NOT, CURSE RATHER THINE OWN STUPIDITY.
- IX . A FOUL ADJUSTMENT SPOILETH THE PERFECTION OF THINE DIESEL. BUSY THYSELF WITH THE PROPER GAUGES AND WRENCHES. BE THOU REGULAR IN THINE ATTENTIONS LEST THY POWER FAIL WITH NEGLECT.
- X. THE EXTERNAL EYE WATCHETH UNIVERSAL OPERATIONS. BUT THOU SHALT NOT RELY ON IT FOR THY DIESEL. THINE OWN VIGILANCE IS THE PRICE THOU PAYEST FOR THY JOB IN PEACE, AND THY SACRED DUTY IN WAR.

A VISIT TO THE FALKIRK WHEEL

The Falkirk Wheel was a £84.5 million pound project to restore navigability across Scotland by re-connecting the Forth and Clyde Canal with the Union Canal at Falkirk. Here the Union Canal is 35m (115ft) above the level of the Forth and Clyde Canal. This was previously served by a flight of 11 locks that stepped down over a distance of 1.5km but these were dismantled in 1933 thus breaking the link. British Waterways started thinking about restoring the connection in the mid 1990's, but construction was not started until the millennium. What was needed was some form of boat lift and the resultant perfectly balanced structure is the Falkirk Wheel, which is the world's first and only rotating boat lift. The idea was to create a lift that would raise and lower boats swiftly and to celebrate the millennium with a suitable structure. The shape of the wheel is said to have been inspired by the shape of a Celtic double-headed axe.

Construction

The various parts of the wheel were constructed and assembled like a large Meccano set at the Butterley Engineering Steelworks in Derbyshire, using 1200 tonnes of steel and fitting the pieces together with an accuracy of just 10mm to ensure a perfect fit. In the summer of 2001 it was taken apart and transported by 35 lorries to Falkirk, re-assembled on the ground and lifted by crane in 5 large sections into position. A 180 metre tunnel was dug through the hillside and a new section of canal was constructed beneath the hill. This was connected to a reinforced concrete aqueduct, which was then extended to meet the wheel. The total weight of both gondolas, boats and water is some 600 tonnes and this imposes immense stresses on the wheel as it turns around the central shaft. Normally welded joints in the steel would be susceptible to fatigue, so to overcome this the steel sections were bolted together using over 15000 bolts matched to 45000 bolt holes, each one being hand tightened.

How does it work ?

The Falkirk Wheel is connected to a reinforced concrete aqueduct at the top and the Roughcastle tunnel runs off this to a double staircase lock to the Union Canal. Boats entering the upper gondola are lowered to the basin below together with the water they float in and at the same time the bottom gondola is raised to the upper level. This takes 4

minutes as opposed to a day, which it used to take when negotiating the flight of 11 locks. This ensures that the wheel is perfectly balanced and the gondolas remain horizontal at all times. Ten hydraulic motors located in the central spine power the whole wheel. They use a very small amount of energy, just 1.5kw of electricity to turn it. Each gondola can carry 8 or more boats at a time according to their size. The maximum size of boat that can be accommodated is 21.33m(70ft) long, 6m(19.8ft) wide, 1.37m(4.6ft) draft and a maximum weight of 200 tonnes. Each gondola holds 300 tonnes of water.

Visiting the wheel

The Queen opened the Falkirk wheel on 24th May 2002. If you visit the wheel as we did, you can take a trip on one of the specially designed narrow boats. You enter the lower gondola, the gates close behind you and you gently rise to the upper level 35 metres above. On reaching the upper level, the gates open and you pass along the aqueduct and enter the 180 metre Roughcastle Tunnel emerging at the lock entrance to the Union Canal. You then return by the same route. Wonderful views of Falkirk and the surrounding area can be seen from the top of the wheel and it is well worth taking a camera not only to capture the wheel itself, but also the local area. A very informative and humorous commentary is given during the boat trip and there is ample time for any questions that may be asked. We found the whole visit fascinating and well worth the cost at £8 per adult and it was wonderful to see this marvellous piece of British engineering.

Phillip Hall

MY ENJOYABLE, BUT EXPENSIVE DAY AT BRESSINGHAM

I thought I would go along to the miniature rally at Bressingham to support some of our stalwart members, even though I did not enter anything myself (the 4" Garrett still to be finished off).

On arrival I set off to the rally field to look at the models only to be met by Dick Barker who eventually excitingly steered me over to look at a superb model of a 'Walsh & Clark' ploughing Engine in 6" scale. Dick said "It's up for sale at a bargain price, I would buy it myself, but I've

got too many projects on the go now. It runs on petrol, you ought to buy it so there is no excuse to say 'my boiler test has run out' etc. etc." I cannot think what he meant by that!

I awaited the owners return and over a cup of tea, he and his wife, both in their eighties, told me the history of how they spent 18-24 months scaling down the size of the full size one at Stowmarket Museum. They had then built the engine together.

Well I was smitten and the deal was done and I returned home to fetch the small box trailer. The Rover biscuit tin was taken from beneath the floor to remove some 'dosh'. I then asked her indoors if she fancied a ride back to Bressingham. She sussed me out straight away and her words rang out "Wot the hell have you bought now!" (She did not really mean it). So off we went to the rally field to hand over the 'dosh' and load it up.

I thought the trailer would have been plenty big enough, but we had to remove the chimney and in it went with only 2" to spare, sides and back. I do not know who was more excited, me or Dick. As we drove away his words rang out "There is no excuse not to come to Henham now, I will bring the petrol" – What did he mean?

Well alas I did not make it to Henham as the wife suffered a heart attack at the time and I was left in charge at home as chief cook and bottle washer. If you are wondering she is fine now and I look forward to next year when I hope to have more time than I have had this year.

Maybe more on the Walsh & Clark later.

Brian Read

SAVING A SORROWFUL WALLIS - 2

The second instalment recording the restoration and history of a very derelict 8 ton Wallis & Stevens type M motor roller.

After I had positioned the Wallis in the back garden of my home in Lowestoft and where I wanted to work on it, I built a 'tent' around the roller in order to keep both it and myself dry. I first built a framework of scaffolding around the roller, leaving about one

yard (metre) all round, and gave it a pitched roof. The structure was then covered with tilts.

The poor thing stood for over a year without me touching it as I had other projects on the go at the time. However, I did manage to do some research as I was very interested in finding out about its past history, but the only thing I had to go on was the registration



number, MOT 934. After putting an appeal in the local newspaper, to no avail, I wrote to the Association and was put in touch with the Rural History Centre at Reading University. At the time they could not help as I did not have the roller's chassis number, so they directed me to the Archive Office at Winchester. Here they were very helpful and gave me the chassis number, and informed me that the roller was new on 20 August 1954. With this information I contacted the Rural History Centre again, quoting the chassis number. From this they were able to send me a copy of the original entry in the Wallis & Steevens order book which revealed that the roller had been supplied to S J Brummell Ltd. of Baling, London W5. I then paid a visit to Ealing Library and looked through old telephone directories and discovered an address for S J Brummell Ltd. and visited the site. Unfortunately they had moved from the address many years earlier and the present owner, to whom I spoke, did not know where they now were. I returned to Ealing Library and continued my investigation, eventually discovering that S J Brummell Plant hire Ltd. had moved to Dollis Hill Garage, Burnley Road, London NW 10. One Saturday afternoon some time later I paid a visit to the garage but found it to be closed, so I enquired about the firm at the chemist next door. The lady in the shop was most helpful and told me Brummells had shut down some years earlier, and my heart sank, but somewhere in the shop she had Mr Brummell's address. It took her only about five minutes to come up with the goods.

When I got home I telephoned Mr Brummell and he was most helpful, sending some photographs of my roller when it was fairly new and working on a road resurfacing job somewhere in the London area. He

also informed me that the roller was originally bought by them and formed part of a large fleet and later was part of a business sale to Sherriff, a hire firm from, believe it or not, Nottingham. With this information I tried to contact Sherriff but found out they had been sold to another plant hire company called A Plant Ltd. and all the records had been destroyed.

So with the history side of the project brought to a halt I decided to try the spares side, for I knew I would be needing some. I discovered that Wallis & Steevens in Basingstoke had shut down and sold the spares to BSP of Ipswich, so I contacted them and discovered that what roller spares they had in stock had been sold to a firm called Bitman Products. I contacted them and they were very helpful. In due course I visited their warehouse and managed to purchase a brand new diesel stop cable, only because I found out that most of the spares were for later Wallis models.

At last, in the autumn of 2002, I started stripping down the roller and the main problem was the amount of corrosion. So I decided to have the chassis and wheels shot blasted and painted. Whilst stripping down the roller I found that the casing for the main clutch drive and gear box had a crack right through the bottom of it, so I ground out the crack and welded it up, which turned out to be a very slow process as it was cast iron. During the repair period I found out about another roller for sale in a scrap yard in Essex. It was a type M roller, the same model as mine, but built in 1963, so I went to have a look at it. On seeing it I immediately decided that it was an ideal buy for spare parts, because although it was in poor condition, it was not mechanically worn out like mine. The scrap man and I soon



made a deal and in February 2003 I collected the scrap roller with a low-loader. After I got it home and had washed all the muck off I noticed the name across the water tank was Glendining Roads. I telephoned them and spoke to a Peter Glendining and asked if he

remembered the roller. He did, because many years earlier the roller had been damaged in an accident, which had cracked the front casting right through both sides, resulting in the roller being broken in two! Apparently the insurance company had tried to write it off but he had got it repaired by bolting substantial plates across the crack. I told him that I had bought it to repair my roller and mentioned the Brummell name. He knew it well and had dealt with them in the past. The Glendining roller has now been stripped and the parts are in quite good condition, so I now have a good selection of spares. The remains of this roller have been scrapped.



Whilst moving some bricks outside my house in the spring of 2003 I spoke to a man whose relation lives next door. We were just talking generally when the subject of road rollers came up. It turned out that he used to work for a road rolling firm in London and many years earlier he had turned a roller over. He told me that whilst on his work with other men one morning, the road roller that they had hired was in the way of where they wanted to go, so the foreman told him to move it. This he did - down the hill. The roller started to gain momentum and he panicked, pushing the clutch in. The roller, of course, went even faster! He turned the steering to the right in panic and the roller went up a bank and turned over on its side! Luckily no one was hurt but he was indeed very shaken. He walked back up the hill to where the other men were and told the foreman that he had turned the roller over. The foreman replied that he had to turn it over in order to get it started. This chap replied 'No, I've turned the roller on its side!' With that there was all hell to play.

I took him to see progress on my roller and he commented that mine was the same type as the one he had turned over, but that it had a corrugated iron roof. I replied that mine should have a corrugated iron roof, but it was missing when I bought it. I then told him the history of the roller and he informed me the firm he had worked for did indeed hire rollers from S J Brummell of Ealing. What a small world!

Gary Edwards

CAPTION COMPETITION

As stated not really a competition, but it did bring forth a few thoughts which have been reproduced below:-

"A little of what you fancy does you good"

"So this is what it really means to be 'laid back' then"

"Aah! So that's what a bit of 'touchy feely' means"

And finally

*Vic saying "Eeh by gum where the ***** hell has Peter put the on/off switch!"*



And finally a festive scene from Gary Edward's roller restoration photos

Please note that the opinions and views in the articles published in this newsletter are those of the contributors and may not necessarily be those of H&DMES or its members.