

Reading Society of Model  
Engineers  
www.prospectpark  
railway.co.uk  
Charity Number 1163244



**President**

Les Dawson  
0118 969 4654

**Vice President**

John Sargeant  
01491 681520

**Editor**

John Billard  
0118 9340381  
07834 998971  
john@jegbillard.plus  
.com

**Free to members**

# The Prospectus

October 2018



Ex- Greek WD 2-10-0 90775 awaits departure from  
Sheringham on 15 September 2018 Photo J Billard

**DAWSON'S DIARY  
ACQUIRING BR RESEARCH  
YOUNG ENGINEERS CONTRIBUTE  
A NEW BACKSCENE  
PHOTO ANALYTICS**

## DAWSON'S DIARY

## kept by the President

September public running was once again fine and sunny, the members came up with a good many locos to run. With many of the membership away on holidays Pete Culham and Alf Cusworth did a grand job of keeping things running, smoothly much of the day. With Liz and Mike in the tea bar holding the fort made it a good day for the RSME. Not forgetting the running of the car parking, done mainly by Chas Benham and Dave Cole who turn up wet or shine it's a job that has to be done. We need a few more helpers on running days please!

I am sorry to report that our vice president John Sargeant has been admitted to the RBH after suffering a stroke, members of the club have been to see him. He can still communicate with you, we wish John a speedy recovery.

Since writing the above John is making good progress getting more movement in arms and legs which is good news for him.

Club running Saturday saw Stuart Kidd and his family having a good time on the tracks nice to see the young ones having a good time. Other members came to have run to find they had snags with piped leaking etc. This is what its all about on these running days. Nice to see Dave Jerome driving his Class 2 tank 2-6-2 loco he had a good run. Mike Jones had his Baldwin 0-6-0 tender loco running well after its annual steam test in time for next month's public running. The three Baldwins within the RSME do a large amount of work on these running days. The club's version is working very good with new bearings etc with good maintenance it should run for a long time.

We have gained two more new members one of which has started to build a narrow-gauge German 0-6-0 diesel outline with outside fly cranks and jack-shaft drive. It is good to see that models are being built from scratch like the wagons in 5" gauge that Alf is making. His latest is a 5" plank wagon which is coming on well.

Our worthy editor has now completed coming up to 150 issues of Prospectus since taking up the blue pencil for the RSME. Thank you John for a good read!

## PONDERINGS

by 61249

### Private Pastures New

The railway engineer who would have made a good job of running Railtrack and could possibly have made a success of it did not get the job. He left the industry and became the Chief Executive of the privatised technical wing of the Atomic Energy Authority. The company was called AEA Technology, for obvious reasons. His strategy was to take the UK nuclear and deep technical expertise into new markets, bearing in mind that in the UK there was, at the time, (post Chernobyl) no demand for new nuclear facilities, just an ageing stock of diverse power stations and facilities, with, for example, very little long-term waste storage facility.

Some of the country's most capable technical brains worked for the company, commanding high rates but with a tendency to be very specialist. Some of the specialisms had wider application – remote fatigue failure detection in pressure vessels being one example. This had to have a market value, as did the research capability that came with the associated labs and facilities, in which there had been considerable investment early in nuclear years. These included Harwell, Warrington, and outposts at each power station, including Scotland. Essentially AEA was a branch of the Civil Service, newly privatised, with world class research and thinking capability.

As part of the strategy to grow the business, the purchase of other research groups was an early interest, and the first successful acquisition of AEA was British Rail Research (BRR). AEA's CEO, Dr Peter Watson by name, now sadly no longer with us, had previously been the Board member for Engineering, British Railways Board, and in that capacity had appointed me as Engineering Director to Angel Trains. This became relevant as I left Thameslink and tragedy struck at BRR. The MD, visiting AEA HQ just 6 weeks into the new ownership, had a heart attack and died at work. AEA immediately needed a railway engineer who had some chance of understanding the business, and there I was – gardening. I got to hear of their predicament very quickly – the week I got the sack, so I applied and got the job.

I had survived 30 years of railway engineering without ever being sucked into the huge vacuum called Derby that gets everyone eventually. And now it got me, my office being firmly located inside Kelvin House at the Railway Technical Centre on London Road Derby. It was a building raised during the Harold Wilson “white heat of technology years” the mid 60s. Well past its first flush of youth, it had some good facilities for testing, for research, and for the development of product. And it housed brains in abundance, with world leading knowledge in some technical areas. There were many fears for the future of railway research in the private sector, but the portents were good, - a research based owner, a growth strategy, and a railway looking for innovation. What could possibly go wrong?

The answer is that a lot more could have than actually did. Although the structure of BRR has changed completely, and AEA no longer exists as a company, research activity continues in private companies, accompanied by extensive product development in huge corporations and budgets that swamps what BR could afford. “Blue Sky” long term thinking has shifted to universities and there are flourishing relationships that work together throughout the industry. Recently a UK university advised at “mates rates” a heritage railway that I was working with on a serious wheel/rail wear problem, using the latest of modelling and measurement technology. Just one simple example of the industry working together because people make it, whatever the organisation lines on the chart.

So as with many things, to say if the privatised present is better than the na-

tionalised old is difficult. Nevertheless, the world has changed and there are many different ways of solving railway problems. Essentially, railways are a simple device underpinned by a steel wheel on steel rail relationship which is fundamental, with great strengths and significant weaknesses. The laws of physics make these attributes go together. The great strength of the relationship is the low rolling resistance, and the readily available steel, with its workability into both machined wheels and long extruded rail sections. The low rolling resistance is connected to low levels of adhesion, or stickiness, between the surfaces. With this strength comes the ability to have very high trailing loads, with low resistance to rolling giving low energy movement, and low noise levels. The road/tyre comparison is a good illustration, the heaviest trailing loads on our roads today are less than 100 tonnes, some 30 times less than a single loco can manage on rail. The high level of friction between tyre and road is responsible for most of the vehicle noise that plagues motorways or anywhere that there is vehicle speed. The weakness that comes with it for rail is that the low friction level makes stopping distances long, which means for safety there is a big distance between trains, or to put it another way, and as can be observed looking at a busy railway from the air, most of the rail length has no train on it, and capacity is limited. Road vehicles can stop quickly, and as long as the driver is awake, can stop before it hits a vehicle some 2 seconds in front of it.

Those folk who think that autonomous cars will completely take away the rail market for passengers tend to ignore the speed, noise and energy issues, even if we can all be trained to use cars that need no driver, and we can shape our vehicle and road spaces to accommodate the toxic mix of cars and pedestrians that rely on our intelligence to separate now. Rail will still have the load and energy advantage, likely to be significant in cost terms all the while that energy remains expensive. Our efforts to provide green and sustainable energy sources have not yet reduced its price. One day this may be possible, experience suggesting that it may be a century or two, long enough for rail to shape its product and adapt.

Another weakness of the wheel rail relationship is that it takes known metal technology to the limit. The low contact patch area (less than a 5p piece) gives rise to high pressures as all of the acceleration, steering and braking and impact forces are concentrated. High stress is the result and metallurgy has a hard time keeping up with the demand for higher loads, higher speeds, quicker acceleration and better braking to get the trains closer together and improve capacity. This has always been the case, the very first demonstration of a railway in London, the Hyde Park “Puffing Billy” was curtailed when a rail broke. The Hatfield derailment and rolling contact fatigue are the modern symptoms.

So a simple technology in concept has become a specialised and technically



demanding field, needing the technology to match. If you can invent a material with the advantages of steel but twice its wear and crack resistance, and make it for the same price, then fame and fortune awaits! Meanwhile, we need research to make the best of what we have. Our president, Les Dawson, at the 50th Great Dorset Steam Fair in August. He is with his old engine “Antoinette.”  
Photo Karl Trussler

## A Great Contribution from the YEs

John Spokes

Public Running on August Bank Holiday began with foreboding quietness; 2 trains ready on the Ground Level and 4 on the raised track and the vista across Prospect Park broken only by a solitary lady walking a dog.

The RSME Prophets of Doom were in full unison with a powerful rendition of that well known Chorus, “Oh, why do we bother on Bank Holidays”, followed by a sonorous bass solo from one of our more vociferous members of “They - *the Trustees presumably* - always make the same mistake, every year”. But, as if to confound the Gods, with lunches finished and “Neighbours” watched, the Barbarian Hordes descended.

As Track Marshal on this busy Monday, with a few motive power problems on the raised track, I would like to pay my respects to the forces of the Young Engineers who made such a great contribution, very willingly and co-operatively given; from setting-up, guarding and the occasional highly supervised drive.

A highlight was the first airing of Jamie’s beautifully and recently restored 08 diesel, painted in authentic Brunswick Green and very effectively completed with number and works plates. This was put to excellent use in setting-up, track checking, taking carriages and coal to the station area. A spare carriage was positioned in the head-shunt in the ground-level station in anticipation of “peak periods”.

Finally, I remark on Rob Denton and Peter Harrison (not Young Engineers in case you hadn't noticed) who ran their engines, a B1 and Chris', Peter's son's, Simplex, respectively, for the whole afternoon on the raised track. Rob was last man standing or perhaps sitting is more appropriate.



Jamie's newly refurbished Class 08 assists with carriage movements. In the background Marcus prepares the Club's Baldwin

Jamie and Luke transfer coal from the steaming bay to the ground level station. (perhaps a Project for Wednesday would be to build a pukka coal wagon that could be stood on a short section of track in the station area for Running Days?)





Near the end of a good day - Ash brings the Club's Baldwin slowly on shed

Photos and captions

John Spokes

## **Thank you David!**

A big thank you to David Scott who at a recent running day cleaned the entire raised track following contamination that was delaying trains.

## **SPEED LIMITS**

**A reminder that the following limits apply to the tracks as follows during public days**

**Raised track 5 mph throughout**

**Ground level 10 mph on straights and 8 mph on curves.**

**This equates to 2 minutes and 10 seconds lap time for both tracks.**

## **RSME CHRISTMAS LUNCH**

**Wednesday 5<sup>th</sup> December, 12.30 Sindlesham Mill**

**£17.95**

**For further details please see club house noticeboard.**

## A new 00 layout backscene

by George Saffrey

The 00 group has now added a new backscene to the fixed part of the layout in the club house. We've used 3mm High Density Fibreboard from B&Q, primed and painted with household emulsion. The more artistic of us shaded the sky and added clouds while the rest fitted and secured the 8 foot by 2 foot strips. We used quite a lot of velcro, supplementing the self adhesive glue with No More Nails to keep it on the wall. After considering a number of ways of bracing the curved corners we found the board bent nicely to shape secured by velcro against the edge of the adjacent board, saving a lot of weight and tricky woodwork. Scenic strips were Townscene from ...



...Freestone Model Accessories and some existing Peco. The new backscene enhanced the existing scenery - Scott Rixon's Adams tank in a moorland setting.







The old Peco backscene, glued on the new one complements the village models. The new backscene makes the layout lighter and brighter. Note the operators toning T shirt. Photos George Saffrey

## PHOTO ANALYTICS

Where Wolverton Pug shares his encyclopaedic knowledge to photos provided by the editor



Correction to September issue page 10 end of middle para should read  
“But it does show the fragile position the Peaks were in 1980.”

### **Class 08 No. 08784 at Banbury circa 1972**

The pictures show 08784 and an interesting assortment of freight vehicles in Banbury goods yard.

The loco itself is one of the ubiquitous English Electric engined 0-6-0 shunters, of which 1,193 were built between 1952 and 1963. Numbered D3000 to D4192 though Nos 3000 to 3366 were originally numbered 13000-13366. When TOPS was introduced in 1973, they were renumbered into the 08 series. Most were built at Derby and Darlington Works and some at Crewe and Horwich.

However of the 1,193 built, 10 had Crosley engines and 171 had Blackstone. These were all withdrawn between 1967 and 1972 as non-standard.

08784 was originally D3952, built at Derby in April 1960 and delivered new to Old Oak Common. It was transferred to Tyseley, Birmingham in Autumn 1960 and remained allocated there until about 1982 when it spent some time at Willesden but by 1985 it was at Crewe. It became part of EWSs fleet at privatisation, moving on to Toton, where it is still in store there. I believe it has been offered for sale amongst a host of others. I first saw it at Birmingham in November 1968.

Banbury of course was an important junction with the Great Central route to Woodford Halse and the north and there were ironstone workings in the Banbury area. So the yard at Banbury would have been very important at one time. I guess by 1972 the main use for the yard would have been engineers' trains, plus local coal traffic etc. including stabling of traffic en route to or from the WR as the regional boundary between the London Midland and Western Regions was just south of Banbury at Aynho Junction.

Turning to the wagons –there are three standard mineral wagons visible plus a van-fit for general merchandise. The two brake vans are a) to the right of the 08 a standard BR brake van by the look of it.

b) This is more interesting –it is an ex LMS brake van now part of the Civil Engineer's fleet. It is stencilled "CCE LMR" RETURN TO NORTHAMPTON PREFAB DEPOT". This was the engineers pre-assembly depot at Northampton Bridge Street on what was left of the old London and Birmingham Railway route from Blisworth to Peterborough via Wansford, opened in 1845 (part now being the Nene Valley Railway of course). It looks to have been purloined by the traffic department as it is attached to a Presflo cement wagon and a standard mineral wagon. Back in 1972 there were still plenty of unfitted and partially fitted freight trains running and brake vans were at a premium. Yards tended to squirrel them away in corners for their own needs!

Behind the 08 are some 45-ton oil tank wagons, one showing a card attached which will indicate its destination, unless it is defective and bears a cripple card. Unlikely as it is too light to be either green or red and there are at least two vehicles there! There were a couple of regular services from Fawley to the midlands, so they may be something to do with that.



### **Euston 1974-Arrival of Class 86 hauled Pullman**

Both the class 86 locos and the Mark 2 Pullmans were built in 1965/66 as part of the full introduction of electrically hauled services between Euston and Liverpool/Manchester from 18<sup>th</sup> April 1966. According to my copy of the Passenger Timetable Great Britain 6 May 1974 to 4 May 1975. (In those days there was only one major timetable change per year and summer dated trains were included in the main timetable.) the Pullman from Manchester departed at 07.33 for an arrival at Euston of 09.58. It returned in the evening at 17.50 arriving in Manchester at 20.16. The Liverpool Pullman started at 08.04 and arrived in the capital at 10.39 It left Euston in the evening at 18.30 arriving in Liverpool at 21.01. All four services were non-stop, except the up Liverpool which stopped at Watford Junction to set down only at 10.20, but did not stop to pick up on the return!

29 Pullman vehicles were built at Derby for the service. Providing a Pullman service for Liverpool was a new concept, whereas the Manchester service simply replaced the Blue Pullman diesel service from Manchester to St Pancras via Chorlton cum Hardy and Millers' Dale, whose 2x 6 car sets of vehicles went to the Western Region to join their 3x 8 car sets. The Pullman formations serving Manchester and Liverpool were normally 8 cars, though the fleet allowed for two sets of 12 cars plus 5 spare!

The first main change was the withdrawal of the Liverpool Pullman in 1974 As a result by 1977 seven of the cars had been withdrawn as surplus. By the time InterCity had been firmly established, in 1983, the Pullmans were getting very tired. They were put through Wolverton works, refreshed and painted in the new InterCity livery. The Pullman was relaunched with new publicity, on board goodies such as wrapped soap and sachets of smellies etc., plus a menu update. All the vehicles (the 22 surviving) were named after people associated with Manchester.

Two years later in 1985 the Pullman service was being provided by 22 new

build Mark 111b carriages built at Derby and carrying InterCity Livery, Pullman crests and most also named after famous Manchester and Liverpool people. A Pullman service was re-introduced to Liverpool. The 12 remaining Mark 2 Pullmans with blue asbestos insulation were withdrawn at this time and the remaining 10 non-asbestos vehicle went to the Charter Train Unit and were named after English Lakes being launched for charter work as the Lakeland Pullman.

The Cass 25 (25174) was contemporary with the Cass 86 having been built at Derby as D7524 it went new on 1<sup>st</sup> January 1965 to the Nottingham Division under the care of Toton TMD. It remained there until 1972 when it was transferred to Willesden where it remained until 1974 moving on to Cricklewood from where it was condemned in September 1976. It was cut up at Derby in July 1978.

I first saw it at Wellingborough on 14<sup>th</sup> June 1967.

## OCTOBER DIARY

Saturday 6 <sup>th</sup>	Birthday Party	11:00 to 13:30
	<b>B</b> irthday Party	14:30 to 17:00
Sunday 7 <sup>th</sup>	Public Running	13:00 to 16:30
Saturday 13 <sup>th</sup>	Members Running	11:00 onwards
Sunday 14 <sup>th</sup>	Birthday Party	11:00 to 13:30
	Birthday Party	14:30 to 17:00
Monday 15 <sup>th</sup>	Trustees Meeting	19:30
Saturday 20 <sup>th</sup>	Birthday Party	11:00 to 13:30
Sunday 21 <sup>st</sup>	Birthday Party	11:00 to 13:30
Monday 22 <sup>nd</sup>	Special Needs	13:30 to 16:00
Saturday 27 <sup>th</sup>	Young Engineers and Members	11:00 onwards
Sunday 28 <sup>th</sup>	Birthday Party	11:00 to 13:30

Opinions expressed in PROSPECTUS are the personal views of the contributor and cannot be taken as reflecting the views of the club committee or editor.**PR**

**The deadline for the November PROSPECTUS is  
18 October. This is the final date.**

Contributions from all members are greatly welcomed

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

John Billard Old Station House Twyford Reading RG10 9NA

01189 340381

john@jegbillard.plus.com