

The Chairman's Notes

Congratulations to Geoff Wren on his 80th Birthday.

When I joined this Society Geoff was one of our leading active members who not only managed to build magnificent locos, but also found the time to take on the roles of Loco Section Leader and Chairman. He was also one of the lynch pins of the working parties in winter.

One of my impressions of Geoff when running at Colney Heath was that he was always very smart and seemed to me to get off his engine after a run cleaner and smarter than I was before I started. I also recall that he used to make more smoke with his pipe than on his engine.

Much of what our Society has these days is due to members like Geoff and on behalf of you all I would like to thank Geoff for his contribution over the years and for many years to come.

With regard to the Society, I succeeded in catching the flu just after Christmas, which I compounded by catching secondary infection of the lungs and eyes and have taken no part in any Society activities since then.

I have now started back at work thus starting the New Year three weeks behind schedule.

I am sure that there will be a report on the ME Exhibition elsewhere but thanks to those who organised our stand and I'm looking forward to the next one.

Don't forget to come along to the Slot Car Section evening at the next General Meeting on Friday 7th Feb.

I wish you all a happy and flu free new year.

John Squire

Marine Mutterings **By Bernard Lambert**

The winter work program is under way and proceeding well. The plan is to create two flat grassy areas, one on the right hand side of the shelter and one behind the 'Chester' seat at the top of the lake. More help is always appreciated and will speed up completion of the tasks. Enjoy the boating.

Treasurer Twittering

Nothing to report this month – finances are ticking over quietly!

You will, all too soon, be getting the usual reminders that subs are due again on 1st April. An increase is on the cards this year – details will be published in due course after your Council has deliberated.

Treasurer Grateful for a Generous Donation

A well wisher who wishes to remain anonymous has donated £200 to the Loco Section.

Our sincere thanks to ‘anonymous’ for this act of kindness, I am sure the money will be spent on something beneficial to the Section.

Bernard Lambert

From the Membership Secretary

Change of Address:

George Moon,

David Morgan,

Bernard Lambert

From the Secretary

An early reminder for everybody is that the AGM is not that far away and I look forward to receiving lots of nominations for the officers and Council members who are essential for the running of the Society!

Also looming on the horizon is the start of the running season on Sunday, 20th April at the track together with the various events, parties, etc., which fill our summer.

I've put up a Year Planner in the coach and shown the same information there. If anybody is planning anything, please let me know, ASAP!

Tony Dunbar

Tytenhanger Gazette

by Roger Bell

December 2002

The December Loco' meeting was a talk with slides on the restoration of 'Battle of Britain' class locomotive 92 Squadron 34081 by Alan Whenman. Alan is Chief Engineer of the Nene Valley Railway and was also Chief Engineer in charge of the restoration of the Locomotive. Alan, like his colleague Charles Young, who assisted with the presentation is also a driver on the Nene Valley Railway. Charles with whom I spoke during the tea break started firing fifteen years ago and has been driving for ten, he has driven many prestige locomotives like 'Flying Scotsman', 'Nigel Gresley' and 'Bahamas' to name a few. He is also a member of the Support Group and on the following Thursday will be on the 11a.m. Waterloo to Winchester train hauled by a 'Black Five. One of his duties will be to check on the lubrication.

One of the first slides Alan described was of '92 Squadron' in its B.R. days working from its home base of Nine Elms up one of the banks near Ramsgate. Dramatic pictures followed of Barry scrap yard in 1976 where some 230 locos were left derelict in rows. Many had been stripped of copper and brass work. Having paid £3500 for the loco it was dragged out and put on a separate line, the tender having been swapped for a better one. Many items were missing but some could be recovered from a shed where more valuable items were stored. The latter days at Barry saw prices rise and £10,000 would be paid for a loco' without a tender.

Having transported the loco to the Nene Valley Railway in 1977 the strip down was started. Snow lay on the ground and two cranes were hired to remove the boiler. The cost of the hire at that time was £100. The lift was shown on the television programme 'About Anglia' which was an advert for the crane company. Other slides followed until all was stripped down to the top of the frames. A company in Letchworth rebuilt the cab; rusting parts of the framework were replaced and new steel panels fitted.

The boiler was shot blast with copper oxide grit at 250mph.; thin metal would erode very quickly. Aluminium paint was applied to the boiler, which is porous, and an orange tinge started to show through. This was wire brushed and a coat of red oxide added. Preservation of cleaned parts is important, as it would be many years before it was fitted.

At that time the loco was standing outside and all the tools, oxy-acetylene equipment etc had to be dragged from the workshop. This was two hours work each day. The loco's trailing truck was used as a wheelbarrow. Fabrication work was applied to the drag box as some 5/8" thick plate had rusted through.

Work on the tender was also started, as they did not want a finished loco without the provision of a tender's coal and water. Bulleid tenders were modified in service as Britannia's with added toolboxes and the like but it was decided to convert it back to the original Southern Railway style. Corrosion is an electrolytic action so a

phosphoric acid based substance (as in 'Genolite') was used as a primer; it was to be another seven years before it received its topcoat.

The tender wheels were made as a round disc with a ring of steel as a tyre. After a few re-turns of the tyre to clean it up they would be replaced. New tyres were fitted but after machining to clean up the faces, due to imperfections the tyres were down to the bottom limit of the tread. The old tyres were sold as scrap.

Some spectacular photographs followed of the loco jacked up in the air, supported at the rear and with jacks amidships, ninety sleepers were used; it looked very precarious and would be the modern day health and safety inspector's nightmare. This was to enable the 6 foot two inch diameter wheels and axles to be rolled out forward from under the chassis. One of the axle boxes had no white metal bearing in it and the face was badly scored, so it must have run hot in service. Each axle box of solid bronze weighed two and a half hundredweight.

Ultrasonic testing was carried out on the boiler and the axles to check for cracks. A white material was coated over an area and any cracks would show as a black line. The keyway came up clear on the axle where the wheels were fitted. New tyres were also fitted to the driving wheels and the axle wheel assembly of some two and a half tons was turned in a lathe, a jig was used to ensure that the six foot two inch diameter wheels were turned to within 0.010" of each other.

The trailing truck was jacked up to remove the axle, this work was done by an ex March Shed fitter who was a real craftsman, wherever slotted countersunk screws were to be found the slots all lined up the same way. His model engineering loco building received the same attention to detail as he made all of his own screws.

The centre driving axle journal bearing face was re scraped using a hand tool that was fitted to and rotated on the journal. A 1/16-inch was cut off the diameter. A chain drove the valve gear from a sprocket on the axle. The chain had ten pitches to the foot and as chain of this pitch was not available it was decided to make new sprockets to suit 1-inch pitch chain, which is a standard pitch. A round disc on the axle acted as a spinner to throw oil off the axle into a cup from where it could drain back into the system. A photograph showed ten men rolling a pair of wheels along the rails ensuring they tracked square. A story was told of a group of apprentices doing the same when they gathered speed away from them and ran into the shed, turned sideways and dropped into the pit.

With seven years into the preservation the chassis was lowered onto the axle boxes using two 45-ton steam cranes, each box was 0.010-inch clear of the horns, one set was fitted at a time. Fingers had to be kept clear. The 25-ton boiler was lowered onto the chassis using a crane with a spreader beam to keep it level. It could have been done without the beam; the balance point is just in front of the firebox.

In the cab, virtually all the parts with the exception of the fire hole doors were manufactured by the Society, this is where membership of the 'Bulleid locomotive preservation association' was helpful as it enabled them to place orders for parts in bulk that they all needed and to reduce costs as well as swapping information with the

other loco restorers. The steam injector was purchased in this way at £1200 although it was not exactly to the same pattern, to have a casting made to the original pattern would have cost £700. There were pipes running everywhere in the cab. Each was bent to suit and nuts with nipples fitted - in itself a long job. The blower was on the driver's side and operated by him. This was safer than ensuring the fireman opened the blower before the regulator was closed. The boiler has a working pressure of 280-p.s.i. and has no dampers, so a situation to avoid would be to run fast into a terminus, brake hard at the last minute such that all the dirty water in the boiler rushes forward to lift the safety valves and blast water and steam up into the roof and take a pane of glass out.

Under the streamlining panels that cover the boiler is a framework that contains the lagging. The locos were prone to 'bonfiring' themselves; oil flung up from the wheels would be absorbed in the lagging and sparks from the brake blocks would set it alight, so some metal guards were fitted to prevent this.

A steam driven electric generator powered the three lamps on the front of the loco. The lamps were made by our club member, John Beesley, for a reasonable price. They would have taken ages to make them themselves and their time was spent better elsewhere.

Eventually the boiler was steam tested and the loco' was finished and went into service. The project had taken twenty-one years and cost £140,000. 25 to 30 members attended regularly out of a membership of 140, (membership now stands at 250). The work was carried out at weekends. Original works drawings were used from the National Railway Museum. Every part of a locomotive was drawn, including the last nut and bolt, but they cost about £10 to £15 each and a set for a 9F would run into thousands of drawings.

A question often asked of Alan is how did he get his mind round such a large project. He said that he would take one part at a time, such as the front bogie and then move on to the next part. If you looked at the overall job you would never start. Some ask 'why did it take so long?' He recounted the time spent on the longitudinal boiler stays, the number of them, and how long each one took and one could understand how the days turned into years. Equally important was the fund raising; they nearly always had the money before they bought material. Loans would have been too expensive. They now have a healthy bank balance which is necessary to finance the future work - something always needs repairing. Each winter, projects are drawn up to keep the loco in good condition. One of them is to fit wind deflectors to the smoke box.

We thanked Alan and Charles for giving us such a superb presentation; especially as Alan had travelled from near Spalding to be with us that evening, I am sure that we all felt a great admiration and respect for them to have seen this enormous project through to the finish. It was an incredible achievement, and for us to be able to meet and talk with them, was a great pleasure.

January 2003

The January meeting was a 'Work in Progress' and for the first time in history, out of the thirty or so present, no one had brought anything along to talk about.

Keith Bartlam who is one of the Tyttenhanger Committee members (this is the new name for the old 'Track Committee'), spoke of the progress that had been made so far at the track, he also ran through a list of work that needs to be done.

It was proposed that a simple questionnaire be posted to members to inquire what subjects we would like to have at meetings in order to raise the numbers attending.

Possibly the lack of work in progress was because no one was making anything. A show of hands proved that the majority had an ongoing project but that several of us had not worked on it for months. One brave soul (anonymity assured) said that years ago one came home from work and the tea was on the table at exactly 6 o'clock, after the meal the man put on his cap and went down to the workshop for a couple of hours. Today's modern wife expects her husband to sit with her whilst she watches 'Coronation Street'. On the same theme, the story was told of an 'agony aunt' who received a letter from a wife complaining of her husband, who regularly spent a couple of hours down the shed, she asked 'what can I do about it', the reply came back 'My Dear, I have letter after letter from womenfolk who would be only too glad to know where their husbands are.'

It seems that whilst many of us do not attend all the meetings possibly we would rather be getting on making something, as on the following Sunday morning despite a heavy frost and sub-zero temperatures there were 31 at the track working party, which as one looks back through the register is a typical figure

The discussion then continued with an insight into the developing boiler manufacture and testing regulations that will soon be in force, this will apply only to boilers made to be sold as new, as opposed to those for ones own use.

When we leave the meetings we all motor home with the warmth, comfort and protection that the car has to offer, but Sam Skuse is often to be seen clad in yellow top heading out into the darkness amongst the night traffic bound for St. Albans, 'how does he do it we asked? It seems that a proper lightweight racing cycle of some twenty pounds with an aluminium frame and Campagnolo components. A typical days club run from St. Albans will cover eighty miles, the group cycle at an average speed of twenty miles an hour. They also have circuits where an attempt is made not to race each other but to beat ones own time over a specific distance like 10, 20 or 100 miles. Sam bought his own frame for and built the cycle up from components bought from cycle shops. The knowledge of which ones to select, was gained from his club, he spoke of the incompatibility of some components to run with others which caused much laughter. It seemed that cycle engineering is every bit as complex as model engineering itself.

‘Work in Progress’

The February Loco Section Meeting

The February meeting on Friday 14th at 8.00pm at HQ will be a ‘Work in Progress’ gathering. To make it a success we need members to bring some item to headquarters that they think will be of interest to the membership. Remember it does not have to be the culmination of a life’s work in model engineering but preferably something small that will be of interest to us and stimulate an exchange from the floor. The item does not have to be of quality of the Cherry Hind standard but of course items like that are welcome! The Club thrives on evenings like this so please come along either as an exhibitor or as a spectator. Welcome.

Ian Johnston.

Letters Page

Thanks to the Society and Council

Recently I was trying to reduce the amount of "interesting" material ranging from engineering to travel articles which I had kept in the knowledge that they might be useful sometime and I came across an article on the Gutteridge Cup written by Tom Luxford in the March 1999 Newsletter.

The cup was to be awarded annually to the member who aided the Society in achieving its aims in the past year. In my term of office as chairman, the award was a subject of great soul searching so I was astonished to note that I had been awarded the Cup in 1964. I had no idea this had happened probably because I had disappeared off the edge of the earth to Watford.

I would now like to take this opportunity to thank the Society for the award and also to thank any surviving members of that year's council.

Yours sincerely,

Les Brooks

Raised Tracks in Ireland

By Bernard Lambert

We all know the advantages of ground level tracks for model railways or to put it the other way round we all know the disadvantages of raised tracks. The raised track is thought by many (but not all) to offer the best riding solution in gauges less than 7.1/4". But with it go the quite difficult problems of introducing pointwork or level crossings. Various Societies have built many ingenious versions of traverser to overcome these problems. So far I am being rather boring as you all know about this subject but a variation on this theme has been brought to my attention. How about a raised track for a full size railway'?

Well, it happened in Ireland around the turn of the century and was called the Listowel and Ballybunnion Railway - it ran between these places. Before you come up with any 'Irish' railway jokes I have to tell you that it was conceived and built by Charles Lartique and Anotole Mallet and these two gentlemen came from France. The idea was to produce a cheap lightweight track system which could be laid on a minimal railbed and be economical in lightly populated rural areas for both goods and passenger traffic. The track consisted of a series of 'A' frames with a single load carrying rail at the apex of the 'A' and a pair of rails lower down on each side of the 'A' to resist the toppling forces. Pointwork did, in fact, consist of a series of rather clever traversers and at least one road crossing was achieved with a double drawbridge arrangement, which carried the road just above the centre rail and which lifted to clear the trains.

Already one begins to wonder whether the advantages of the cheap lightweight track are beginning to disappear but worse is to come when we look at the locomotives and the rolling stock. The locomotives were to all intents and purposes two separate engines mounted, pannier fashion, on either side of a centre backbone housing the load bearing, double flanged driving wheels. They had two boilers and two fireboxes and appeared to be simple single cylinder so there was presumably some linkage between them to make them self starting. The 'engine' towed a 'tender' which carried water and fuel in a similar pannier fashion. How the engine crew shared their duties is a mystery to me. Presumably they lived one either side of the centre division and each had a fire to stoke in addition to their driving activities. The object in the centre top of the illustration is not a third smokebox but a monstrous searchlight. From its size and the fact that there is a 'funnel' on it I assume it was acetylene or, more likely, oil burning. How effective, or indeed how essential, it was is another mystery.

The passenger and goods vehicles were built on similar lines to the engines and passengers sat in two compartments either side of the centre wheel carrying structure and goods loads were also divided between their two side compartments. It all defies belief! One can understand how railway staff managed to load and unload goods from such an arrangement but wonders what the extra labour cost were when compared with loading and unloading conventional wagons. What about bulk goods, were they dumped in equal piles either side of the line? The passenger embarking and disembarking situation is even more baffling. Was there a means of scrambling from one side compartment to the other - this would seem unlikely unless all the passengers were reasonably athletic. Were potential passengers persuaded to stand in equal

numbers on each side of the track when awaiting the arrival of the train? As there was no need for a raised platform how were passengers persuaded to avoid standing too close to the track for their own safety?

Apart from the many detail technical questions on the engines the whole concept seems to produce more problems than solutions. Presumably severe gradients and tight track radii were involved. So far as I know no further systems were ever built which probably sums up the commercial viability of the idea. I don't know the end of the story either. How long did it run? What happened to the locos and other equipment? Do any of you know more about this most unusual railway?

Sandown Park Exhibition and Opportunities

By Donal Corcoran

Happy New Year to you all, I hope that you did not indulge too much over the festive season, and hopefully you got some time in the workshop or to play with one of your toys.

Model Engineer Exhibition

Now for those of you who found the time to visit the Model Engineer Exhibition at Sandown Park after Christmas, you will know that it was a very successful show in a well lit and full finished exhibition hall.

I think that our own Mike Chrisp deserves a big thank you for yet another successful show, as Mike was responsible for arranging some of the best models on display at the show.

The North London stand was well received with Peter MacDonald, being given some advice as to where parts can be found for his and Ian Reddish's Lister Diesel and the LBSC designed Annabel received many interested visitors even though most of them did not believe that she had run on at least three different occasions at Colney Heath towards the end of last season.

Opportunities

The AGM is not too far around the corner and there will be yet another opportunity for you to stand for a position on the Council. It is important to remember that you get out what you put in.

Recipe of the Month

From Rob James

In the world, food is running out: supply can't keep pace with demand. Two thirds of the world's population is undernourished. However there is plenty of scrap metal – e.g. discarded tin cans, white goods, cars, unwanted machinery. What we need is action. CHANGE YOUR DIET.

That old tank loco at the back of your garage... When did it last steam? EAT IT. Start a new vogue. Couldn't you just get into some roast spare boiler barrel with grated sight glass or souffled loose eccentric with boiled regulator (when in season)?

Try this splendid dish.

Casseroled Carbonade of Driving Wheel

Ingredients:

4 driving wheels
4 buffers
1 chimney to grate
1 safety valve
1 expansion link
2 tbs smokebox ash
3 knobs of coal
1 small can of machine oil

Method

- 1) Blanche the driving wheels and buffers in boiling water
- 2) Warm a large casserole dish and grate in the chimney
- 3) Over a vigorous flame, fry quickly the driving wheels and buffers in good quality steam oil... add to the casserole.
- 4) Finely chop the expansion link (or leaf spring if preferred). Sprinkle generously in the dish and add the knobs of coal.
- 5) Warm the small can of machine oil on a low heat. Add the safety valve and gradually stir in the smokebox ash and leave to simmer for 5 minutes
- 6) The driving wheels and buffers should now be ready so add the ingredients to the casserole and place in a preheated oven (gas mark 8) and cook for 2 hours.

Serves 4

The views expressed in this News Sheet are not necessarily
those of the Chairman or Council of the NLSME