

# The Bluebell Standard

Newsletter of the Bluebell Railway Standard Class 2 Project

Issue 19 Summer 2015

## Locomotive Report

In this, the nineteenth issue of our news-letter for supporters of the project, we report progress with the project during the last six months. The Polished donated by the Carriage & Wagon Works has been stripped down and is stored at Sheffield Park ready for erection as soon as the site alongside Atlantic House is ready. This will require the frames to be moved temporarily. The original supplier has expressed his willingness to re-erect and cover the framework in due course. The sooner we get this done the better for us and the locomotive.



Hind Truck Frame Casting

After a series of discussions with Furniss & White about the required tolerances and machining allowances on the finished casting, combined with their 3-D modelling of the casting process, the hind truck frame casting was delivered by them and passed fit for machining in February. Since then the casting has been marked out and is being machined at Sheffield Park by Derek Barlow. The 300kg weight is quite a challenge for setting up.

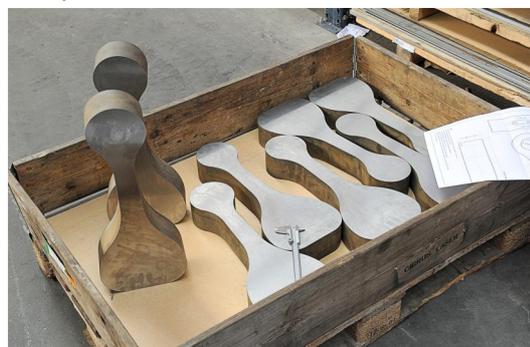


Marking-out the Hind Truck Frame Casting

A second casting has been ordered from Furniss & White by The 82045 Locomotive Trust with whom we have

shared pattern making charges. The open shape of the frame has proved to be a challenge to deliver to our requirements. Credit must go to Furniss & White for their attention to detail in the casting process and willingness to listen and respond to our concerns.

Roy Stirling continues to progress with the equally challenging pattern set for the hind truck cradle. Allowances for both normal and the abnormal contraction rates found with the first, unsuccessful casting are being incorporated.



Two Sets of Ground and Water-jet cut Swing Links

Two sets of swing links for the hind truck are in the final stages of manufacture. grade EN32T, a low alloy steel suitable for hardening by gas nitriding with minimal dimensional changes, is being used. Cirrus Laser have water-jet cut the shaped outlines and surface ground the opposing faces. These are now being finished by EPA who have machined the small end and are wire eroding the more complex big end internal profile and oil ways. One of these sets is destined for 82045.



Checking a Coupled Wheel Tyre Profile

Progress is also being made towards getting the locomotive onto its coupled wheels. The tyre profiles and journals,

which were machined at Swindon, have been checked and the axlebox liner faces approved for further service after cleaning and dimensional checks for wear, size and alignment.

The axlebox bearings have been pressed out and built up by Julian Leone for machining to suit the measured journal diameters.

The truck wheel tyre profiles have also been checked and found satisfactory.



Horn Guide with Liners ready for Grinding

David Oakley has completed the machining of the horn guide liner backing plates and Julian Leone has welded the side and face liners in place. These will be sent for grinding shortly.



Re-metalling Coupled Wheel Axlebox Bearings

All six axlebox bearings have been re-metalled by Brian Turner and Chris Wren in readiness for machining. The axle box thrust faces are next in line for re-metalling.

Peter Wolfe is busy machining the six axlebox keep castings.

David Oakley has started machining the internals for the cylinder cock drains and we hope soon to have a quote for four sieve castings. So far the pattern needed to get castings for the end connections is proving elusive.

Castings for three feed injectors and associated parts have been located. Martin Nichols has kindly volunteered to machine these for 84030. As the loco' uses a smaller 8x injector than other BR standards at the Bluebell, three will be

completed to have a standby. As reported previously we already have the fabricated support bracket to hand.

The vacuum reservoir tank has been inspected, cleaned, painted and mounted in position behind the smokebox.

Lubrication pipework installation continues along with the fabrication, painting and fitting of support brackets and clips.

Checks have been made on the alignment of the frame and horn openings in readiness for installing the guides and axleboxes.

Work has started on a fabrication drawing for the driver's pedestal having concluded that both of the two BR standard drawings need to be taken into account to deliver the correct finished component. We see this as essential to progress the installation of the vacuum brake pipework.

More significant fabrications and small castings are needed before we can assemble the hind pony truck.

We are glad to see some new volunteers taking an interest in the project and hope to highlight their contributions in due course.

### **Fund-raising**

We set up our stall at the one day Toy and Collectors' Fair at Horsted Keynes in May. This raised a useful contribution to our funds and gave us the opportunity to let the public know what we are doing. Our thanks are due to those who give us books and other items to sell. We would like to thank Barry Jones in particular for his generosity and interest in the Project and to others on the Railway who are good enough to allocate funds from events.

Thanks are due to all the working volunteers, some of whom come a long way to help, to workshop staff and to those on other projects, particularly from the Atlantic and Sir Archibald Sinclair groups, and to Peter Winstanley, who runs the BRSLOG Drawings Service, for their willing help and advice.

We are particularly grateful to all our regular and occasional donors, to whom this newsletter is really addressed, and to those who help in so many ways in support of our publicity and fund raising efforts.