The Bluebell Standard

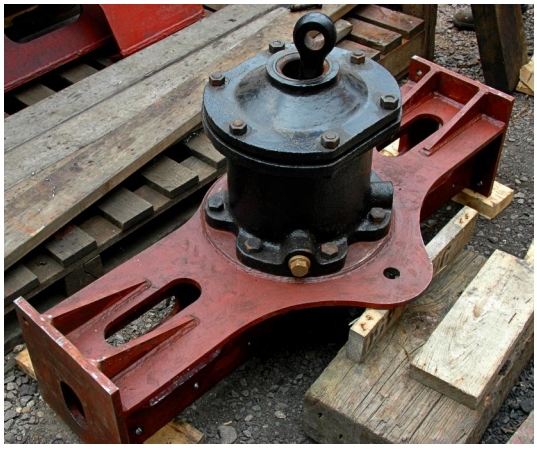
Newsletter of the Bluebell Railway Standard Class 2 Project Issue 8 Autumn 09

Locomotive Report

This is the eighth issue of our report and newsletter for supporters of the project. Parts continue to be prepared for the frame extension and more acquired. As reported previously we had started working two at a time from the hind drag box forward drilling the stretchers and flanges to match up for hot riveting in due course.

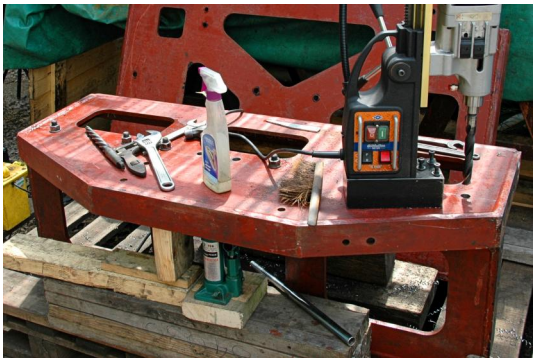
Horizontal stretcher to rear of firebox and brake cylinder support stretcher

As machining was completed stretchers were set up in pairs with side faces aligned and at the correct relative heights for drilling. The steam brake cylinder, which had been overhauled earlier, has also been successfully trial fitted to its support stretcher.



Brake cylinder fitted to support stretcher

We have now completed the drilling of all the stretchers forward of the hind drag box to the vertical stretcher immediately behind the firebox. We have recently purchased a fabrication for the boiler steady support bracket, which is to be mounted on this stretcher. See over-leaf. This has yet to be machined. The steady casting recovered from 78059 is in fair condition and will be re-used.



Vertical stretcher behind the firebox

An inspection of the castings obtained some time ago for the front and rear draw gear rubbing blocks revealed that they were not to drawing and it was decided to make a new pattern and obtain fresh steel castings from Furniss & White in Rotherham. The first of these has been machined for the hind buffer beam and trial fitted along with the beam reinforcing and attachment angles for later hot riveting. A casting for the draw-hook pivot has recently been ordered. This is needed when the hind extension is assembled as it is riveted to a vertical stretcher just forward of the drag-box.

The topic of cold turned rivets has been a concern for the project for some while. These are used for the majority of fixings in the frame plates for the engine. Enquiries from others with BR Standard Locomotives, who had had experience using them, and from BRSLOG and the National Railway Museum in York, about the design and methods of closing cold turned rivets, which were specified by BR to be made for an interference fit, have led us to conclude that countersunk fitted bolts will make a more reliable fixing at least as strong and with all the essential performance characteristics of cold turned rivets. These will be inserted from outside the frames. We are grateful to all who helped us to a conclusion. The next stage will be to prepare detail drawings and obtain the bolts we need. New drills and reamers have been obtained and some special fixtures to facilitate the use of the magnetic base drill are in hand.

Minor re-profiling to top edges of the frames has been completed to suit the

requirements of the water tanks. Fleet Tip in Bradford has fabricated the two rear supports for the water tanks as well as the two smaller front tank supports and two rear platform supports which will be needed later. The rear supports span the rear coupled wheels and the left hand one provides the mounting for the reversing gear screw and hand-wheel.

LHS rear tank support and reversing gear mounting

The RHS support is similar but without the mounting bracket. Some surfaces will require machining. In the meantime protective paint has been applied.

Boiler steady support and front tank support brackets

The creation of the missing drawing for the rear pony truck frame casting continues as time allows. Several outside views and sections have been set down in readiness for checking. Some small but significant differences between the BR and Ivatt Class 2 castings have been noted in the process. We were able to confirm from photographic evidence that the BR Class 2 2-6-2T really did have a swing link control for the rear truck as we had believed at the outset. We plan to take advice from the steel founders to ensure that the pattern we expect to make once the drawing is approved will yield a sound casting.

Brake pins are almost all ready to be sent for hardening and drawings have been obtained for missing parts.

Efforts continue to obtain two pairs of BR standard pattern buffers with circular heads. We are still hopeful that these can be sourced from a breaker's yard.

The existing truck centre will need to be machined to establish an adequate bearing face. We still propose to trial fit this to the hind drag-box before it is set in the frame extension plates and the underside becomes less accessible.

Bill and Ron have continued to progress the painting of the inside of the forward section of the frames. There remains more to do.

Work Planned

The immediate programme is the completion of the frames, including the frame modifications, mainly to the hind end, and the addition of the rear extension as well as the replacement of the front drag-box, which is also in hand.

Leading on from there will be the fabrication, machining and fitting of the left hand and right hand tank supports and the completion of the work on the coupled wheel axle boxes and horn guides and the purchase and machining of castings for the rear pony truck, together with fabrication of the associated reins and under-frame.

Fundraising

We continue to raise funds for the project with our now regular stall at Horsted Keynes. We were at the Toy and Collectors' Fair in July and Giants in Steam last month. Our display continues to interest new supporters and helps the sale of donated items, mainly books, at bargain prices. All this has only been possible due to our supporters' generosity.

Thanks are due to all the working volunteers, to the workshop staff and to those on other projects, particularly from the Atlantic and Sir Archibald Sinclair groups, 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. In this connection we want to mention a generous donation of £1000 from the carriage shop at Horsted Keynes Station.