

LBSCR *Terrier* 72 'Fenchurch' overhaul

Update - February 2022

Paul Russell, Bluebell Locomotive Director, introduces the work currently in progress:

Work continues to progress well with the frames at Statfold Barn.

As reported in the winter 2021 edition of *Bluebell News* (and below) the new cylinder block has been fitted in the frames, and while alignment is good there is still some fitting work to do to ensure the cylinders are exactly aligned in the frames as this forms the datum from which all the parts of the motion and wheelsets are measured and set. Once this has been done the motion can start to be re-assembled and the frames re-wheeled.



Derek Hayward, 30 March 2008

Work on the wheels and axles was covered in the last report. Ultrasonic and MPI tests highlighted cracks in the big end bolts and new items are being fabricated to replace these. An order has also been placed for the complete painting of the frames as this is more easily accomplished before the locomotive is re-assembled. It is anticipated that the frames will return at the end of March.

Boilersmiths Simon Blaker and Henry Mowforth, and volunteer Andy Kelly, continue with the boiler work apace with the return and trial fitting of the new inner firebox and foundation ring. These are a good fit and a start can now be made on fitting it into the new wrapper, throatplate and backhead. The new firehole ring is also on site for fitting – this now being to the correct size for the loco, unlike its 1970's predecessor.

The wagon containing a range of ancillary parts for the loco was shunted into the maintenance shed on 16 January. Locomotive Fitter Ben Harvey has made a start on sorting and assessing the work required on the tanks, cladding and a whole host of other parts for the loco. Plenty of cleaning down and painting to do here (hint hint!).

We start with a photo update from our own Loco Works at Sheffield Park, and then we move on to the work on the cylinders and chassis at Statfold Engineering Ltd.



These ten photos from Andy Kelly show recent work on the boiler and firebox at Sheffield Park:

The new steel inner firebox made by Israel Newton (as per other *Terriers* which have had new fireboxes and boilers) is seen being test fitted to the boiler at Sheffield Park. The original outer wrapper has been bolted back in place to facilitate this.

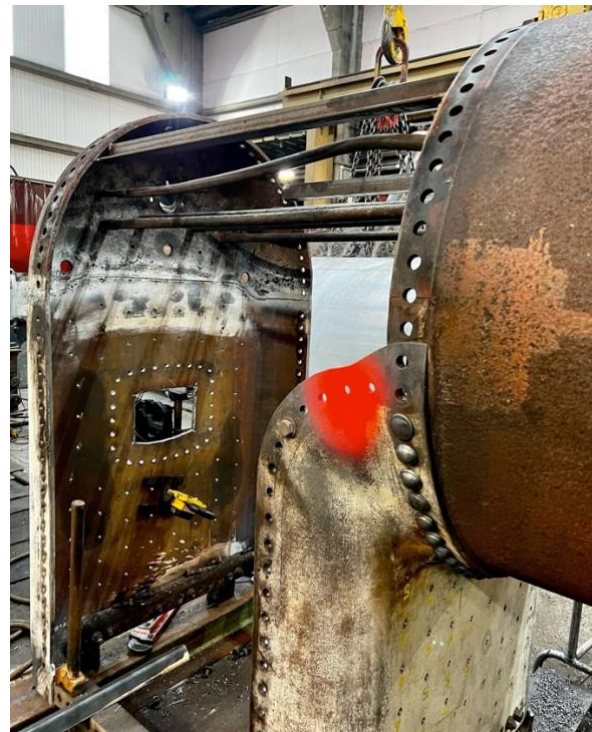


Right: Simon Blaker and Henry Mowforth check the alignment of the new inner firebox.

The new lower firebox outer backplate has already been drilled. Here we see the inner firebox sides being pilot-drilled.



With the original foundation ring returned to Sheffield Park, work moves to final alignment of the new outer box. Here we see the tweaking of the throat plate to get a good fit to the new wrapper.



The new outer wrapper is lowered into place for a trial fit – which is perfect!



In the last shot below from Andy Kelly, the boiler for 34059 'Sir Archibald Sinclair' is seen in the background.



**Report and photos covering work on the cylinders and chassis, courtesy
Statfold Engineering Ltd:**

The new pair of cylinder castings are bolted together in readiness for trial fitting into the frames



The cylinder block was lowered into position. This was achieved by measuring the old cylinder blocks and then machining the new cylinders to suit the existing holes in the frames.



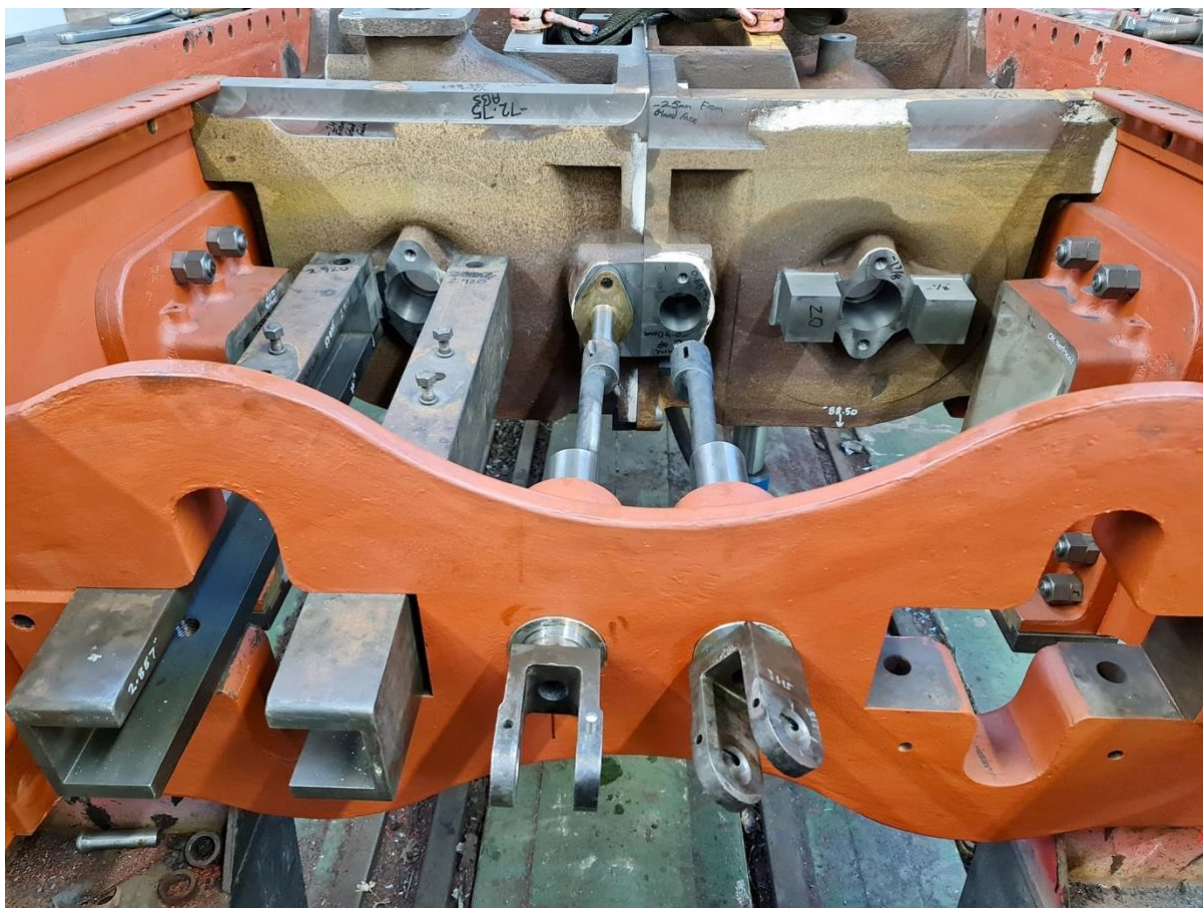
A view from the rear.



The guide bars trail fitted to check the alignment with the frames stretcher that supports the back of the guide bars.



The valve rod assembly was trial fitted too. Only a small adjustment will be needed on the valve rods to ensure the correct fit and orientation.



A view from the footplate.

A wire was used to check the positioning of the cylinders and guide bars. Once we were happy, the holes for locating the guide bars on the cylinder casting were reamed out with the mag drill and new fitted bolts made.

The eccentric straps have been white metallized and finish machined. The eccentric rod studs have been removed and new ones are to be made and fitted. This picture shows the replacement big end bolts, little end bolts and guide bar bolts. The old bolts were found to have cracking around the bolt heads under MPI inspection.



The new motion pins and die blocks have been made and are ready to go for hardening and then finish grinding.



The axleboxes are in the process of being white metallised.



The rear horn guide stretcher has been removed, repaired and refitted.

The horn guides themselves have had the threads repaired in the top mounting brackets and new bolts made to secure the stretcher plate in position. This plate mounts the rear coupling, so it's essential for this to be firmly fixed to the footplate and the rear horn guide castings.



The front of the frames are being painted now, since when the cylinders are fitted, even the smallest of people wouldn't have a lot of room to work.



The new brake hanger housings have been made and riveted onto the frames.

