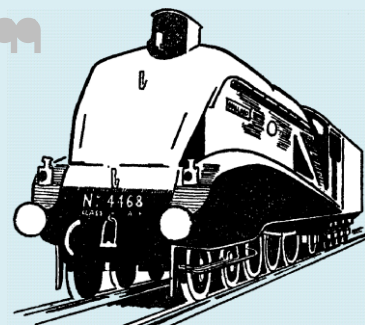


# "THE SILVER JUBILEE"

The Newsletter of the OO Live Steam Club

No.5 September 2013



## Club Members Area goes Live

### Club Members Area

- Contribute Information
  - 3D Drawings
  - Finance
- Build Your Own
- How Does It Work
- How To
- Loco\_Register
- Minutes, Notes & Decisions
- Newsletters
- Spares
- Specialist Tools
- Troubleshooting
- Video Links

To celebrate the 75<sup>th</sup> anniversary of Mallard's World Speed Record on 03<sup>rd</sup> July 2013 the Club Members Area was made available to all Club members. Forum only members have been encouraged to sign up as Club members in order to be able to access this very

useful expanding facility.

It has been populated with various documents to assist Club members to enhance their OO Live Steam experience including Troubleshooting.

It does however rely on the Club membership to continue sending in their experiences of operating and maintaining OO Live Steam so that other members can share & learn from this knowledge.

Do you have any experiences big or small to share with other Club members?

## Coming Up Inside

News from the various Club departments including a full Technical Update

Richard Hallam's Invention – The concluding Part IV article

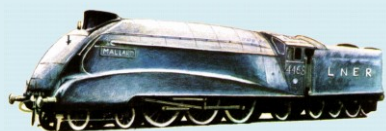
Eric Fenwick's BR Standard Class 8 "Duke of Gloucester"

The Silver Jubilee Train

Recent & Upcoming Club Roadshows

OO Live Steam Technical Tips – No.1 Changing everyday Seals





## General Information

The OO Live Steam Club is dedicated to the collection and operation of the Hornby OO Live Steam range of locomotives.

The name Hornby and the use of the Hornby Live Steam logo are with the kind permission of Hornby Hobbies Limited.

All opinions expressed within this Newsletter are those of the contributors, and any technical information is provided in good faith. The OO Live Steam Club cannot be held legally responsible for any errors whether real or implied.

## Your Committee

### President :

*Richard Hallam*

### Chairman:

*Adrian Campbell*

### Vice Chairman:

*Position Vacant*

### Membership Secretary:

*Chris Oakes*

### Treasurer/Technical

#### Coordinator:

*Jimmy Whitehouse*

### Webmaster:

*Andy Williams*

### Elected Members:

*Eric Fenwick (Technical Committee)*

*George James*

*Michael Marshman*

*Chris Cairns*

## Editorial

Firstly on behalf of the Club including the Committee and all other members I would like to say a big '**Thank You**' to Charles Leekham for all his hard work and precious time spent furthering the aims of the Club as the Vice Chairman, Hornby Liaison Officer & Newsletter Editor. Charles sadly resigned from the Committee recently, but hopefully will continue to take an active part in future Roadshows and share his great artwork with the rest of the membership.

On 05/06 July 2008 the 4 UK-based A4s came together for the first time in preservation to celebrate the 70<sup>th</sup> anniversary of Mallard's World Speed Record at the NRM. For the 75<sup>th</sup> anniversary the seemingly impossible was achieved allowing the 2 North American based A4s to be repatriated 'on loan', giving nearly 140,000 spectators the chance to view all 6 surviving A4s up close at the NRM during July 2013. There will be another Gathering at the NRM in Oct/Nov 2013 although as somewhat predicted Union of South Africa will not be available for 5 of the 14 days. And in February 2014 there will be the Great Goodbye at Shildon prior to the repatriated locomotives returning home to North America.

The Great Gathering Royal Patron HRH The Prince of Wales recently arrived in style when the Royal Train was pulled by 4464 Bittern in steam from the sidings at York onto the turntable in the Great Hall of the NRM.

The Club has a busy schedule of Roadshows this Winter with a good spread geographically of venues, including the only Scottish Roadshow. Please help to support the Club by either taking an active part in a Roadshow, bringing a loco or two to run on the Club layout, visiting the Help & Advice desk, or just to say 'Hello'.

**PS** - The AGM should be at Peterborough on Saturday 19<sup>th</sup> October 2013 – look out for the official notice soon.

*Chris Cairns, Editor*

*Please send all articles, contributions & comments for inclusion in the next newsletter to the Editor at [mail@oolivesteam.com](mailto:mail@oolivesteam.com)*

## Club Contacts

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All membership e-mails – [membership@oolivesteam.com](mailto:membership@oolivesteam.com)

All other e-mails – [mail@oolivesteam.com](mailto:mail@oolivesteam.com)



## Club News

### Chairman's Chat

My main practical input into the OOLSC is the Roadshow and because exhibitions are primarily in autumn to spring and my Planes TV business literally "takes off" in the summer then live steaming at this time of year is a rare luxury.

I have however had the roadshow layout in the garden for some time and had a few running sessions at dusk – wonderful smoke effects in the cool of the evening regularly reminding me that OOLS is perfect in the garden.

I have long thought that during the summer months we could rotate the roadshow around Garden Centres and run local promotions to attract extra visitors to the host location and extra members for us and a 'play' for all. Are there any volunteers happy to put the idea to their local Garden Centre?

Maybe we could have several roadshow layouts each staying in their local area. And maybe if we agreed a standard to join modules together we could join them up for a mega play! (Another idea for another day).

Happy steamings.

Adrian Campbell

### Membership

The Club currently has 360 contactable members.

### Technical Projects

#### *Replacement Locomotive Bodies*



The Club has completed two 3D drawings for replacement bodies, a 4-6-0 GWR 6000 Class & a 4-6-2 LMS Coronation Class. Whilst the Club is still not in a position financially to have a body mould made, the Committee continues to visit Trade Shows to keep apprised of the latest technology in 3D

printing. Both of these designs would require a 3 axle tender chassis to be built.

Despite the myth that Hornby are holding onto the spare bodies for servicing, one Hornby Service Dealer has managed to obtain these bodies which are available through their eBay shop - <http://stores.ebay.co.uk/AC-SLTCARS-AND-TRAINS>

#### *Pre-Heating Controller & Switch Box*



The prototype has been built and has been displayed at previous Roadshows. However it remains untested and requires the associated connecting cable sets to be made up.

## Club News

### Technical Projects (Continued)

#### Hand Held Controller



For those that have not visited a Club Roadshow the 2 circuits of the layout are controlled using advanced hand-held controllers which overcomes the failsafe delays and fixed increments of the original Hornby controller, and have been hand-built by Richard Hallam. Like the Black 5 locomotive, the advanced hand-held controller was never put into production by Hornby. The Club has approached a manufacturer to have these built commercially, but there has been no further progress to date using that route.

Recent discussions have highlighted that we are talking about a small number of controllers actually being built for active Club members with the resultant high unit costs. It was felt that a DIY kit could provide a cheaper and more practical approach, so the Club is looking into the possibility of having the components not available 'off the shelf', the micro switch camshaft and the operating lever, laser cut to a CAD design.



#### Club DVD

A couple of the Aims of the Club include helping members with routine maintenance & cleaning, and advanced maintenance including replacing seals. Video footage of most of the servicing processes (unfortunately not resetting the timing) undertaken by Hornby Customer Care has been taken, and is to be released as a Club DVD. Due to a couple of factors the release of the DVD continues to miss promised deadlines, but we are still prodding the Chairman for an update!

#### Specialist Tools



Eric Fenwick has had a hexagonal ring spanner laser cut to allow easy removal & fitment of the piston end caps. As many members will be aware the Club currently has no funding except for small donations, and the expenses that some (not all) of the Exhibition organisers pay out does not cover all the Club outlays. The Club layout Mark II has been in use for nearly 1 & ½ years now and to keep getting return invitations needs updating (for example Model Rail Scotland operate a policy of normally only inviting an exhibitor for 2 concurrent years followed by a year off to prevent a "same old same old" atmosphere at their exhibition).

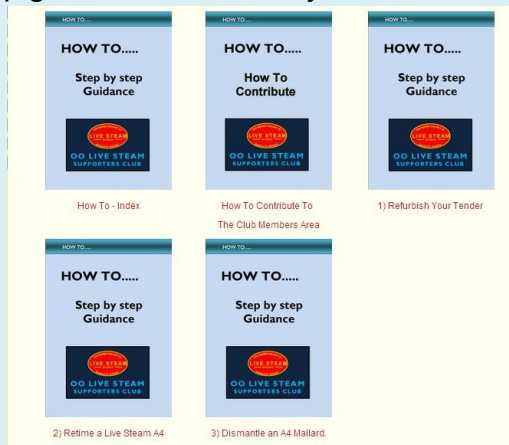
With this in mind here is an **ideal opportunity** for all Club members to support the Club financially whilst membership remains free. All funds generated by the sale of these spanners will go directly to the Club to help fund a new Club layout, and in return you will receive a very useful OO Live Steam maintenance tool.

For further details see the Specialist Tools section in the Club Members Area or contact **Eric** on the Forums.

## Club News

### Club Website

As announced on the front page the single biggest change to the Club website has been the introduction of the Club Members Area. Whilst it has been populated by a variety of very useful documents which have originated from our members worldwide, the single biggest "**Thank You**" must go to Chris Oakes, who not only produced most of the documents from the members initial input into a Club standard 'format', but using feedback from a couple of pre-launch 'guinea pigs' fine tuned the layout, etc.



All Club members should now have access to the Club Members Area, and the access instructions. If not please contact Chris Oakes at [membership@oolivesteam.com](mailto:membership@oolivesteam.com), or see the New Club Members Area Launch announcement in the Forums. Of course what has not been previously highlighted is that you need to also be a Forum member as well as it uses the Forum Sign In facility to gain access.

The continued success of this facility, which is still currently free to all Club members, must rely on input from Club members, and not just the Committee.

We all have had a lot of experiences running and maintaining our OO Live Steam locomotives, with many building specific Live Steam layouts as well. Please consider sharing your experiences with other Club members by adding to the contributions.

After all we have all now gained the knowledge of how to reset the timing thanks to Robert Evans' excellent write up (Hornby would not allow the Club to video record that process so it will not feature on the upcoming Club DVD).

The biggest problem you may have seen recently with the Forums is that they are now being targeted by Spammers. This involves a lot of work '*behind the scenes*' by a couple of Committee members cleaning up the mess and 'policing' the Forum membership. A change from the current instant joining method to a "Pending Approval" alternative is being looked at as another 'firewall'.

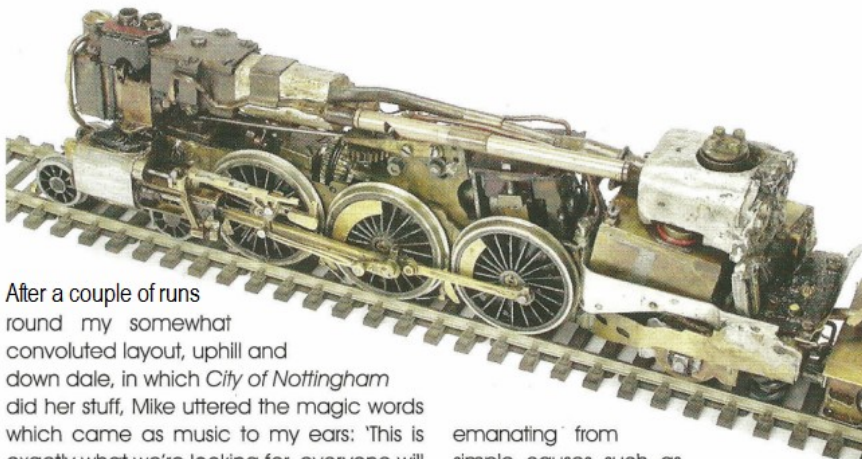
Another problem with the format of the Forums is that very useful knowledge/advice/techniques tend to get '*lost*' within the Discussions. Another long term project is hoped for to extract this information thus making it more readily accessible particularly to newcomers and hopefully reduce the repetition of this information within the Discussions.

Currently we have 97 Club members who can access the Club Members Area of which some 15 are taking an active part in the Forums – statistically that is only **0.05%** of the Club membership!

Monitoring of the website usage has only just been introduced. For July 2013 there were 10,508 pages viewed, 14 Discussions started & 198 Comments posted. User visits averaged 12/day.

**So here is a plea** to the inactive **99.95%** of the Club membership – Please consider increasing the **0.05%** by joining the Forums, taking an active part in the Discussions, and make use and even consider contributing to the Club Members Area – it is after all a free facility.

In the last installment Richard Hallam had just taken Mike Walters out to his shed to see a demonstration of his OO Live Steam "Duchess". In this final installment Richard concludes the story with the locomotives being produced in China for Hornby, and how he modified his Hornby OO Live Steam "Mallard"



**After a couple of runs**

round my somewhat convoluted layout, uphill and down dale, in which *City of Nottingham* did her stuff, Mike uttered the magic words which came as music to my ears: 'This is exactly what we're looking for, everyone will want one of these'.

Well perhaps not everyone - my first reaction was that I would wake up and it would be 3.00 am in the morning, but no, confirmation was to be received a few days later stating Hornby's interest in the project.

In this respect, I have to thank Hornby's Chief Executive, Frank Martin, for agreeing with his colleagues, he has always been openly enthusiastic and supportive of the project, often claiming it as a prime ingredient in Hornby's recent success. Anyway, now I could relax, enjoy the rest of the steam-up and explain to Mike exactly how it worked.

The next task was to set to and complete a less than half-finished live steam OO gauge 'Black Five' complete with detailed parts list that would be sent to the factory in China and used as the initial prototype. This was duly completed after about four month's graft after which I had the pleasure of meeting Edd Batchelor and Don Gray from Hornby, who came to witness it working and take it away, not to be seen again for some three years.

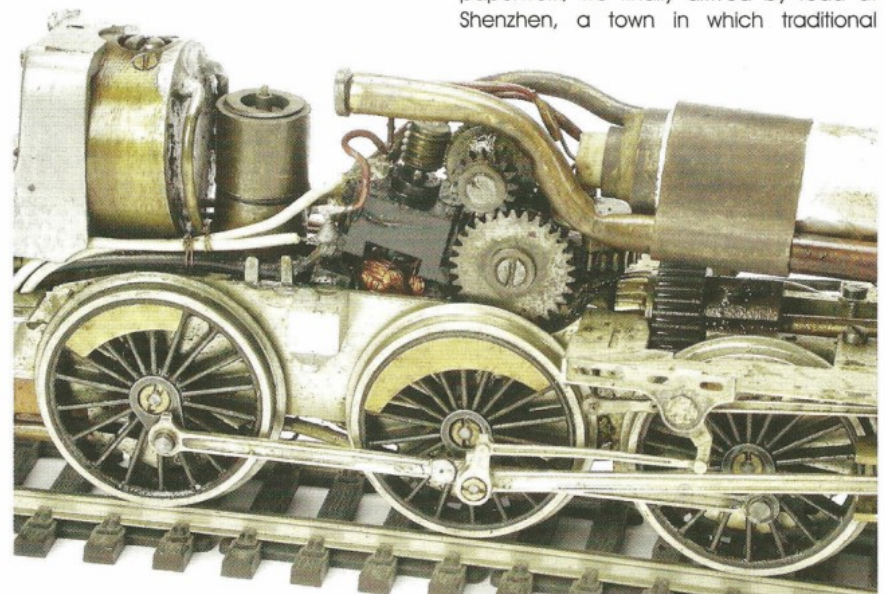
Time passed in which the Chinese development team were evidently scratching their heads wondering why I had done this or that in particular way; Was it for some reason, or was it dictated by what I had to hand in the workshop? Probably a bit of both. Eventually prototypes started filtering back to the factory in Margate and my wife and I were kindly invited to view.

The first thing that was apparent was that current consumption was too high, causing the models to blow off constantly, overheat, and burn out the heating elements. Whereas the original 'Duchess' could steam for 50 mins, these were struggling to manage 20 mins. The visit culminated with me being volunteered to take one of the models home to see how I could improve matters, as they were also tending to run rather erratically.

After taking it to bits, apart from the current overload, I found that the main problems were

emanating from simple causes such as critical clearances and bearings misaligned. The greatest improvement came from grooving the pistons and fitting 'O' rings.

I was surprised by how little, in principle, the design had changed from my original. Alterations to the constructional detail and the use of high-temperature plastics



had been incorporated to facilitate manufacture. The main difference was the addition of fail-safe electronics to the control system. This involved having to convert the on-board electrics on the Chinese prototype to run off my controller. When all was set up correctly it was gratifying to find that the loco behaved almost identically to the originals in every respect, which seemed to indicate a bench-mark of what could be reasonably expected of the design.

Once again, Edd and Don were invited to witness the results and disappeared back to Margate armed with the model, my report and my control gear to demonstrate progress to the directors. The green light was given to continue development and I was

invited to accompany Edd Batchelor and Mike Walters to China to discuss the various points that had come to light.

This needless to say, was an experience I shall not forget; from British Airways' attempts to downgrade out seats, to the wondrous panorama of Hong Kong on the aircraft's approach; the site of Hong Kong illuminated at night; (incredibly multi-storey skyscrapers are still erected using bamboo scaffolding) and experiencing the local cuisine every evening. Mention must also be made of Mike Walter's attempts to broadcast live, to my wife back home using his mobile phone, my pianistic renditions sitting in with the local band at a jazz club in Kowloon. Fortunately for her, she was out shopping at the time!

Eventually, my turn to visit the factory arrived and this involved a journey by the sea route up the Pearl River estuary using the local jet-boat service to the Chinese Republic, just over the border from New Territories. After much border control paperwork, we finally arrived by road at Shenzhen, a town in which traditional

Chinese culture was living cheek by jowl with an emerging and fast growing new technology.

Our hotel, on the outskirts, was of modern construction and lavishly appointed, demonstrating how keen the Chinese are to court business from the West.

The time came for Edd and myself to visit the factory, the journey entailing the negotiation of road junctions that appeared to be total 'free-for-alls' before we finally arrived at the factory gates. The factory buildings were flat roofed, two-storey construction, oblong in form and fronted by a fine formal garden. The production lines had the air of calm, unhurried efficiency without a conveyor belt in sight. The



operatives worked from trays of items waiting to be processed. Every building we entered on our visit to China, including the factory, was air-conditioned and this was necessary even in October.

Our Chinese hosts made us most welcome and I was introduced to the ten-strong team, one member of whom I learned had previous experience in such diverse industries as shipbuilding and watchmaking!

Edd presented our 40 point report and we settled down to some fruitful discussion lasting the next two days interspersed with tours around the factory where I was shown the manufacture of slot cars and trains of all gauges. The quality and attention to detail was stunning. All design work is done by computer and the necessary high-pressure moulds are formed using the latest laser technology. I found it very stimulating to discuss in detail the inner workings of the invention with a team that was so keenly interested and determined that it should succeed.

Discussions over, all too soon it was time to bid farewell to our Chinese hosts and wend our way 6,000 miles back to grey,

gloomy England and await results where, eventually new prototypes incorporating the suggested modifications came filtering through to the Margate factory.

Final details were decided on and then the green light was given to commence the manufacturing process, which entailed initial limited trial runs to sort out production methods and quality control.

Meanwhile, preparations were underway for the product launch at the Goodwood Revival meeting on September 5-7, 2003, of which much was reported in the model railway and national press at the time. Apart from Pete Waterman, who declared the proceedings open, it was a revelation to discover how many other media and business personalities were avid railway collectors.

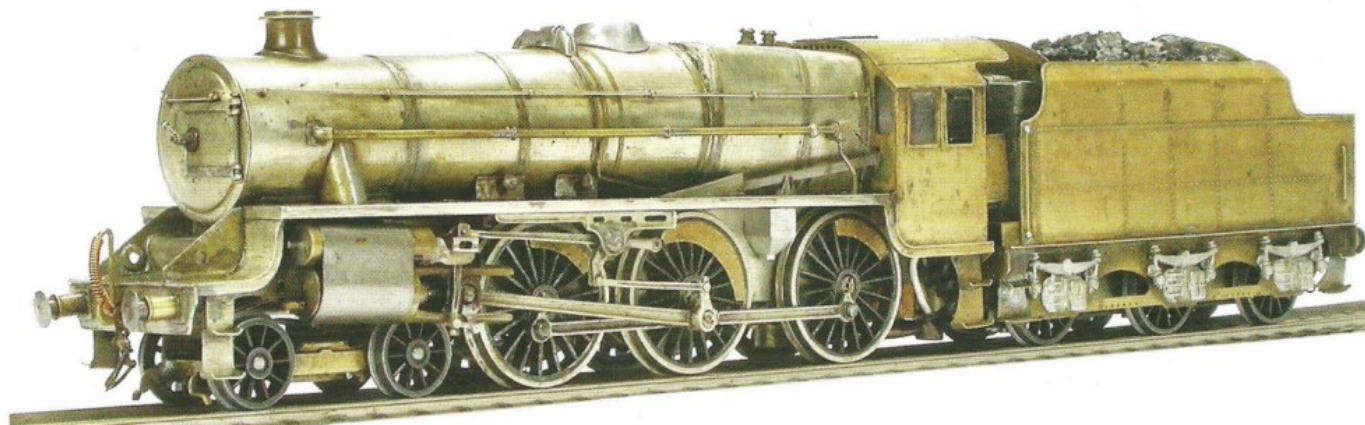
So that just about brings me up-to-date apart from commenting on what I have learned from all this activity: firstly I have been quite taken aback, but hugely gratified, by the interest in and success of the product. Ironically, looking back, my home-made video had provoked a positive response from the editor of *EURIKA* magazine, a 'cutting edge' journal aimed at the scientific community, who generously donated a cover story article to the effect that, whilst acknowledging the OO gauge live steam aspect, claimed that the system

had potential for use as small power sources in hostile environments! This instigated enquiries from such diverse sources ranging from managers in the aeronautics industry to animal feed suppliers in Lincolnshire. Personally, I think they just wanted a live-steam loco and trust that they have now made their purchases! Apart from that, my article in *BRM* stimulated just one enquiry from a kind enthusiast in Canada!

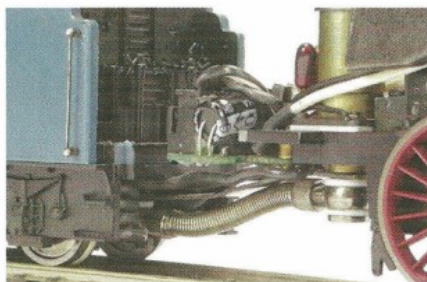
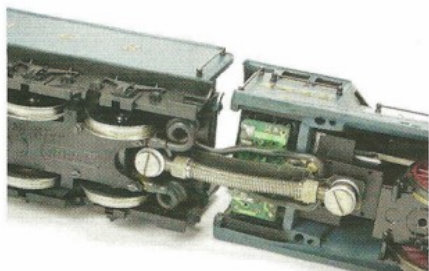
I think Hornby have done an excellent job in producing a model to a price that works really well and fully justifies the description 'precision engineering in miniature'.

As to the future of 4mm live steam, at the moment it is being seen as a train set with a difference. However, as different prototypes come on stream and with the potential for further development, combined with the fact that existing layouts can so easily be adapted to run live steam as well as purely electrically-powered models, I envisage the system being integrated more and more into the mainstream of railway modelling.

Probably this could stimulate a major rethink of the nature of layouts in the future as clearly the short end-to-end layout would hardly allow the engines to stretch their legs, but that does not mean that continuous running, around a circuitous track, is the only alternative. The locos have proved themselves capable of a steaming duration in excess of 45 minutes under continuous running conditions. This can be extended considerably by including station stops, etc, incorporating a 'simmer' mode, where the engine is on stand-by with boiler water retained indefinitely at just under blowing off point or thereabouts. Add to this the capability to perform shunting manoeuvres: my 'Black Five' for instance, which has fundamentally the same control mechanism as Hornby's *Mallard*, will perform quite precise movements with remarkable consistency, provided the operator is 'on the ball'! And this without grinding to a



The 'Black Five' has travelled 12,000 actual miles, but not under its own steam, being the prototype that was dissected by the Chinese development team. Again, this is scratch-built apart from the tender body and cab, with reinforced brass bearings added. Wheels are Romford throughout. Brake gear and sand pipes have yet to be added. Both models are waiting for me to summon the courage and the time to perform that nerve-testing process of adding paint!



board but just to be sure adhesive insulation tape could be added. To gain more space and realism in the cab, monitoring lights were re-sited low down against the back of the safety valve, which proved to be tricky, and the colours changed to reddish-orange and yellow, the idea being to emulate the glow from the fire helped by the eventual fitting of a suitable backhead. All was then painted matt black. Further proposals are the fitting of a cab floor round the electrics

shuddering halt whenever lack of electrical continuity occurs for whatever reason.

The sort of control fidelity required needs the loco to be mechanically 'spot on' and steam-tight, but once achieved and with the correct operational technique and only minimal maintenance, the loco will give lasting performance. Piston sealing rings have a long life but can be easily replaced when they ultimately start to leak. Incidentally my 'Duchess' is still running with its original cylinder bores untouched and I calculate that it has steamed in excess of some 150,000 scale miles! No two steamings are ever the same, and operation requires skill, but that's what makes it so fascinating!

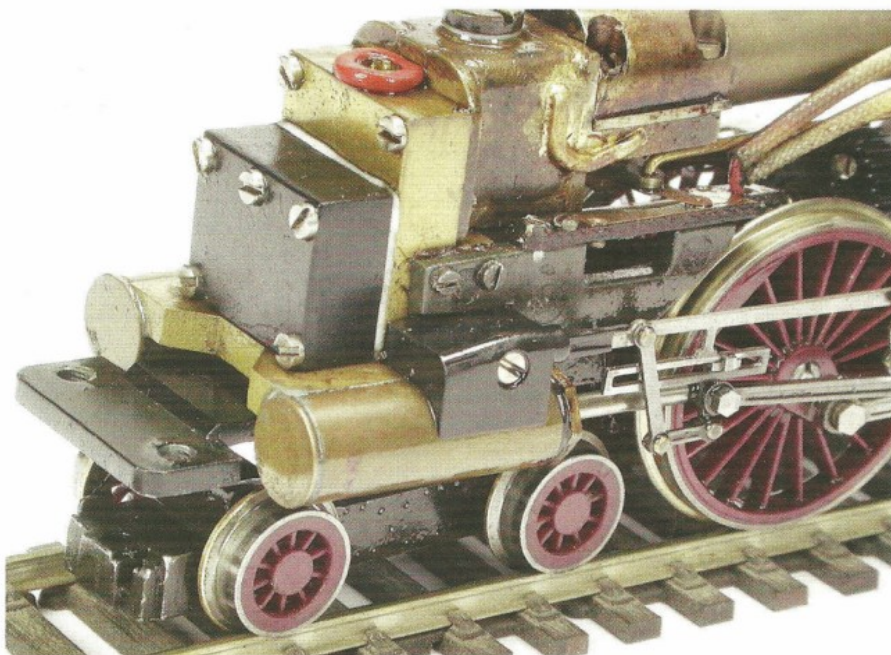
Finally, I would like to express my thanks to the following. To all concerned at Hornby for having the faith, courage and patience to promote my invention. It is a pleasure to be associated with them and they have always made me feel part of the team. To Neil Atkinson of the Railway and Barter Shop, Long Eaton, Derbyshire, firstly for suggesting I made that initial phone call direct to Hornby, but not least for his enthusiasm, encouragement and faith in the project and for maintaining the necessary veil of secrecy until launch day. Many thanks Neil.

Likewise, my thanks to Malcolm Godfrey of the Signal Box, Anstey, Leics. for his confirmed interest and encouragement, allowing his ear to be bent by my accounts of the trials and tribulations of what I was trying to achieve, and providing access to a supply of videos to fire my own interest.

Lastly, but by no means least, my thanks to my wife who stoically endured all those solitary evenings comforted only by the thought that I was suffering so many joyous hours in the shed! Seriously though, without her unstinting support I doubt whether the project would have come to fruition.

### Modifying Hornby's 'Live Steam' Mallard

The top two pictures show modifications carried out to tidy up the space in the cab, re-route the connecting wires between engine and tender and close-couple the latter whilst still enabling the loco to negotiate Hornby second radius curves. After removing the trailing truck, the drag link was found to have enough length to



redrill the hole on the engine end inside the original, the latter being dispensed with. Slight rebending of the link was found to be necessary. It was a simple matter to dismantle one of the flexible pipe fittings and shorten the silicone tube to suit (no need to shorten the external spring). The connecting wires were unplugged and disconnected from the tender. The circuit board was unscrewed from the chassis, suitable brass spacers made and the board refixed (visible in the second picture).

New connecting wires of similar gauge were cut to a longer length and the original tender terminals soldered on. The wires were then re-routed forming coils under the front tender platform for flexibility, passed under the circuit board having first removed the plastic guard, bent round the fixing bolt heads, and threaded back through the slot formed by the spacers to be re-connected to the plug.

There is no room to refix the guard because of clearance needed for the trailing truck. For the same reason any excessive soldering protuberances were ground down and the new wiring carefully routed. I have had no trouble with shorting between the trailing wheels and circuit

complete with fall plate, provision of a crew, more realistic glazing and thinning down the edges of the plastic side sheets.

And if your wondering how this negotiates second radius curves, small 'V' cuts have been made in front of the tender beam, which allow sufficient clearance for the cab side sheets. Whilst not readily visible anyway, the fall plate will cover these.

The picture above shows a simple, but very effective way to increase the audible 'chuff' coming from the exhaust. This works by sealing the gap between the top of the exhaust duct and the underside of the removable plastic chimney causing the outer body to act as a baffle, as in a loudspeaker. This was achieved by a sliding fit brass tube inserted into the exhaust duct (resting on a shoulder formed by a reduction in the diameter of the duct) and of sufficient length to form a protrusion at the top to locate a high temperature 'O' ring of suitable size. I formed a slight waist on the outside of the pipe to locate the ring more positively. The 'O' ring needs to be of sufficient thickness to form a seal but not so much that it pushes the chimney out of its location. I had to cut a flat on the back of the 'O' ring to clear the oil reservoir.

**In the end Hornby produced 8 LNER OO Live Steam locomotives ( 5 x A4's & 3 x A3's) with the last being the Limited Edition of 1000 Double Tender Flying Scotsman, but they ended up liquidating their remaining stock. What does the future now hold for OO Live Steam?**



## Eric Fenwick's BR Standard Class 8 "Duke of Gloucester"

In the last newsletter we featured Eric's SR Merchant Navy Class "Cunard White Star". This is the 3<sup>rd</sup> locomotive rebuild to come from Eric's locomotive works, and inadvertently some of the text from his 2<sup>nd</sup> locomotive rebuild was used in that description. So herewith Eric will discuss his 2<sup>nd</sup> rebuild, the "Duke of Gloucester".

The British Railways Standard Class 8 4-6-2 locomotive was designed by Robert Riddles. Only the prototype 71000 "Duke of Gloucester" was built at Crewe Works in 1954, as a replacement for 46202 "Princess Anne" which was destroyed in the Harrow and Wealdstone rail disaster of 1952.

Operationally it was regarded as a failure by locomotive crews due to poor steaming and heavy fuel consumption. It was only in service for 8 years, but fortunately it ended up at the Woodham Brothers scrap yard in Barry, from where it went on to be restored as a mainline certified locomotive with improvements incorporated to improve its steaming characteristics.

### **Eric continues:**

*Having proven the white metal kits can be used I was keen to produce another that was a little more testing in terms of build complexity. So I pondered over the list of available models from DJH Models and finally decided upon the BR Standard Class 'Duke of Gloucester'.*



*The choice was purely down to the look of the model, and of the real thing. She just looks like a powerful locomotive should, despite her chequered history.*

*The build was more complex than previous and I had learned many tricks and necessities from building the Coronation.*

*Whilst the main body of the Coronation was relatively easy to adapt onto the standard LS steam pack, this one was not, it having several major components that needed adapting. And having to virtually scratch build the tender*

*again because there are only three wheels sets compared to the Gresley's four.*

*Thus, although I had learned much to speed up the model making process, the added complexity really meant I'd spend just as much time on this second build compared with the first.*

**Electrical conductivity:** *Oh boy! The number of problems this caused me. Succinctly, anything in contact with rails (i.e. the wheels), is prone to shorting. In my experience the bogie, pony truck and tender are the culprits here. The solution I used is **a)** somehow make sure they don't touch the main body/tender or **b)** if they do, either use plastic wheels or insulate the areas where they can contact.*

### Eric Fenwick's BR Standard Class 8 "Duke of Gloucester"

At first, when I had shorting problems I ended up stripping down the loco completely, running it on the track and re-assembling parts one by one to eliminate problems. Many hours work but now I know.



Progressing towards Final assembly



The family together – Coronation & D of G

In the next newsletter we will feature yet another rebuild from Eric's locomotive works, LMS Fairburn 2-6-4T No.2245.

### THE SILVER JUBILEE TRAIN

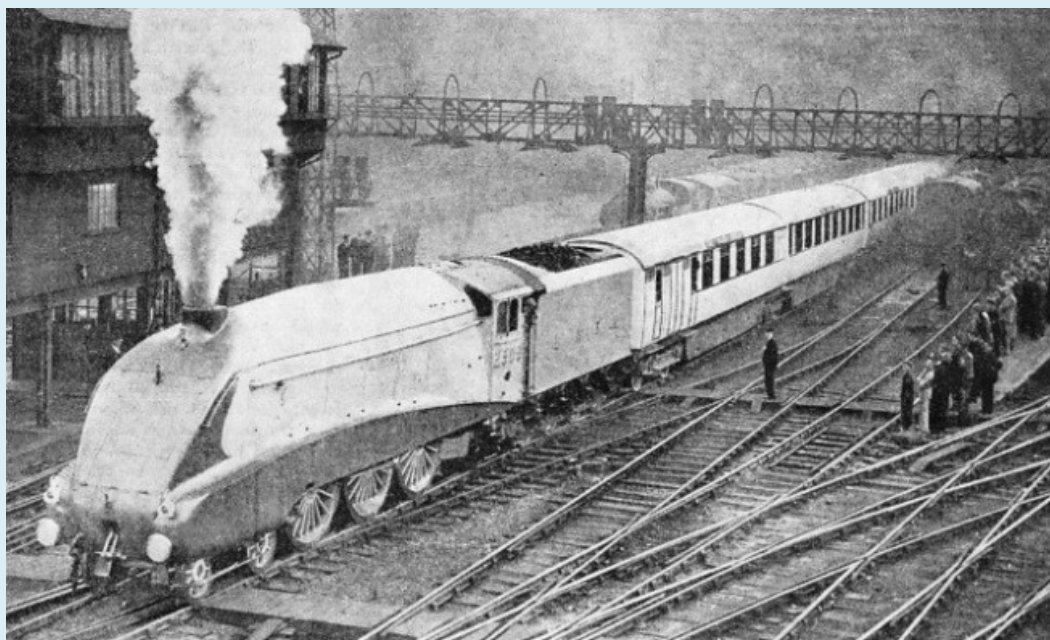
To help understand why we have adopted the title "THE SILVER JUBILEE" for our newsletter let us look at a brief history of this train service for which the LNER A4 locomotive was originally designed.

In the 1930s the railways were starting to suffer from the competition of advances in road & air travel, and so a faster, more reliable and more comfortable rail service had to be introduced between major cities.

Nigel Gresley (Chief Mechanical Engineer, LNER) travelled on the "Fliegende Hamburger" service, a streamlined 2 car articulated DEMU which due to the limitations of the German infrastructure had a maximum permitted speed of 160 kph, and ran its service at an average speed of 124 kph. Gresley was impressed with the need for streamlining realising that it was only effective at the highest speeds. From this he calculated that a streamlined & modified A3 would be able to haul 8 or 9 coaches at similar speeds.

After successful trials which set new speed records using A1 & A3 locomotives the LNER board authorised Gresley to create "THE SILVER JUBILEE" train, Britain's first streamlined train. This consisted of the newly designed A4 locomotive coupled to 7 streamlined coaches which had valences between the bogies and flexible covers over the coach ends - a twin-articulated First Class, a triple articulated Restaurant & Kitchen set, and a twin-articulated Third Class with a total train capacity for 198 passengers. A demonstration run out of Kings Cross on 27<sup>th</sup> September 1935 reached a maximum speed of 112.5 mph twice. The first service left Newcastle at 10:00am on Monday 30<sup>th</sup> September 1935 hauled by 2509 "Silver Link". A further 3 A4s were built for "THE SILVER JUBILEE" service, and it was a great success cutting the travelling time between London & Newcastle to 4 hours. In 1938 a corridor Third Class coach was added to the train.

## THE SILVER JUBILEE TRAIN



**Source: Railway Wonders Of The World**

The success of the service led to further LNER streamlined services from London, "THE CORPORATION" to Edinburgh starting on 04<sup>th</sup> July 1937, the "WEST RIDING LIMITED" to Leeds & Bradford starting on 27<sup>th</sup> September 1937 and the "EAST ANGLIAN" to Norwich starting on 27<sup>th</sup> September 1937. In total 35 LNER A4s were built.

The service was very mechanically reliable. Out of a total of 1952 Silver Jubilee services that ran only 10 were affected by an A4 experiencing a mechanical problem – a 99.995% reliability for our modern day Train Operating Companies to aspire to!

Due to the enactment of the Emergency Powers (Defence) Act 1939, the last service train ran on 31<sup>st</sup> August 1939 allowing evacuation trains to start prior to the beginning of the Second World War.

"THE SILVER JUBILEE" steam hauled train never ran again although some of the streamlined coaches were re-used on different services, and sadly none of the original four silver A4 locomotives survived into preservation. On 08<sup>th</sup> June 1977 to celebrate HRH Queen Elizabeth II's 25 year reign British Railways re-introduced "The Silver Jubilee" train which was hauled by another iconic British locomotive, the English Electric Deltic, with 55012 "Crepello" being adorned with silver buffers for the 1<sup>st</sup> northbound service.

Active Club member Mike Dunn is building OO scale coach kits for a "SILVER JUBILEE" train. Follow his progress in the Build Your Own section of the Club Members Area.

## Recent Club Roadshows

### Fawley Hill Steam & Vintage Weekend

**17<sup>th</sup> to 19<sup>th</sup>  
May 2013**

The Club was very fortunate in being invited by Sir William & Lady McAlpine to this unique event. Links to a short video and an illustrated report of this event are available in the Club Members Area under Video Links.

## Forthcoming Club Roadshows

<b>19<sup>th</sup> &amp; 20<sup>th</sup> Oct 2013</b>	<b>The National Festival of Railway Modelling</b> East of England Showground, Peterborough, PE2 6XE <a href="http://www.model-railways-live.co.uk/Exhibitions">www.model-railways-live.co.uk/Exhibitions</a>	
<b>19<sup>th</sup> Oct 2013</b>	<b>Exeter Garden Railway Show</b> The Matford Centre, Exeter, EX2 8FD <a href="http://www.exetergardenrailwayshow.com">www.exetergardenrailwayshow.com</a>	(Driver Training Experience & Help and Advice Desk only)
<b>23<sup>rd</sup> &amp; 24<sup>th</sup> Nov 2013</b>	<b>Warley National Model Railway Exhibition</b> National Exhibition Centre, Birmingham, B40 1NT <a href="http://www.thewarleyshow.co.uk">www.thewarleyshow.co.uk</a>	
<b>17<sup>th</sup> to 19<sup>th</sup> Jan 2013</b>	<b>The London Model Engineering Exhibition</b> Alexandra Palace, London, N22 7AY <a href="http://www.londonmodelengineering.co.uk">www.londonmodelengineering.co.uk</a>	
<b>08<sup>th</sup> &amp; 09<sup>th</sup> Feb 2013</b>	<b>The Festival of British Railway Modelling</b> Doncaster Exhibition Centre, Doncaster, DN2 6BB <a href="http://www.model-railways-live.co.uk/Exhibitions">www.model-railways-live.co.uk/Exhibitions</a>	
<b>21<sup>st</sup> to 23<sup>rd</sup> Feb 2013</b>	<b>Model Rail Scotland</b> Scottish Exhibition & Conference Centre, Glasgow, G3 8YW <a href="http://www.modelrail-scotland.co.uk">www.modelrail-scotland.co.uk</a>	
<b>22<sup>nd</sup> &amp; 23<sup>rd</sup> Mar 2014</b>	<b>The London Festival of Railway Modelling</b> Alexandra Palace, London, N22 7AY <a href="http://www.model-railways-live.co.uk/Exhibitions">www.model-railways-live.co.uk/Exhibitions</a>	

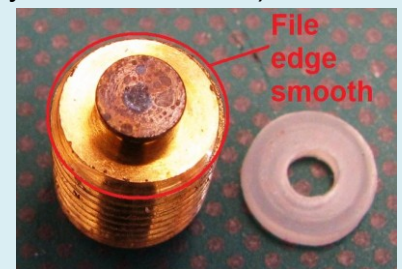
### OO Live Steam Technical Tips - No.1 Changing everyday Seals



Every time you run an OO Live Steam locomotive you need to remove & replace the water filler plug. This is fitted with a slice of silicon tubing as a seal. These eventually fail and need replacing. The locomotives when new were provided with 2 spare water filler plug seals, otherwise the seal is available as Hornby spare part **X9193** Overflow Seal Ring. A more convenient alternative (how many times have you had to 'fish' out your silicone seal) is to use

a Viton 'O' ring (3.0mm ID x 1.5 mm CS).

The edge of the water filler plug bottom surface can be rough due to the manufacturing process so it is recommended to file the edge smooth to prevent incurring further damage to the seal.



The A3 oil filler plug is fitted with a very small 'O' ring (1.5mm ID x 1.0 mm CS).

These are prone to damage which is difficult to detect visually, which can then affect the running performance of the locomotive (steam pressure leaking). 4 spare oil filler plug seals were provided with new locomotives, otherwise the seal is available as Hornby spare part **X9548** Oil Plug Seals, or the equivalent Viton 'O' ring elsewhere.

The A4 oil filler plug is fitted with a PTFE/Teflon seal which is longer lasting than the other 2 seals featured here. 1 spare oil filler plug seal was supplied with new locomotives, but is not available separately – they are only included in the Hornby spare part **X9278** Oil & Water Filler Plug pack. However they can easily be reproduced by punching out 0.5mm thick PTFE/Teflon sheet.

**"THE SILVER JUBILEE"**

**BRITAIN'S FIRST STREAMLINE TRAIN**

**NEWCASTLE AND LONDON IN 4 HOURS**

AVERAGE THROUGHOUT SPEED 67.08 M.P.H.

Weekdays (except) from 30th. September 1935

NEWCASTLE	dep 10. 0	KING'S CROSS	dep 5. 30
DARLINGTON	- 10.42	DARLINGTON	arr 8. 48
KING'S CROSS	arr 2. 0	NEWCASTLE	- 9. 30

Connecting trains serve Tyneside and Teeside

SUPPLEMENTARY FARES - First Class 5/- Third Class 3/-

**LONDON & NORTH EASTERN RAILWAY**

**LONDON & NORTH EASTERN RAILWAY**

Source: NRM