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The News Sheet

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FROM THE CHAIR

Firstly, may I say that I am very pleased, and relieved, to inform you that Nick Griffin has agreed to become our next News Sheet Editor. Nick's interests are spread over both our sites, having an involvement in the HO layout, as well as the larger scale locomotives. He will welcome 'copy' from any members, and can be reached primarily via email. Thank you Nick for taking on this role, which is so vital to our Society.

May I offer the Society's thanks to Nick Rudoe for all his contributions to the Society in general, and especially for the editorship of our News Sheet. A job well done. My personal thanks to you.

At Bank Holidays, as we are members of both the National Trust and the English Heritage, Jan and I take ourselves off to see perhaps one of England's stately homes. If we can combine these visits to a railway as well, more is the pleasure. We have been to Audley End and Quainton for instance. This year we decided that we would look in at 'The Boot' Fun Day. As you can see from the photographs in the September News Sheet, it was a good active fun day and particularly so for the Society which provided much of the entertainment. Jim MacDonald with his 'Sweet Pea', Tim Watson and Brian Baker with their engines, and of course, Laurie, with the fire engine. There was plenty of additional support from several Society members. Thanks chaps for your efforts to make 'The Boot' day go so well.

Saturday, 6 September saw more activities at Colney Heath in the form of a 'Polly' day organised by David Burman, the Chairman of the Polly Owners Club. Unfortunately, due no doubt to the extremely negative weather forecasts for the weekend, only three Pollys were in steam. As it turned out, the rain held off until late afternoon and all who attended, plus the Society supporters, had an excellent day. Andy Clarke and his wife, owner of Polly Model Engineering, came along to support David and his friends. Well done to you all.

What a gem Vice Chairman Mike is to the Society, organising first class General Meetings. The last two have been the 'tops' in inviting Noel Shelley to give us firstly the theory and then a practical demonstration. Unfortunately, I missed the first, but the second, the demonstration, took place at Colney Heath in heavy rain under the Ground Level Railway canopy. Around 40 members and visitors from St Albans SME watched Noel produce a bronze plaque for NLSME, building the moulds from a pattern and then casting the finished item. I now have the plaque on behalf of the Society and am charged with painting it in an appropriate colour!!! It will be done in due course. Well done Mike and of course Noel and his helper.

A letter was sent to the Society from the Barnet Council re the HQ lease. This was addressed to the HQ building, but it could not be delivered (naturally). It is to be redirected to me. I expect to receive it before the end of September.

David Harris

Treasurer's Report

For a few weeks the Treasurer's work has been on the back burner, whilst he and his good lady took Rob Roy and the V3 on holiday to Germany for a taste of German hospitality at Sindelfingen nr. Stuttgart for the DBC-S International Steam meeting. Both had a good time on this extensive ground level railway, over 45 km being run over the three days. Many ideas were gleaned from the DBC-S's latest projects, which may give us



Anthony Gormley, German style, in the Bavarian Railway Museum in Nordlingen! **Photo:** Mike Foreman

food for thought for our future developments. Finally, I took the V3 to Ascot for the recent M.E. Exhibition to run on the Sinsheim track, all 2.5km of it, brought over from Germany and built in a day alongside the racecourse, amazing and very interesting to drive on.

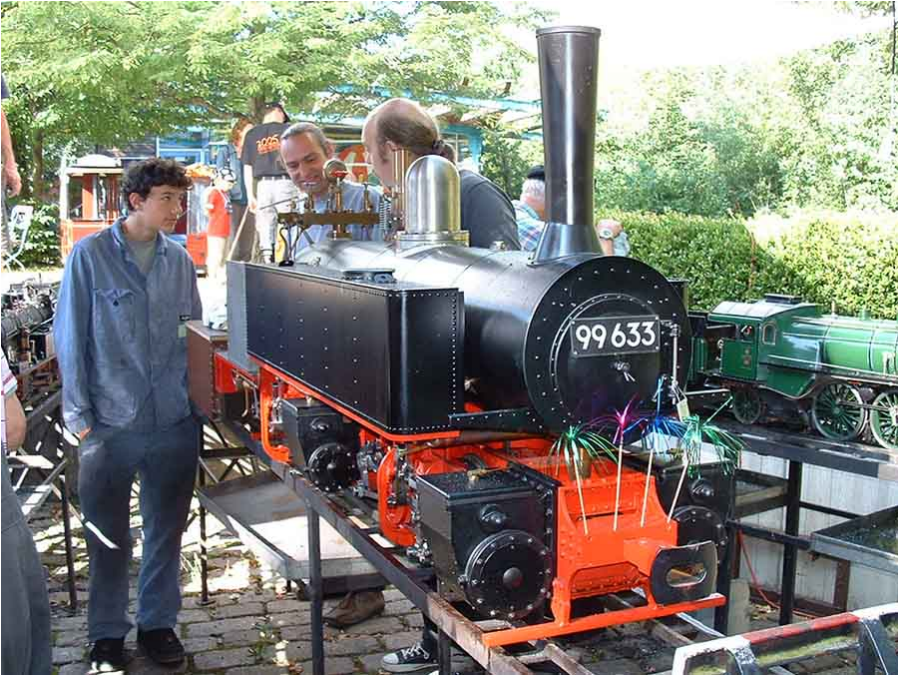
Back home our teams of hard workers have continued with their labours raising funds for our future winter projects, whatever they may be. We must of course bear in mind the cloud on the horizon of how much LBB will be willing to accept as a rent increase for HQ, but I am sure that our Council representatives will during the negotiations achieve a satisfactory outcome.

No new members were elected at the last Council Meeting, but I would ask members to amend their Name & Address list for Adrian and Ian Reddish, who are now located in deepest Suffolk:-

This is the last issue of the News Sheet to be edited by Nick Rudoe and I would like to thank him for his understanding over the months when my 'copy' has arrived after the published deadline. Thanks, the News Sheets have been a pleasure to read and you have done a grand job.

Mike Foreman

Cover picture: Popular highlights of activity on the 2.5km Sinsheim track at Ascot for this year's Model Engineer Exhibition included runs made by Tim Coles at the controls of his 5in. gauge gas turbine powered locomotive. Tim's passenger, Jerry Burchell, is building his own 5" GT electric loco, similar to Tim's GT3. **M Chrisp**



An 0-4-0/0.4.0T Mallet compound in 7¼in. gauge, as seen at Sindelfingen, Germany. The boiler is all stainless steel.

Photo: Mike Foreman

SITE MANAGER'S REPORT

A new survey has been carried out on the Colney Heath site, which reveals that a number of areas need a good clear out - workshop, behind workshop, behind the coach etc. This survey will be discussed at the forthcoming TSC meeting to decide on appropriate actions. I am pleased to report that work has started on the car park roadways, using road scalplings. The first section looks good.

The proposed 'Operating Procedures' were discussed at the Council meeting on 15 September 2008, with some amendments. The final document will be reviewed at the October Council meeting.

David Harris

The September General Meeting by OMAH Mk 2

(All photos by Mike Chrisp)

“You must be barking mad, going out on a night like this!” Phrases of that ilk must have been uttered by wives, partners and mistresses as almost fifty cognoscenti of the Bedford, St Albans and North London Model Engineering Societies headed for Colney Heath. The reason for this Lemming like dash through wind and rain was to witness a most wonderful demonstration of casting skills.

Mike Chrisp briefly welcomed us and introduced Noel Shelley. We were meeting in the partly-roofed lower station at Tyttenhanger which had been thoughtfully prepared for the occasion by Laurie Steers with flood lights and work bench. Many members were standing beneath umbrellas in the pouring rain to witness the event - rather like the shepherds looking in on the stable at the nativity during a monsoon.

Noel needed no introduction because many members had already attended his expertly presented lecture on casting at Headquarters. Now it was time for Noel to put into practice the skills we had learnt at his feet a few weeks ago. With no more ado we saw *Baby*, the furnace made from an old Creda Debonair spin dryer, Hoover parts and sophisticated semiconductor control. The propane gas cylinder was next with its regulator and gauges for bottle and line pressures. Noel explained that he was using a full cylinder of propane because a part-filled one could easily freeze up while in use thereby reducing the pressure; when liquid propane evaporates to gas it requires its latent heat of evaporation to do so, hence the freezing of the container. We saw the clay graphite crucible which was proprietary and upon which depended the success of the casting operation.



Noel adjusts the gas flow to his air-blown, propane-fired furnace.

Now it was down to work. The pattern for the evening was a plate carrying the logo *North London Society of Model Engineers*. The first trade secret was that the words had been assembled ten minutes before the meeting, using double sided sticky tape and standard foundry letters. The pattern was placed on a board, the cope part of the mould lowered over it and the pattern and board dusted with parting powder. At this point I should assure wives that if talc mysteriously disappears from their dressing tables in the next few weeks your partner has not become a transvestite, just blame Noel! The fine, dry powder acts as a releasing agent. Mansfield sand was sieved

through a flour strainer onto the pattern and compacted, then more sand added and compacted until the box was full. The top surface was struck off smooth using the back of a power hacksaw blade.

The cope containing the pattern and filled with moulding sand was inverted onto the mould board and the drag located in position on top to receive similar treatment. A steel pin was inserted to provide a runner for the eventual introduction of the molten metal. The runner was tapered at its lower end to restrict the flow just a little so that the distribution of the molten metal to the space previously occupied by the pattern would be continuous, thereby avoiding the possibility of a 'cold shut' forming. Gates were cut with a bit of old Heinz bean tin to allow a steady flow of metal to all parts of the mould cavity. Perhaps those prostate sufferers among us could take a hint.

The pattern was removed meticulously by Noel using another trick of the trade. He attached two suckers confiscated from some unfortunate young budding William Tell's arrows and simply licked them; they seriously stuck to the polished rear surface of the plate so that removing the pattern was child's play after 'rapping' it to enlarge the mould cavity by a few thou and to free it from the sand. Meticulous is a word that should be used here frequently. Were the smallest grain of sand to find its way to the wrong place then the whole job could be ruined. The cope and drag were reassembled and held down with about a hundred pounds weight of lead in the form of two ingots and put to one side.

Now it was *Baby's* turn. The furnace was lit and fed with bits and pieces of old brass plumbing fittings. When Noel thought he had sufficient he turned the gas up to *Regulo* 100 and got the furnace to 1,050°C, as read by his pyrometer. At this juncture it looked like the firebox of a *Sentinel* getting ready to break the land speed record. Noel shut off the gas and using pre-heated tongs, carefully lifted out the crucible with its contents of molten brass. He prepared the molten metal ready to pour by removing the dross from its surface. By means of a snugly fitted pouring shank, pour Noel did; the runner was soon overflowing and the surplus molten metal poured safely into a prepared bed of moulding sand. The crucible was cleaned and returned to the furnace before the mould was carefully broken open and the new casting delivered to face the world - or at least the gathered



The dross having been removed from its surface, molten brass is carefully and steadily poured into the runner.

broken open and the new casting delivered to face the world - or at least the gathered

applauding and wondrous throng.

Mike C thanked Noel profusely for such an excellent and successful demonstration held on such a dirty evening. All hands then retired to the coach where Noel was plied with tea and biscuits by Laurie Steers before departing in search of rather stronger sustenance.

The solidified casting is broken out of the mould, runner and gates removed and the finished plate trimmed and buffed.



NB: The three images that accompany this article are ‘screen grabs’ from a video recording filmed during Noel Shelley’s demonstration. The recording was made in difficult conditions but is a memento of an excellent evening. A copy of this recording is lodged in the Society’s video library collection.

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Three Blackbirds and an Octogenarian

To begin at the beginning. I was 80 on August 31st, peanuts compared to our Venerable Mead but I do feel old! My daughters wanted me to have a bit of a do but I didn’t want any fuss, so my eldest daughter suggested that we went to her house for lunch and the rest of the family would come also. However, Brendan had arranged to have a steam-up at the Three Blackbirds at Flamstead on the 31st and I couldn’t help thinking how much I should like to have gone there but it would have been rather ungrateful. I have no recollection of mentioning my birthday to Brendan but he knew and Pam phoned Jean Chrisp to ask her to contact Julie with a view to changing the venue without letting me know.

Meanwhile, various members were made aware of these Machiavellian goings on and arranged to be in the vicinity of Flamstead. One of them, who shall be nameless, actually asked me, while we were having our Thursday night jar, whether I was going to Brendan’s bash, knowing full well that I was, although I was not yet aware. I said how much I would have liked to but had other arrangements. (I think some of those who were carrying on these underhand activities should be working for MI5; they certainly were better at keeping secrets than some government departments!).

Around Friday before the event I heard that Sarah was suffering from a severe stomach upset but hoped to be OK for Sunday, more plotting. We set out on Sunday, Julie was driving and I thought she was taking an unusual route and as soon as she took the Redbourn road I twigged that we were going to Flamstead but I just thought we were going there for lunch to save Sarah having to cook. When we arrived I was not surprised to see some familiar faces as I made for the bar. But then Brendan shook me vigorously by the hand and pulled me up a pint of Pride on the house and as I turned toward the restaurant end of the pub I discovered a large gaggle of members and wives who sang 'Happy Birthday' as I approached. To say that I was 'gobsmacked' would be somewhat of an understatement, I was quite overcome. I was soon ensconced at a table busily opening cards and prezzies. Pam had laid on an excellent buffet and, as soon as I had consumed a second medicinal pint, I partook of a little nourishment. Jean Chrisp had made a delicious cake and whilst performing the cutting ceremony the company sang 'Happy Birthday' again. I was very touched by the thoughtfulness of Pam and Brendan and all those involved in the conspiracy, plus the warm greetings of all those present.

Thank you all.

Jim Robson

MARINE MUMBLES (Rides Again)

This is going to be a short MM from me this month as I am suffering from fishing net finger, after all that sewing Dave Lawrence and I did with the pond cover. We have sown four lengths together, and with guy ropes have secured them across roughly two thirds of the pond. This is at the far end. All being well, by the time you read this little gem four more lengths will be up and running from the launching pit, to meet up and overlap the first lot. We hope this will put an end to the leaves in the pond syndrome, as they can be removed from the surface net. There may have to be the use of floats if needed. The idea is, when the pond is required for sailing in late autumn, by anyone, the net is pulled back on itself. Any leaves can be pulled off the net at the same time. Well that's the idea. We will regularly remove the leaves to stop a build-up on top.

The Marine Section is hoping to have a pond meeting at HQ for all interested parties in the near future. So see the future News Sheet for details.

Sorry for no pictures this month. All I could offer was Dave Lawrence sewing (not a pretty sight so I left it out).

Before I sign off I would like to thank Nick Rudoe for all his hard work (as this is his last News Sheet) as editor. Anybody who has to edit the ramblings of a mad man (me) needs a rest. Cheers Nick and thanks again.

Peter Stern

Mike's Musings

Track Stewards Rota 2008							
Date	Senior Steward	Track Steward	Track Steward	Track Steward	Track Steward	Tea Steward	
06-Oct	Kieran Crooran	Gavin Lang	John Mills	Richard Esketh	Paul Baxfield	Guy Eileby	Ms Betsy Fenton
12-Oct	Chris Volsden	Graham Brown	Ron Todd	Malcolm Reed	Tim Clementson		Richard Hill
19-Oct	David Harris	Peter Fox	Tony Glemser	Brian Hill	Susan Frith		Matthew Stallard
26-Oct	Terry Baxter	Peter Weale	Ian Buswell	Derek Eldridge	Rai Fenton		Ms Baxter

Had a phone call the other evening from Owen Chapman. Seems like I got it all wrong in last months Musing's (not unusual) regarding Rachael relinquishing her position as Coach Supplies Manager due to the impending arrival of tiny feet. In fact she will only be taking a short break that will probably be covered by buying extra stock.

My apologies to Rachael and to anyone who may have suffered a nervous breakdown due to the thought of not being able to obtain a brew on a Sunday afternoon.

Stop Press.

Just had an 'E' mail from Owen and I hope that he does not mind me taking this opportunity in congratulating them both as Rachael gave birth to a girl at 07.55 on the 21/09/2008; her name is Hannah Elizabeth and once again congratulation to you both..

Whilst on the subject of supplies in the coach: just a gentle reminder to those members using the catering facilities at the Tyttenhanger site that I do not have a problem with the making of tea, but if you do fancy a Kit Kat, Mars Bar or a soft drink etc will you please put the money as per the price list in the cash box; these items should not be regarded as freebies.

On Sat 20th Sept I visited the ME exhibition and had a very enjoyable day despite the reduced size of the exhibition (on one floor only this year). Unfortunately for the future of the exhibition a considerable number of regular traders did not attend such as Warco, Precision Paints, Poly etc, etc. There was also what I perceived to be a reduction in the quantity of competition entries; however those that were entered were of a very high standard. Like our Society, the majority of the Societies that normally attend decided for their own reasons to stay away. Whatever the reasons for the obvious lack of support, my hope is that someone can come up with an answer to stop this decline and to return the exhibition to its place as the UK's premier Model Engineering Exhibition.

Unlike the Model Engineering Exhibition, there wasn't any lack of visitors on the following Sunday at our track; the sun

shone and they came and came and kept coming. Our car park was full, the lane was full and I had to stop visitors from parking around the residential area. I must have sent 20 odd cars up to the church area to park, certainly not my idea of a fun afternoon. You probably think that I'm having a moan. You would be correct as what was probably one of our busiest Sundays just happened to coincide with a lack of stewards. We only had two track stewards plus one tea steward and as has been the case on more than one occasion this year, John Mills stepped in to help in the coach. Unfortunately this meant that they worked all afternoon without a break, my thanks to you all. Although I was made aware by certain members that they would not be able to do their turn as stewards. Whilst fully appreciating that things do crop up in one's personal life which must take precedence over Society matters, I would however remind all members that if you cannot do your stint at stewarding please take on the responsibility of finding a replacement. It is not my job to phone round in an attempt to find a replacement.

Moaning session now finished. What was great to see on that Sunday was the quantity of locos in steam; hope this will be repeated again before the end of the running season.

Forthcoming Loco Section Meetings.

- Friday October 17th:-** Tonight we are privileged in having Mark Miller addressing us on the Restoration and flying of a de Havilland Dragon Rapide. Included in his presentation are shots taken at the recent Flying Legends air show from a cockpit camera looking over his shoulder. Don't forget if you have a friend who would be interested in this subject please bring him/her along to our meeting.
- Friday November 14th:-** Another guest speaker tonight - Tony Earl who will be giving a presentation on the building of the London Underground. **Please be advised that this is the 2nd Friday in the month and not the usual 3rd Friday**
- Friday December 19th:-** Talk by Ian Johnston – By tall ship from Liverpool to the Canaries.
- 2009:-**
- Friday January 16th:-** Members' films, DVD's and videos.
- Friday February 20th:-** Talk by Tony Dunbar – A trip to Train Mountain, USA
- Friday March 20th:-** Meeting to discuss the consequences of public access to the Tyttenhanger site.
- Friday April 17th:-** Work in progress. Should be lots to look at on the

	table, as this is the first Loco Section work in progress meeting for over 12 months.
Friday May 15th: -	T.B.A.
Friday June 19th: -	1 st BBQ of the summer at the track.
Friday July 17th: -	BBQ at the track.
Friday August 14th: -	Last BBQ of the season at the track.

Track Stewards Rota.

Thank you to all those members who have rung me to let me know about changes that they have had to make to their rostered date. So far it seems that most Stewards have turned up to do their stint, thanks. The latest amended version is published this month.

Mike Ruffell.

Loco Section Leader

GENERAL MEETINGS 2008 – FORTHCOMING PROGRAMME by Mike Chrisp

Our General Meetings are normally held 8–10pm at our Legion Way Headquarters in North Finchley unless otherwise indicated. We usually have a raffle – thanks to Peter Davies (donations of suitable prizes appreciated), and refreshments around 9pm - thanks to Ron Thorogood. All profits from meetings go directly to club funds. All members are particularly welcome and we are always pleased to see members' friends and family at any of our General Meetings. I am always keen to see a good turnout at our meetings and look forward to your company.

3 OCTOBER – ON THE TABLE: YOUR WORK IN PROGRESS

Now that summer is over and we have the prospect of lengthening evenings, we may be able to spend some time in our workshops. What are you working on? Work in Progress meetings provide perfect opportunities to show our current project(s) to fellow members and to discuss any technical matters giving us cause for thought. Please don't hesitate if you have something to bring to the meeting. I'd appreciate a call beforehand so I can attempt to bring some form and order to what in the past has always been an informative, instructive and enjoyable evening.

7 NOVEMBER – OUT AND ABOUT WITH OWEN CHAPMAN

Have camera and shovel - will travel! An evening of photographs and reminiscences from our man behind the lens and on the footplate.

5 DECEMBER – PRE-CHRISTMAS SOCIAL

Informal time together with food and drink.

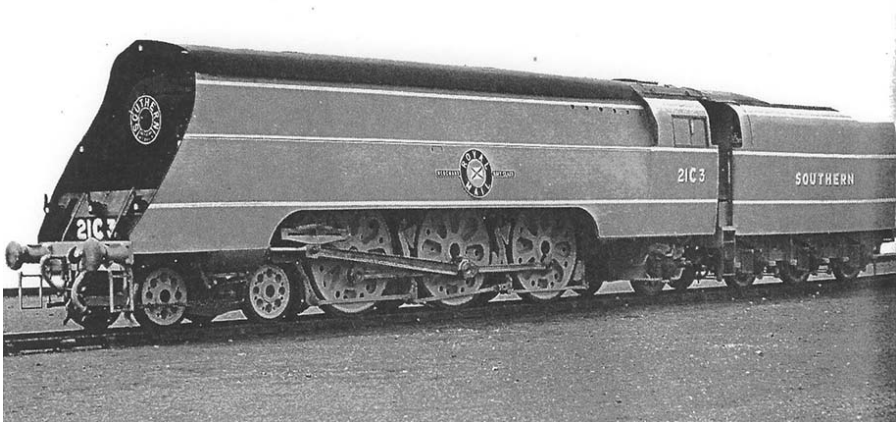
Reflections on the Design of the Merchant Navy Class by Peter Kearon

Explanatory Notes Given by the Designer, Mr O.V.S. Bulleid, Vice-President and Member of the Institution of Mechanical Engineers at a Learned Meeting held on December 14th, 1945.

This lengthy and detailed account, published in the Proceedings of 1946, Vol. 154, sets out, with explanations, his reasons for producing this outstanding class of engines. The following extracts are, of necessity, brief.

Objectives

An engine capable of hauling trains of 600 tons at average speeds of 60mph on short (Dover) runs and 70mph on longer (Exeter) runs.



As-built from Eastleigh Works in September, 1941, the third engine of this class, 21C3 "Royal Mail" already carries modifications.

Boiler. An all-steel boiler with thermic syphons was chosen, partly because of reported good results in France and the USA but also as a means of eliminating electrolytic action which leads to cracking. The boiler was pressed to 2801b/in² with a grate area of 48.5 sq. ft. and within a an overall weight of 35 tons. Stays were all steel, a flexible design around the syphon necks and direct stays of 5/8in.diameter elsewhere. In daily use stay renewal over 141,000 miles averaged 97.4 but renewal in any breaking zone was with monel metal material. Boiler tubes were expanded

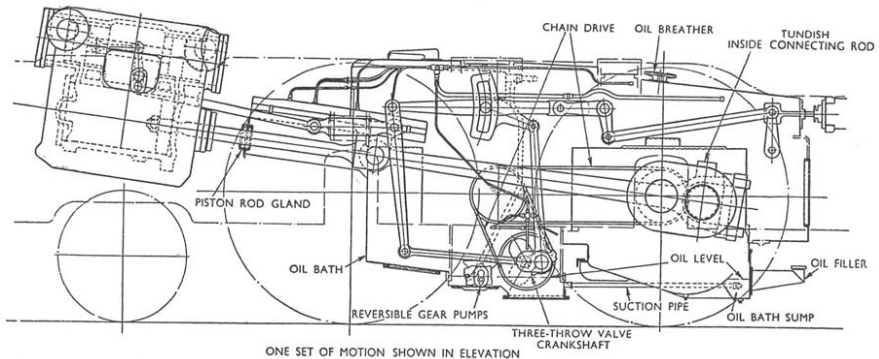
into each tubeplate and beaded with a sealing weld around each tube at the firebox tubeplate end. The first ten boilers were built, and partly designed, by North British, Glasgow.

The firebox door is power-operated by a pedal-controlled cylinder to protect the syphons and firebox plates from sudden changes in temperature between each shovel of coal. It also offers protection in the rare event of a blow-back into the firebox. The brick arch is in three parts well supported by the syphons and being much higher than normal gives increased air space above the fire. The use of a fabricated smokebox gives greater freedom of layout. Steam pipes gave initial problems but were replaced by corrugated pipes, 7inch to the outer cylinders with 6inch branches off both to the centre cylinder. Steam discharge is through five 2-5/8in. nozzles to a single chimney via a 25inch choke. The blower ring is placed around the nozzles discharging into the cavity to prevent a vacuum which could draw in smokebox char.

Cylinders The three cylinder blocks are cast separately for ease of manufacture and machining. All drive the middle coupled wheels but are not in line as the centre cylinder is behind the outside cylinders and higher in the frames. By accepting piston speeds of 2000ft/min. (equivalent to 110 mph) a wheel diameter of 6ft. 2in. is acceptable. (Note BR Britannias and Peppercorn A2s both used this wheel diameter. GW Counties used 6ft. 3in. diameter wheels).

Motion The motion of these engines is described as 'Bulleid'. Valve gear is enclosed and pressure lubricated but the system is complicated by the movement of the crank axle within the frames which entails enclosing the valve gear along with the centre connecting rod, crosshead and slide bar. Glands are arranged to prevent oil leakage along the crank axle as well as the piston and valve rods. The oil pumps are chain driven and supply filtered oil at 20 lb/in² pressure. The sump holds 40 gallons of non-emulsifying oil. No existing valve gear could be accommodated in the limited space available so **'a new valve gear was invented.** The three sets of gear are operated by a three-throw secondary crankshaft which oscillates its quadrant link by a vertical connecting rod pinned to an arm extending backwards from the link. At the same time it reciprocates the foot of the combination lever by a horizontal link pinned to the big end of the vertical connecting rod. The quadrant link operates the upper end of the combination lever in the usual way. The combined motion is conveyed through a plunger working in a guide by the valve rods to the valve operating rocker shaft. The drawing on the next page illustrates the complete system.

The main chain is 11 ft. 8in. long with 118 links while a second chain drives a three-throw crankshaft. A 'sag' of 3 inches in the chain is considered acceptable. The reversing gear is steam powered damped by a substantial hydraulic cylinder. Motion parts are located by circlips - 91 in all. With three cylinders driving the



Layout of the 'Bulleid' valve motion, shown in mid gear.

same axle reciprocating parts require no balancing ; rotating masses are balanced within the wheels. Tests over Barnes Bridge at 78mph gave no disturbing rail loading.

Convention dictates that piston valves must use inside admission steam to protect the glands but this results in restricted exhaust passages. In Bulleid's design the outside admission piston valves giving freer exhaust flow are each driven by a rocker mounted in the exhaust cavity obviating the need for valve spindle glands. Wheels are usually spoked so that at any one time the weight of the engine is carried on just one slender support per wheel. In collaboration with Messrs. Firth, Brown a built-up disc design was produced (the Bulleid, Firth, Brown or BFB). Tyres are of high-tensile magnesium-chromium-molybdenum steel. Attachment to the wheel centre does not use conventional Gibson rings; instead the inside profile of the tyre has lips both sides so that when heated these locate across the width of the wheel centre. To obtain sufficient expansion the tyre must be heated to 450F. - approaching the tempering temperature of 600F. Regulated heating is required.

Clasp brakes are fitted to obviate the heavy side thrust on axleboxes inflicted by single-sided brake application. Among so much amazing novelty it is surprising to find the leading bogie design is that used on "Lord Nelson" -class locomotives. Bulleid had served in companies - the LNER and the SR- which endorsed eight-wheel tenders for their premier engines so it is surprising to find that Bulleid chose a six-wheel layout. But one equipped with windows, good space for fire-irons and a layout aimed at making this space as comfortable as a footplate can be.

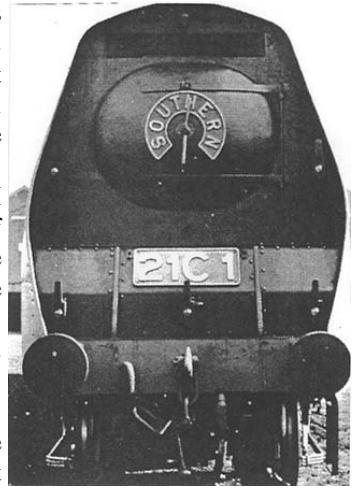
The cab layout was planned to give the driver and fireman dedicated working areas. On the driver's side are the regulator, reverser, brake valve, drain cock lever and the main gauges. The fireman's side controls both injectors, dampers, sand valve and steam heating valve. A steam turbine rated at 500 watts is mounted behind the front

buffer beam and provides power for the identification lights, cabin and gauge lights and importantly illumination for the injector overflows.

Observations

Only a Gresley, Churchward or Stanier could possibly criticize the outstanding work of OVS Bulleid. This so-advanced designer put aside so much accepted thinking and produced a class of engine simply years ahead of contemporary building.

But with the greatest respect there are two areas which, I feel, call for some adverse comment. It was in August, 1943 that I first set eyes on a Merchant Navy-class locomotive; it was at the head of a train waiting departure from Waterloo. I had glimpsed the unimaginable "C"-class 0-6-0's but this new locomotive was utterly different from all previous engines I had ever seen. The air-smoothed casing, the lack of any chimney and the strange wheels set this engine in a different league. The front view with the 'Southern' logo on the smokebox door and the new-fangled 21C1 numberplate in polished brass was so new.



An immediate disappointment appeared when the driver was given the 'right away' which set up a riot of flying rods and wheels but with very little forward movement. Sadly such disgraceful starts were forever a feature of these beautiful engines. Mr Bulleid had put behind him almost everything LNER but he did take with him the so-useless regulator design of that company. Surely he witnessed A3s and V2s struggling to pull away from every start but his wondrous new design was not an iota better. He was old enough to know that Great Western Castles had charged through Gas Works Tunnel without a trace of slip and consequently rolled through Finsbury Park in times never dreamed of by his former company.

Had Mr Bulleid gone cap in hand to Swindon dour, unsmiling Mr Collett may well have given him Works drawings for the 'Swindon' regulator and his dream engine would have been infinitely better. And yet the SR lightweight Pacifics which went to Scotland in the 1948 trials gave hill starts which left the banking engines unable to keep in contact. How can that be explained?

The main problem which troubled these engines was oil leakage - from the axle glands, sump door and to a lesser extent piston and valve rod glands. These were not normal engines which could survive the rough and tumble of usual shed maintenance carried out in grimy conditions often in semi-darkness. A shed fitter I knew in Southampton sheds told me of problems with the sump door joint where

THE Show For Model Engineers



MIDLANDS MODEL ENGINEERING EXHIBITION

**Friday 17th - Tuesday 21st
October 2008** 10am - 5pm daily
Closes at 4pm on final day. Last admission one hour before closing

**Warwickshire
Exhibition
Centre**

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**Engineering
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Exhibition Link Bus from LEAMINGTON SPA RAILWAY STATION

Please note the service is from Leamington Spa this year and NOT Coventry.
Every 30 minutes from Leamington Spa Station to the Exhibition Centre.

For the full timetable please see our website
www.modelengineeringexhibition.co.uk

Fares £2.00 Single £3.50 Return
 There will be no service running on Sunday 19th October.

Ticket Prices	Discount	Full Price
Adult	£8.00	£9.00
Senior Citizen	£7.00	£8.00
Child (5-14 incl.)	£4.00	£5.00
Family Ticket	£20.00	£23.00

2 day passes available - phone for details

Contact details for the Midlands Exhibition:-
 Meridienne Exhibitions Ltd., The Fosse, Fosse Way, Warwicks,
 CV31 1XN ☎ 01926 614101

The September Loco Section Meeting

by Roger Bell

The topic for the evening was a discussion on the interaction between the Ground Level and Raised tracks.

Alan Marshall gave the Third Review of the GLR Signalling to date, which briefly was that four signals have been built and four posts installed. Three sets of signal control units have been built and installation of the conduit is progressing. One rail treadle has been installed in the track and the design does seem strong enough for a 7¼" gauge locomotive, so that is where we are.

The signalling in 'the narrows' was to be button-operated by the driver but this caused confusion so it will now be automatic. Three signals will be interlocked which will ensure that only one train is in the narrows at a time. If three trains converge on 'the narrows' at the same time only one will get the green, and the other trains will be released into the narrows on a timed basis. Alan said that hopefully trains will be able to sail through the narrows with the minimum of interference from the signals.

The Cuckoo loop was discussed next. Alan has many solutions for the signalling here but they are all with drawbacks; he is still working to achieve a near perfect solution.

Line-side route indicators which are fitted to the top of signals will show the driver which way the points are set.

A point detection system needs to be designed which will detect a stuck point due to a stone or twig blocking the movement of the point.

Also a method of point operation is to be designed. The operation could be local or remote, manual or power and if power, electric, air or hydraulic. Operation by power seemed to Alan to be more sensible.

Any future changes to the track layout need to be considered at this stage.

The idea of having a signalman in a box was considered. Alan advised that two signalmen would be needed at a time and that they would need to be properly trained to be able to cope with the job.

Mike Foreman then spoke of building the bridge to carry the mainline over the GLR and that an early start would keep the work momentum up. This prompted many suggestions from the floor a few of which I noted, which were:-

'The final decision on the route has yet to be agreed and needs some serious planning'.

'Nobody has any idea of the work involved to provide a bridge and drawings need to be prepared first'.

'Rather than extend the raised level, the steaming bays ought to be worked on first'.

'As a club we ought to decide what our priorities are and that the steaming bays should be our first priority'.

At this point we watched a short extract from a DVD on 'Gala 2008'. Peter Funk was captured giving his opening address for the official opening of the newly extended GLR; he thanked his team for building a new railway and for rebuilding the club's esteem.

Chris Vousden then spoke of his proposal for the new steaming bays. He has had several meetings with the 'Railway Development Group'. One change to the plan has been to increase the gap between each of the steaming bays. The bays are dedicated to 3½", 5" and 7¼", and there are no multi-gauge bays. Having steamed up in any bay the driver has the choice of ground level or raised track running. There is room for three cars at a time to back up and unload a loco. A turntable and a traverser are included. Three containers will be used for storage; one will be for raised track locos and coaches. The second is for workshop and grass cutting machinery, the third for 7¼" loco storage.

The cost of the project is to be advised; the first phase would be the containers. The existing steaming bays would stay in place as long as possible so as not to hinder running, and the change over from old to new bays would be done over one winter. It is a three-year project.

An offer of a reasonable price was made by one member for supplying a container, which will be followed up.

A show of hands gave a majority for this work to go ahead subject to conditions and cost. Another vote on this will be taken in time.

Mike Ruffell said that the points raised would be passed on to the Tyttenhanger Site Committee meeting the following Monday.

G.L.R. News

Dear ground levellers,

It has been suggested that we run on Halloween night and since the public won't be around we can do as we please. Of course friends and family are always welcome, and if anyone has some thoughts of what to do on the night i.e. food and entertainment please come forward. Perhaps we could let anybody interested and who hasn't driven around the new land have a go of an engine with the owner's blessing. Whilst on the subject of engines how about some of the 7¼" and 5" engines/locos I know are out there are given a dust off and a run on the ground level; it would be great to see some new drivers and engines.

The large pile of scrap timber on top of the hump will be burnt on the evening so if you have any to add to it please do so. Not much to talk about this last month, the track seems to be running without to many faults and I have of course a list of things to put right for the winter working parties.

The club was asked if it would like to pick up some heavy duty ground level rail for free, gratis, nil. We said yes please and I duly arrived at Sue and David Rose's abode in Chalfont St Giles. The next hour was spent loading the truck with what can only be described as smashing stuff, some of which could be earmarked for the replacement GL portable track (VOLENTEERS SOUGHT TO BUILD). David's dad, 86 years young, also helped and we had a nice chat. I was shown around the workshop where David is building a finely engineered 7¼in. Hunslet, and we are looking forward to seeing both David and his loco run on our track, hopefully being the loco's first run.

The last two weekends has seen a strange yellow orb in the sky and in no time at all the G.L boys rattled the tin at our discerning punters on two Sundays running; the result was a healthy profit donated towards the G.L.R. with this in mind I am hoping to refine the raising of donations next season.

The Friday night meeting billed as "the interaction between Mainline and Ground Level" was an interesting meeting until the discussion was put forward about the mainline extension. This seemed to start somewhat of a heated debate between some members present. To put the record straight this mainline development was agreed in principle at the time of the ground level development. The discussion took place and was to be included with the subsequent development of the ground level railway. In particular it was agreed that provision was to be made, when building the G.L.R. on the new land, to allow for future development of the mainline by sighting the proposed crossing of the two ways at the lowest point possible. The railway development group has yet to be informed of any developments with the possible mainline extension; if and when this happens the positive outcome will be put to the

relevant body for approval. Funding would be provided if the majority of members say yes; only this will determine the outcome of the mainline extension. I would like to draw members' attention to the following extract from the April 2006 News Sheet, which relates to the start of these proposals and which are a true record of the discussion at the time:-

“The Extra Loco Section Meeting held on 10 March 2006

by Roger Bell

This meeting was called to present plans for the ground-level and elevated railways and to have an open discussion and make positive decisions for the development of both railways.

After the presentation from the railway development group (RDG) votes were taken on the following points and it was agreed that:-

1. The ground level railway will be extended to loop around the mound and return as a double track.
2. The RDG are to look at the technicalities of laying the ground level track around the mound and establishing the position of a bridge which will carry the raised track over it.
3. The raised track will be extended in the future and the RDG will prepare the layouts for this, for the approval of the membership.”

I would like to take this opportunity to discuss the thoughts of a few members that have hinted there maybe a resurrection of the 44 group, and to this end I have been categorically assured by many former 44 group members that it no longer exists. There may be some disgruntled ex 44 members still around but that's their problem. I personally believe this is the case and ask every one to pull together in view of the coming decisions to be made over the clubhouse rent.

To end on a brighter note: congratulations to Rachel and Owen on the birth of their new baby.

We also have a new editor for the newsletter and whilst I am saddened to see the stepping down of the old, I welcome the new and am looking forward to forming a new relationship. It's been a pleasure to work with Nick Rudoie who has always been so helpful especially in my early days as section leader; thank you Nick for being one of the club's gentleman assets.

Late news: £460 was raised at the funeral of Geoffrey Wren and two guide dogs for the blind have subsequently been adopted.

As ever in the muck

Yours sincerely

P. Funk G.L.R. Section Leader

“Valete” from the Editor

(Valete was a common expression for ‘goodbye’ in Classical Latin, though its literal translation is ‘be well/stay strong’.)

This being my final News Sheet, I would like to say “Thank You” to all my regular contributors and the occasional ones too, who have made my time as Editor so enjoyable. Without you I would not have been able to compile such a series of worthy epistles, not to mention the cornucopia of photographs that have winged their way to my hard disc. I know that I shall suffer withdrawal symptoms in October! My thanks in particular to the Council who decided, in late 2004, that they were happy to allocate Society funds to cover the cost of printing the News Sheet commercially. This was the ‘big step forward’, that enabled me to take the News Sheet into the “Desk-Top Publishing” era, and is the main reason for the format and print quality that we have come to know and love.

My thanks also to those authors in this issue who have mentioned me; I can honestly say that it has been a pleasure to work with everybody. I am certain that in Nick Griffin, who will be taking over from me, the Society has a very capable Editor who will take the News Sheet forward to even greater heights, and I wish him well.

Nick Rudoe

Tyttenhanger Site Committee Meeting, 22 September 2008

The Class 37 battery electric locomotives’ battery has been replaced and the loco is now in service.

One third of the weed killer has now been applied on site and it is working.

Notices will be fitted advising that there will be no public parking on site until the grass recovers.

Surveys of the raised tracks are being carried out to identify tasks for the winter working programme.

A loco section meeting has been arranged for the New Year to discuss the consequences of public access to our site.

The operating procedures for the Colney Heath Site are now awaiting ratification.

A passenger car is on permanent loan to us from SMEE. It is anticipated that it will be looked after and enjoyed by the membership.

📖 Dates for your Diary 📖

Friday 3 October	8.00pm General Meeting; On the Table - work in progress; HQ, Legion Way, North Finchley
Saturday 4 October	Birthday party (engines & stewarding help required)
Saturday 11 October	Birthday party (engines & stewarding help required)
Monday 13 October	8.00pm Council Meeting; HQ, Legion Way, North Finchley
Friday 17 October	8.00pm Loco Section meeting; talk by Mark Miller on the restoration of a de Havilland Dragon Rapide; HQ, North Finchley
Fri/Tues 17 - 21 Oct	Midlands Model Engineering Exhibition; The Fosse, Warwicks.
Friday 24 October	<i>Deadline for copy to Editor for November News Sheet</i>
Friday 24 October	8.00pm Workshop Evening; HQ, Legion Way, North Finchley
Saturday 25 October	Starting at dusk! Halloween evening at Colney Heath
Sunday 26 October	Last public open day at Colney Heath
Monday 27 October	8.00pm Tyttenhanger Site Committee meeting; the coach at Colney Heath
Fri 31 Oct - Sun 2 Nov	NMRA British Region Convention; Yew Lodge Hotel, Kegworth; see www.nmrabr.org.uk/convention.asp for details
Friday 7 November	8.00pm General Meeting; Out and about with Owen Chapman; HQ, Legion Way, North Finchley
Monday 10 November	8.00pm Council Meeting; HQ, Legion Way, North Finchley
Friday 14 November	8.00pm Loco Section meeting; talk by Tony Earl on the building of the London Underground; HQ, Legion Way, North Finchley
Friday 21 November	<i>Deadline for copy to Editor for December News Sheet</i>
Monday 24 November	8.00pm Tyttenhanger Site Committee meeting; the coach at Colney Heath
Friday 28 November	8.00pm Workshop Evening; HQ, Legion Way, North Finchley
Friday 5 December	8.00pm General Meeting; pre-Xmas Social Evening; HQ, Legion Way, North Finchley
Monday 8 December	8.00pm Council Meeting; HQ, Legion Way, North Finchley



Every Wednesday	Garden Railway Section at Colney Heath (11am - 4pm); OO and HO Model Railway Groups and Video Group at HQ (evening)
Every Thursday	Slot Cars Section at HQ (evening)
Every Sunday	Morning working parties at Colney Heath (start 9.00am).

NB: Please remember to notify all meetings, events & exhibitions, in advance, to Owen and Rachael Chapman, who act as Keepers of the Society Calendar and Tyttenhanger Site Events Co-ordinators.