

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

The Prospectus

September 2016



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Free to members



Midland & Great Northern Railway spandrels at the former station buildings at Cromer . More recently a pub, now that's closed too. 24th August 2016.
Photo John Billard

**DAWSON'S DIARY
ROUTES FOR 61249
NEW BUILDINGS**

**SO YOU WANT TO BUILD OR RUN A LOCOMOTIVE?
MORE HEAVY HAUL ANTICS**

DAWSON'S DIARY

kept by the President

Sunday July 30th Young Engineers steam up was a good one for the members. Nigel Penford ran his Baldwin, Mike Manners had the club loco out for a run. Now all four of the trollies have new bogies fitted they decided to run all four together and have a double headed train with both engines running. With Karl at the front and Nigel leading the train made a good sound up the bank. It was nice to hear the clickety click as they ran around.

Mike Jones has found a snag on his GWR 0-6-0; his engine at times works very well. He thinks he may have found out the problem, a leaky smokebox door. Having tried some mods to the blast pipe etc. he says he will put it back as it was then sort out the door.

Alasdair Milne had a steam test to pass out his modified safety valves. The work fine now. This was on his very nice Dunalsdair 4-4-0 tender loco built from works drawings. Alf for a change was trying out his latest tank he has made. Not too sure what scale it is but it is still very heavy to lift about. It sounds very good. Of course he had to shoot me in the legs!

The Polly Five is coming along well the young lads have now fitted the steam chests etc. I think it's good to see the young members getting involved with the club activities helping out us old ones when asked.

Mike has now fixed the steam brake. It now works fine on the club Baldwin. Karl and Marcus gave the engine a good clean and polish ready for the weekend.

The Fun Day in the park was a very busy day for the RSME members who came up trumps with many locos in the steaming bay ready to cope with the amount of rides given throughout the day. The members manning the stations did a good job. It was a long busy time for everyone. Well done all of you! Marcus, Ash and Tom really did their bit to make it a great day for the RSME. The club Baldwin worked okay. The brakes worked well this time out. Rob Denton brought along his latest loco a Western Warship looking good with nice paintwork and plenty of detail in the cab.

Many thanks to Carol keeping the teapot flowing all day.

Another nice day weather wise for August public running; busy once again for all concerned. It must be mentioned once more that the younger members really have made a great contribution to running these events over the last four days!

PONDERINGS

by 61249

Leaving NSE for the Rolling Stock Leasing Company (Angel – one of the RosCos) was the stage in my career where I stopped managing technical things directly, hence the flavour of these “Ponderings” will inevitably change. I say this so that readers who would like to know how many bolts

there are in a Networker traction drive can go on the internet and find out, rather than plough through this turgid stuff.

Privatisation was, of course, the biggest single change that has happened in my near 40 years full time work on the railway. Very broadly there were three attitudes to it in the form insisted on by the government.

Firstly, there were those employees who firmly believed in public services being owned and operated by the government. Some of them objected to the thought of working for an organisation that made profit, some of them felt for perfectly legitimate moral and ethical opinions that they wanted to work for the government as the body that embodied public good. Some were terrified for their jobs that they saw as at risk in a cut throat competitive world that was alien to them.

At the other extreme there were those who saw only the opportunities. Freedom from government interference, excitement and competition, long term private finance to do lots of good things, and the opportunity to benefit personally and financially from the myriad of different opportunities that would arise.

I think I was in the middle. I was comfortable with change and had moved around the country in engineering and general management changing job pretty well every two years. I was convinced that the trappings of permanence like an office and a defined role were just illusions, we all preserved our jobs by skill and hard work. Nevertheless, I had a family and a mortgage and was concerned about finding I could afford neither. Furthermore, I had no real idea how businesses worked so opportunities were shrouded in mystery with lots of risks not fully understood, except that I had a lot to lose, a good career (so far), travel concessions and a good pension scheme.

Two other strands of thinking affected a lot of the choices I made, and I saw them affect my colleagues too. Firstly we were convinced that our knowledge and experience were essential to run the railway, we believed in the UK railway and wanted it to succeed however difficult that became. Maybe we had a slightly inflated idea as to our indispensability. Secondly those of us privileged to be in senior positions also felt a great deal of responsibility towards those working with us at all levels, and the need for leadership and stability for them, with a great deal of sympathetic guiding to be done through troubled waters.

This thinking guided my approach to the significant opportunities to become a millionaire through railway privatisation. These opportunities came in three ways: -

Route 1

To set up a private business to serve the railway using the people we knew, the skills we had learned and the changed circumstances to get folk we knew to buy our service.

Route 2

To make a management bid to buy the part of the railway business we were in, and take from it the rewards of ownership, such as profit and control.

Route 3

To join an existing private company and help them into railways, taking an ownership position with them, with private sector bonuses and rewards for new business growth.

Over the next decade I considered all three of these, rejected one and failed in the other two. So I am not, and will never be a millionaire, and will never commission a 7 and a quarter inch “Castle” class which would probably have been my first action had it happened to me.

The one I rejected was Route 1. There was an early proposal with a senior colleague to set up a train maintenance company, rent an underutilised BR facility, offer good wages and concentrate on maintaining things that were not being well looked after but were important to the railway, like big yellow machines. A colleague and I considered this together in early days, but rejected it as being very high risk (Risk and reward need to go together and often do), and it would have been seen as opportunism and desertion of a sinking ship. Not a leadership example, just a “me first, blow you jack” approach. We both decided to stick with BR as long as seemed appropriate, and I joined the RoSCo which I knew would be sold early in the process (1995/6). He went on to be a very successful bidder for TOC franchises, and MD of a TOC he successfully bid for.

Route 2 started with the RoSCo train Leasing Company, set up with a significant fleet of trains and contracts with the emerging Train Operating companies to lease them, we had a real and identifiable place in the new regime, and the excitement of getting there from scratch. We could also bid for the company. We had a banker boss who knew how to do these things, and started to have meetings in his front room (we were not allowed to talk about it in work time), in order to move things forward. However, around this time I had a tap on the shoulder in the cafeteria queue which changed my life, and eventually gave a full blown



opportunity to lead a management buy-out of another part of the railway. More of this later.

Route 3 came about some years later, not entirely by choice as it happens.

Back to the early days of Angel Trains next month, the only picture of a young lady in my railway collection is previous page and shows her pride at the unveiling of our company logo and our new offices up the road from King's Cross. We did not use expensive brand consultants but offered a prize in a competition at my daughter's school. It worked for us and lasted until the company changed hands some 10 years later.

NEW PAVING AT THE CLUB

Work being undertaken on 27 July 2016 by Nigel Penford, Roger Pattie and Mike Manners



All photos by Andy Day

George Saffrey writes:
Here are some photos of the new station building for the club 00 layout, as built by the Tuesday 00 group. They are made from Metcalfe card kits re arranged and modified to suit the location.



The buildings replace the existing large station building on the fixed part of the layout for members running sessions. Thanks to Alf Cusworth for the main parts of the war memorial.

NEW BUILDINGS

Photos
George Saffrey



Notes From Trustees Meeting

Members may use a petty cash box where small value purchases have been made on behalf of the club. The petty cash box will contain a maximum of £15 and a voucher book. If you require reimbursing for purchases less than £15 please fill out a petty cash voucher and place it in the box with receipts and remove the appropriate amount of cash.

During Public Running members are asked not to congregate on or around the platforms especially at the point where the raised level tracks converge. This practise is causing communication and safety issues for platform staff.

Loco drivers are asked to ensure that they wear suitable clothing and shoes during Public Running. This is to reduce the risk of injury to yourself from hot ash landing on bare skin and injury to feet.

SO YOU WANT TO BUILD, OR RUN A LOCOMOTIVE?

by David Scott

Some time ago our Secretary hinted about doing a Hints and Tips section so here with a few from me!

Building? Yes, choose one that is within your skill range, budget and importantly decent drawings and instructions if you can get them. From my little list comes a few that could be missed! Big Prairie tank and Bulldog? Lack of interest from the supplier... No laser cut parts, (Malcolm High does some now!) very complicated and problems with the valve gear. Doing a Prairies Joggle frames outside an Engineering works, and modified drawings to include a hole that you then discover by crawling about under one at Didcot, difficult!

Something impressive but doable? Here my list includes the re done Pansy in 5-inch gauge. As there is a comprehensive list of laser cut and formed parts, now being taken over by Steam Workshop with some revised prices, I was told at Thornbury??

And steaming in having seen a lovely one in Brighton over the weekend (Sharing a workshop with now my Class 2 chassis) and having watched a faultless performance at Yeovil many years ago? A 4F in 3 ½... You get a shorter tender in a smaller scale, Easy to move, and painting one is easy as long as it is black!

In full size they were not all that well finished so good all round.

SO YOU WISH TO BUILD ONE.

Marking out accurately? First, clean your metal, and lighter fluid works well to remove oil, stick down some peel off stationary labels in white. You can mark the first hole using a craft knife and callipers to score the middle if you are drilling say a square bar. Then using the fine punch find the cross and mark it delicately, I did try this with my eyes shut so it does work, the punch finding the right location and not skidding over the metal as often happens. Set your callipers and mark off more holes along, or cut to size by the last line. Then go along with the centre punch and drill.

Drilling. Fills some with dread as the last one of a hun 'dred' holes is done and the drill bit wanders.

If you start off with a smaller hole, check its position as a young dimple and with a hand drill you can move it over by drilling at an angle towards where it should be. If this fails, mark out from the other side and drill from there. (Or avoid a locomotive with known large number of scale rivets in perfect lines).

A long drill? Yes, now if you use a short one like a jobber as they are called they break easily going in by hand. 1/16 3/32/ 5/32 etc So get some 18 inch lengths of 1/4 or 6 mm mild steel rods, face off, centre drill and drill for each size in the lathe. Clean up the drills and silver solder the shanks into the ends. Polish the rods and drill into your brake hangers, guard irons, injector brackets, step rivets etc. It seems that by holding the rod and letting it rotate steadily in your other hand avoids breakage.

De-burring them. Yes, there are little tools which are great but here again the cordless drill/driver comes into its own using a slightly backed off drill bit towards a flat angle at the cutting face slightly larger than the hole you are doing. All you want is a scraping not for it to snatch or dig into the work. Also good for non-ferrous metals, copper being the worst for this.

Tap holder stand. Now after you have had one of these for a while they almost become like a prayer wheel found in some exotic parts of China (not yet visited) and a quick rotate and choice of last tapped hole*. Seems to save many broken taps. An extended long handle tap holder has a similar effect.

*Taps love to break in the last hole!

Set up a production line. Many of us just have the lathe so are always swapping from one chuck to the other and back via the vertical slide on our many jobs. So line up several of our projects and do them all on various settings. Say cutting slots for forks for example. These could be done in the tool holder at a push. If you are doing a simple engine like a Sweet Pea a built up fork is very easy and not out of place on a quarry locomotive. (Guilty as charged, on number of projects currently in a getting smaller workshop?)

Another favourite just before you are asked to help fold a sheet off the line, is **cleaning up spokes in cast iron.** One of the best I have found is the rod tile cutting saw blade. Poke it through, tighten the hacksaw frame, and turn the wheel round the triangle getting rid of the flash. I like to use a whiteboard behind the vice to check and to get more light. A white primer spray dusted

over will pick up any high spots, I ran out and used filler primer yellow. (It does dry faster though!) You can get jigsaw blades for cutting tiles, and these are good for finer detail on hard cast iron! Small mole or vice grips hold them nicely.

I like to get the front of the wheel running true, as this is what we all see and could be the butt of jokes about when she runs. Just a clean-up of the flange and some of the tread. Swap to the 3 jaw and turn a register on the back all at the same diameter and depth, face off. Do turn the flange and bore out, one after the other for concentricity. Once on the axle (which has been centre drilled) a final skim to diameter each side using a centre. At of course at the same settings.

Turning top hats? Yes, most lathe work seems to involve turning this shape for bushes and bearings, wheels, buffer heads, various pins etc. Now there are two items on the lathe I now can't do without. One is the rear parting tool which for cutting off stainless steel fire bar spacers all the same size becomes easy having set the width with the top slide of course, makes them a pleasure. The other is a multi-stop 4 position barrel at the end of the cross slide. Now if I was making one in evening class they would suspect me of making Colt 45 parts. Not 4500 Prairie assisted parts which gives you an idea of its shape etc. Knurled of course. Turn a test piece, screw out the M6 studding to touch the slide. Go in to the second size, set the screw, the third size and the fourth is the facing off or another setting.

Motivation. Yes, get something together that resembles your engine early on, wheels on frames, saddle and smoke-box, and of course the chimney. Turned or unturned. Have someone visit occasionally to check on progress, and of course visit them and check on theirs to boost.

A building stand. Even a small locomotive gets heavier as it gets built so even a simple trolley will help. I have seen a large tray that slides on a bench like a fiddle yard, to a rotating holder based on fitting the holders into buffer sockets!! (My next project?) My Hunslet relied on the drawbar slots to hold it.

Filing buttons. These are so simple to make and use and after several sessions, you will have a collection to round the ends to a polish off all your rod sizes and coupling rod ends. The clamp in the photo holds it all together, just hold in the vice and file round, swap to emery cloth then polish! These make the production a pleasure and it is impossible to file too much off.

NOTES FROM THE STEAMING BAYS OVER THE PAST YEAR OR SO

When relaxing away from the workshop, make notes like a simple Haynes Manual on the **common sizes of bolts** that need removing for access to things. Then assemble a specific toolbox for that locomotive which also houses all the boiler testing plugs which have been marked. Have a **spare water gauge glass** cut and ready with new O rings, blowdown spanner etc.

On assembly do make removal of items like water pumps easy and accessible. Slotted screws are difficult when they are jammed between a boiler and a set of frames. Allen type bolts into threaded holes spring to mind, also try and imagine trying to do nuts up in said position. Stainless and get a 6mm ratchet spanner and a hex bit for removing it.

I am planning a **double plunger water pump, or pumps**, set at 180 degrees so that it does not surge, pushes a smaller amount in each time, and comes off as a unit for servicing. (Just blame the set of Paddington drawings for the inspiration currently being reduced to 5 inch gauge!

Call me lazy, but I now have a passion for double acting water pumps of ample size hidden. With a new position now to be found somewhere on a British Rail Standard 3 tender? With the immortal words of Ivatt and Stanier of “**It must be get at able**”. I can't bring myself to make a removable hatch on the rear flat tender!

Mine use stock material and a bit of silver soldering! (See photo of the back of the Hunslet)

It was a **Grate idea** in the workshop? Make several, always keep them in the car with spare dump pins, and have them mounted on stainless studding so that in an idle moment swap the centre hotter getting worn out bars for the outside ones. Like we used to with wheels on cars. Also make notes on which coal burns best on the spacing etc. (Rosebud anyone? The grate not the film. just add one for a try)

Moving her? I once spent a wonderful afternoon looking at a Bulldog model. Well, that was once we had got the two parts out of the boxes. A lovely model and pre-Keith Wilson. They were held together with rods through tiny holes with wing nuts. I was tempted to have a game of Jack Straws at the end there were so many of them. Keep the boxes simple and there is a hint from the old sewing machine box, where the base sits in the car. The model is rolled onto it, clamped down, and the light box toggle clamped over. This is

mostly for protection and to keep eyes from seeing what you have got. Air holes and notices of DANGEROUS PET WITHIN would keep her safe in the most run down of neighbourhoods on a cool day!

More hints and tips to follow, anyone?



Left: Wheel fettling hint



All photos David Scott

Above: Cross slide stops

Below: Loco stand with
Hunslet and Terrier be-
low.



Right:
Pump and filing buttons.



WOLVERTON PUG

More Heavy Haul antics and a mysterious place in Scotland

It was during the foot and mouth outbreak in 2001 that Heavy Haul had was asked by a potential customer about a site in Leicestershire at a place called Swadlincote. This was a closed colliery site which had already been cleared. There was still a rail connection about three quarters of a mile long terminating in some sidings and a loading area just short of a road overbridge which led to the colliery site. Well, it had been raining fairly incessantly for several weeks. The route under the bridge was flooded. At the other side the levelled land was little short of the Somme. I was wearing heavy duty steel capped boots, and fortunately the water and mud were not so deep so as overwhelm my footwear. However, the trousers I was wearing, albeit fairly old, were soon splattered in what appeared to be chalk based mud. As it dried out it became ever more obvious.

We had run the gauntlet somewhat as the colliery railway was gated at the point it joined the national network on the line from Burton on Trent to Leicester, and affixed to the gate was a notice which read "Keep out-Foot and Mouth Disease". The line ran through farmland and was obviously 'off limits' during the outbreak. Needless to say we stayed on the permanent way and no body challenged us.

After examining the site we said farewell to the potential customer and John White and I set off to find a bite to eat. Ashby de la Zouch was the nearest reasonable sized place and we found a suitable sandwich shop. Now John had a wicked sense of humour, probably because he started railway life as a second man then a driver.

I had almost forgotten about the state of my trousers, when before any one could say anything else he announced to the shop assistant " I must apologise for my friend, he's been chasing sheep!". It was bad enough wondering if we were going to be challenged by a shot gun waving farmer without facing this embarrassment!

Another trip took me to Llantrissant former junction on the South Wales Main Line between Cardiff and Bridgend with the Commercial Manager for heavy Haul. He was negotiating a contract for unloading aggregates at various sites in South Wales. There were extensive sidings at Llantrissant formerly for handling the huge amount of coal traffic from the valley lines. Most of the sidings were heavily overgrown. The only road access that would be suitable for small lorries was a private lane that led from the yard, alongside the main line, to a gate onto the public road. The access was fenced off and there was another gate at the yard end. The Railtrack contact for Railtrack Western Zone property issues was a very helpful chap called Geoff Williams. He made some enquiries regarding this access. David the Commercial Manager, who was Welsh and had his ear to the ground had heard on the grapevine that it was owned by some local transport firm. They would not be minded to grant

access to the yard. Geoff established that there was a local inspector, since retired, who could remember the route being used by the railway for access over a good number of years. If this was so and providing it had been used within, I think, the last 12 years, the rights would still apply. As there was no documentation to this effect it would mean obtaining a sworn affidavit from said inspector.

This was duly obtained and David ran his first train of aggregates into the yard to the eternal joy of the customer.

We had a problem at Wymondham in Norfolk, when there was a need to unload some aggregate at the siding which ran behind the station. Whilst it was simple for me to obtain a licence from Railtrack for a sensible sum, we only managed to run one train because the aggregates lorries had to run through a built up area and the locals complained and the Council backed them. Win some, lose some.

The Railway (per se) i.e. the transfer of title to Railtrack (Network Rail) and the Freight Operating Companies (The Passenger Franchised Operators do not own any former Railway land. They lease the stations they use and certain maintenance depots), brought with it the rights of Statutory Undertakers. These were the original bodies comprising the Railway companies, Gas, Water and Electricity companies, Docks and Harbour Boards, Drainage Boards, The General Post Office, even Airport Authorities etc. These powers allow "Permitted Development on their Operational Land, required in connection with the movement of traffic by rail". Which means small buildings and loading points can be erected at yards and sidings to facilitate new freight flows. This was enormously helpful in getting new traffic flows up and running quickly. However life gets interesting with regard to the former railway land left in the ownership of the British Railways Board Residuary Ltd.. These were all the land considered no longer required for railway use and should be sold off as soon as possible. It includes old abandoned branch lines, tunnels viaducts, embankments etc. But some of the sites were old goods yards and a number still had track on them. Occasionally the Heavy Haul boys would come up with a new enquiry and one of these sites would be suitable for a potential customer's needs. There was not too much problem apart from Railtrack's phenomenal charges for reconnecting the site to the Network. But if the site needed any buildings it got difficult and we needed to visit a learned QC in chambers at Chancery Lane to obtain an opinion on the Statutory rights, if any on this BRB land in limbo.

When we went to see him, Robin Purchase QC produced several vast tomes of Railway and Planning legislation, which included such eclectic documents as The Railway Clauses Consolidation Act 1845, which although amended was still a Statutory Instrument. It seemed at the end of quoting clauses from these various documents including all the Railway Acts from 1948, 1962, 1968 and 1993, that there was a time limit on what could be described as Operational Railway Land if it was now disused and particularly if the site had

been used for some non railway purpose in the interim.

All good stuff.

Scotland is an interesting case because it is one of the few places where aggregates are not dug. Heavy Haul's interest was therefore confined to cement, waste, and coal. The coal either imported at Hunterston or obtained from open cast sites. During one of my visits to Scotland with Pat Lewarne, looking for suitable sites with rail connected sidings, we arrived at this mysterious place at Ardeer on the line from Kilwinning to Largs. The first thing that struck me was the enormous size of the site, which stretched as far as could be seen from the rail entrance gate. It was dotted with various derelict and weird looking buildings and structures. Not only that but it was heavily overgrown and a lot of the extensive sidings disappeared into thick undergrowth, mostly gorse in flower. But the real mystery was the track. It was held together by steel cross braces and straps every 12 inches or so. I had never seen the like of it before or since.

Suffice to say this was the 100-acre site built in 1871 by Nobel for the production of dynamite. It supplied armaments for both World Wars and became part of ICI in 1926. At one time it was the largest explosives factory in the world employing 13,000 people. The strange structures on the site comprising blast walls were built to prevent an explosion in one part of the complex setting off chain reactions elsewhere.

It seems the site died a long lingering death, with parts closing down and being abandoned over a long period of time. There is still a small presence on the site but it is no longer rail served.

I have not had a definitive explanation for the track set up but the best assumption is that it was in order to ensure stability. Bearing in mind the site lies between the River Garnock Estuary and the West Coast of Scotland and ground conditions may be more unstable than some sites, there was the need to ensure against the risk of derailment of vehicles conveying explosives!
(To be continued)



Left: The access to the Swadlincote development site.
Above: The siding at the back of Wymondum station.



Left: The lane leading into LLantrissant yard



Right: The railway sidings at Swadlincote.

All photos WP



Left: Track connection to Nobel's works at Ardeer



Right: Ardeer works sidings. Note the track-work.

DIARY

September 2016

Saturday	3rd	Birthday parties	11.00-13.30 14.30-17.00
Sunday	4th	Public running	13.30-17.00
Tuesday	6th	00 gauge	
Saturday	10th	Club running	10.30
Sunday	11th	Birthday parties	11.00-13.30 14.30-17.00
Monday	12th	Trustees meeting	
Saturday	17th	Birthday party	14.30-17.00
Tuesday	20th	00 gauge DCC	
Saturday	24th	Birthday parties	11.00-13.30 14.30-17.00
Sunday	25th	Birthday party	14.30-17.00
Friday	30th	Young engineers	18.00-20.00

October 2016

Saturday	1st`	Young Engineers	10.30-13.30
		Club running	13.30
Sunday	2nd	Public running	13.30
Tuesday	4th	00 gauge	
Saturday	8th	Club running	
Sunday	9th	Birthday parties	11.00-13.30 14.30-17.00
Monday	10th	Trustees meeting	
Saturday	15th	Birthday party	11.00-13.30
Sunday	16th`	Birthday party	14.30-17.00
Tuesday	18th	00 gauge DCC	
Friday	28th	Young Engineers	18.00-20.00
Saturday	29th	Young Engineers	10.30-13.30
		Club running	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.

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

Contributions from all members are greatly welcomed

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

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