

The Bluebell Standard

Newsletter of the Bluebell Railway Standard Class 2 Project Issue 4 Winter 07

Locomotive Report

This, the fourth issue of our report and newsletter, follows the delivery to Sheffield Park of the left and right hand frame extension plates and, a few days later, of the new front and rear buffer beams. The supply of these from Cirrus Laser was possible with the aid of funds subscribed by the project's supporters and a grant of £3750 towards the frame extension by the Bluebell Railway Trust.

The 25mm thick extension plates were profiled by Cirrus Laser using a water-jet cutting facility in which water laced with garnet is delivered to the cutting head at about 350 bar. The finish of the plate edges is outstandingly good and by requesting Cirrus to reduce the normal 75mm/min cutting speed along the vertical rear buffer beam faces and the faces taking the bearings for the brake cross-shaft, no further machining will be required. We will of course need to prepare the vertical front edges for the connecting butt weld.



The water jet machine profiling the first frame plate.



The frame extension plates at Sheffield Park

In the light of a recent appraisal of the amount of corrosion pitting in the front buffer beam plate, which had been straightened at Sheffield Park to correct damage sustained at Barry, and the likely unflattering contrast with the new rear beam plate, it was decided to purchase new plate for the front buffer beam at the same time as obtaining plate for the rear. Both were also profiled by Cirrus but using oxygen blown laser cutting as the plate was thinner. Several comments have been made that the two buffer beam plates appear thinner. Present day plate standards differ from those in the 1950s and after some deflection calculations it was decided to opt for 15mm, 0.75mm thinner than the 5/8" of the original for this class of engine and to make slight compensating increases to the scantlings of the corner gussets and stiffening angles.



Dressing flame cut frame edges.



Repainting the frames after needle-gunning.

The remarkably good weather we have had on Thursdays at Sheffield Park recently has permitted further progress to be made on the frames. The magnet-based drill was in use to drill additional holes and to prepare others for plugging on both sides. At a number of positions along the top of the frames, sections have been removed to allow the side tanks to be accommodated in due course and openings have also been enlarged. It is indeed fortunate that all the changes required to rebuild 78059 as 84030, apart of course from the rear extension, have required the enlargement of openings

or the removal of sections of plate! In order to protect the engine more effectively than hitherto, a set of timber trusses has made up to support a uPVC cover purchased by two supporters. It is hoped this will be delivered within the next day or so.

Derek Barlow has started machining the frame stretchers, beginning with the horizontal stretcher that carries the centre for the rear pony truck reins and the trailing coupled wheel rear spring hangers. The remainder will follow. We are increasingly impressed with the accuracy of Fleet Tip's fabrications. The rear pony truck main horizontal stretcher plate has been lifted onto 'A' frames and preparations for assembly with the two cross stays have commenced.



The first stretcher with frame flanges machined.

Restoration work continues on the reversing gear. New seals have been obtained for the reversing gear screw shaft, which has been cleaned and adjusted and now runs freely in its bearings. The gearbox is being overhauled. In the background, a list of angles for the buffer beams and flat material needed for the rear pony truck stretcher has been prepared for ordering from a stockist. Drawings are complete for the hind buffer beams gussets and are in hand for the water tank support girders, the left hand one of which also supports the reversing gear.

Work Planned

The immediate programme is the preparation of all the remaining parts needed to complete the rear pony truck stretcher and have this and the front pony truck stretcher welded and machined. The frame extension plates need marking out and drilled before being set up at the rear of the frames in readiness for attaching the rear buffer beam and inserting the pony truck stretcher. We are considering a small area of hard standing to ensure the frame extension plates can be kept in alignment with each other as this proceeds.

The short term goals continue to be to complete and fit the front frame stretcher and buffer beam, to complete the hind frame extension with its buffer beam and to attach this to the rest of the frames. This will be a tipping point in the Project. Meanwhile work will continue to restore the horn-guides and axle boxes, build the pony trucks so that the engine can be wheeled and the motion fitted and make and acquire other parts.

Fundraising

This Summer we mounted displays to promote 84030 and raise funds at the two-day Toy and Collectors' Fair in July, at Bluebell 125 in August and at the Giants of Steam Weekend in October. The latter was particularly successful due to books generously donated by Les Buist and by Barry Jones along with other items. We raised nearly £400 on this weekend alone. Barry has given us more books and these look like being a feature of our sales next year. We have also been successful selling items on e-Bay, thanks again to the generosity of several supporters. An air conditioning unit donated by Gary Boyt and an item of GPO equipment donated by Roy Stirling raised a total of £135. The project is also beginning to appear in the railway press.

We continue to receive support from other areas, including a very generous donation of £2000 from the Carriage Shop at Horsted, and of course the Trust.

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 our 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.

We are benefiting greatly not only from the Trust's agreement to process regular and occasional financial contributions from taxpayers of £20 or more to the Project as charitable gifts but also for their grant towards the Project. It is not just that there is no surviving example of a British Railways Class 2 Tank Engine; 84030 will be exactly right for the Bluebell Railway's operations in terms of its versatility, power and reliability.