



GCR 567 Loco Group

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## № 567



The newly assembled frames of No.567 viewed on 15<sup>th</sup> September, 2018. The bogie side plates are at the bottom left. *Andrew Horrocks-Taylor*

**From the Chairman** - The Supporters Day, 2018 opened at 11am on the 15<sup>th</sup> September with the freshly assembled frames in plain sight on the apron to the GCR(N) Ruddington Locomotive Works. Chairman Andrew Horrocks-Taylor explained that we now had the skeleton of the locomotive laid out for all to see and jokingly added all we now need to do is fill up the spaces with components!

Chief Engineer Mike Fairburn then took the supporters around the frames explaining what would be fitted where and the challenges of some of the clearances. He also explained that the frames had been trial assembled, setting of the frames being the next step. This would entail things such as alignment of the motion stretcher to the crank axle centre and then alignment of the cylinder block to the motion stretcher, both being an absolute requirement ahead of hot riveting.

The group then viewed the frames again where a sheet was removed, revealing the bogie frame side-plates recently laser profiled and delivered to Ruddington.

After lunch events restarted with the AGM, the chairman delivering both his address and that of the treasurer Dennis Wilcock, who unfortunately could not attend for medical reasons.

The news included the finishing of motion parts, notably the slide bars. Financially at Year Ending 31<sup>st</sup> July, 2018 the group had spent £35,000 mostly on frame manufacture. There remained £45,000 available that is sufficient to cover all procurement needs for 2019, a list of potential work packages being displayed. Income continues to be strong at £15,000 per year. The AGM closed with discussion on potential sponsorship items, with supporters offering credible suggestions to improve income.

The day then moved onto the updated build presentation with the Chairman Andrew Horrocks-Taylor interviewing Chief Engineer Mike Fairburn as we stepped through the PowerPoint slide deck. The meeting closed with more individuals pledging to sign up to be supporters and a welcome offer from one of the supporters to provide talks based on the slide deck to promote the project.

Chairman Andrew Horrocks-Taylor describes the detail of the frames to Supporters at the Annual Supporters Day on 15<sup>th</sup> September, 2018. *Simon Burton*



Many supporters then rode behind the NRM prototype 125 unit along the original GCR line on the GCR(N) and so ended a great day with lots of good feedback for the restructured

### *Component Parts Review Hornguides and Main Frames*

It a pleasure to confirm that an order had been placed for the hornguides for the main frame. The hornguides have been generously sponsored by supporters to whom we extend our sincere thanks.

On the main frames themselves the hornguides will provide a major step forward in fully fitting them out. Further components will be added to the frames and once the bolted assembly proves that everything fits properly together riveting of the frames can commence. This process is expected to take us well into 2019.

## Valve Spindle Guide

The casting of the Valve Spindle Guide for which Ken Harrison made such lovely wooden patterns has now been delivered and awaits machining.

## Crank Axle

Supporters will know that Finite Element Analysis (FEA) was performed on the crank axle design to ensure that there were no excessive stresses in the design which might cause the axle to fail when in service. This preliminary analysis showed promising results so FEA Solutions, who provided the previous analysis, have been asked to quote for a fully engineered analysis that will provide properly authenticated approval of the design so that manufacture can proceed at the appropriate time.

## Boiler

Mike Fairburn has worked hard to produce a draft specification for the boiler of No.567. Supporters may remember that at the start of the project it was thought that donor boiler might be available. However, examination of that boiler showed that for the cost of repairs that were needed a brand new boiler could be obtained. With a new boiler having a much longer life and with much less maintenance required it was a no-brainer to go forward with a new boiler. Consequently expressions of interest are being sort from suitable contractors so that a suitable design may be arrived at and accurate costs obtained. This is a long term project!

One of the many advantages of building a MSLR/GCR Class 2 4-4-0 locomotive is that it is a very simple locomotive compared with many other new build projects. This is nowhere more apparent than in the boiler. In contrast to the other projects it is a saturated boiler without the complicated and expensive superheating equipment. It is also round-topped making construction much simpler than boilers with Belpaire fireboxes. This makes the 567 project much more achievable and much less costly.

## “Corby” Spares

The “Spares” comprising of two Slide Valve Castings, two Crosshead Castings, and two Valve Buckles and Spindles are an essential part of the motion for No.567. To gauge the value of these parts a professional steam locomotive engineer was engaged and reported on their state, necessary work to make them usable and their value. The parts were all deemed to be usable so an offer to purchase has been



The newly delivered bogie frame plates by a doubler plate on the main frames of No.567. Andrew Horrocks-Taylor

made to the East Midlands Railway Trust. Unfortunately EMRT feel unable to depart with the spares at the moment until the condition of the Corby locomotives at Ruddington currently undergoing restoration is fully assessed.

## Fund Raising

Did you know that while you are shopping on the Internet at your normal suppliers you could be making a financial contribution to No.567 without any cost to yourselves? Go to [www.easyfundraising.org.uk/causes/gcr576loco](http://www.easyfundraising.org.uk/causes/gcr576loco)

## Quarterly Draw

The September quarterly draw has taken place and the winners notified.

## Contact us

To learn more about any aspect of our project or for general enquiries you can email us at [gcr567loco@yahoo.co.uk](mailto:gcr567loco@yahoo.co.uk) or via the contact form on the 567 website ([www.gcr567loco.co.uk](http://www.gcr567loco.co.uk)).

We have a Facebook account at:  
[www.facebook.com/#!/groups/GCR567Loco/](http://www.facebook.com/#!/groups/GCR567Loco/)

Twitter: [twitter.com/GCR567Loco](https://twitter.com/GCR567Loco)

For General Postal Enquiries:

GCR 567 Locomotive Group Administration,  
c/o Mrs Dawn Bullock, 19 Hartridge Walk, Allesley Park,  
Coventry, CV5 9LF

After the delivery of the main frame side plates to Ruddington on 8<sup>th</sup> June, 2018 began the long process of meticulously marking out prior to drilling to allow the plates to be built up with the stretchers. Mike Fairburn and Simon Burton spent many a weekend on this task and the efforts must be warmly commended. The photographs below show some of this process. From the left: Mike drills the first hole in the frame plate (*Barry Nurcombe*). Mike busily marking out prior to the drilling of further holes (*Simon Burton*). A frame plate being drilled in the workshop of the Ruddington Locomotive Works (*Simon Burton*). Mike drilling further holes through the doubler plates and the frame plates for fixing 'slave bolts' which will be used to assemble the frames prior to final fixing with hot rivets (*Simon Burton*). The assembled main frames complete with buffer beam (*Simon Burton*).

