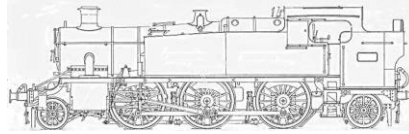


The 4150 Fund 2023 Newsletter CBS No. 8179



John Titlow

4150 looking like a real loco again with the boiler trial fitted to enable pipework to be formed.

The 4150 Fund is a Community Benefit Society overseen by The Financial Conduct Authority

Chairman:- Peter Maddicks

Secretary:- Peter Willoughby

Treasurer:- Stephen Goodchild

Trustees:-

Peter Dodson, Dave Fulcher-Insull, David Massey, David McFall, Mike Hutt

The Fund's AGM this year will be held at the Kidderminster Railway Museum, in the old nursery building at 14.00hrs. on Saturday 9th. September 2023.

Chairman's Report – Peter Maddicks

It is time for the chairman's annual report again and we have a lot to tell you this year. First the loco is fully back on her wheels and all the valve gear and brake gear put back up. The bunker is back in place, as is the steam heat and the vacuum pipe work. The boiler is temporarily back in the frames so all the large copper pipes can be made up and fitted. Tony Howard will give a more detailed report. The boiler is all but complete, but we will finish it as late as possible so we can get the most out of the boiler ticket. Another good year on the fund-raising side, but we would be most grateful for any support you can give so we can see the job through to completion. I would like to thank you all for your support over the years, you make what we do possible. The Treasurer's report will give more details.

We are still working on the running agreement with the SVR, this very slow at the moment due to the current situation with the managing director leaving and the new world order that we are all now living in. We also have the responsibility to secure the future of the loco. Thanks also to Paul Bennett for running the Fund website and keeping you all up to date with what is going on with the restoration.

We are now very much on the home straight, the main jobs outstanding are completion of the side tanks, the copper pipe work, test the boiler, then final assembly and painting.

I would like to pass on my thanks to all the working volunteers who have worked so hard to get the loco to this advanced stage, a job well done and ably supported by you the shareholders and my fellow trustees. Thank you all for your hard work. I hope to see as many of you as possible who can make it to the AGM.

Secretary's Report – Peter Willoughby

Firstly the time and date of this year's AGM is Saturday September 9th at 2.00pm. It will be held in the nursery building which is behind the Kidderminster Railway Museum on the right of the driveway that leads into the car park. The reason for this is that September is the art exhibition month and the big room is not available. As always the meeting agenda and last minutes are included within these pages.

Please be aware the SVR have introduced an automatic number plate recognition system in the car park. However if you go to the King & Castle you will be able to enter your vehicle details when buying a drink so you won't have to pay.

Those of you that support the Fund by way of a monthly subscription should find your certificate in with this Newsletter showing the share accrued over the last 12 months. Thanks to you all for this vital funding, it really does make a difference.

If, since last year you have acquired an email address welcome to the 21st century and please share it with us. It is also important we have your current postal address and are kept informed of any corrections needed. pww1946@gmail.com

In 2007 when The Fund made a new start we struggled to locate 15 members. We now have a following of 560 Shareholders and with so many new members the next page has been given over to the engines background. We are always in need of articles of general interest, they do not have to be specifically 4150 or SVR related.

Graham is our intrepid seller of all unwanted transport related items and converts them into real money for the Fund. So if you have anything gathering dust in the shed, spare room or attic please get in touch.

45 year Timeline

No 4150 a G.W.R. large Prairie 2-6-2 Tank Locomotive was sent new to Stourbridge Junction shed in 1947 and undoubtedly would have worked on the Severn Valley branch many times. She was withdrawn from service in 1965 and sold to Woodham Bros. for scrap. 4150 languished in the salty sea air at Barry for 7 years until saved by a small group of enthusiasts in 1972. The 4150 Fund was announced to the world in March 1973 and due to site difficulties at the Dean Forest Railway she was moved to Bewdley on 19th January 1978, that's 45 years ago. However during the mid 80s restoration came to a virtual halt until in 2007 steps were taken to make a fresh start. 4150 is the last Barry engine on the Severn Valley yet to be restored to working order.

By 2009 restoration work was well under way on the chassis and related fittings along with plans for new side tanks and bunker. Working conditions were far from ideal for the growing band of dedicated working volunteers with little protection from the elements and using only basic tools.

2018 sees the boiler being readied for its journey to Bridgnorth and it was lifted from the frames in Bewdley yard in July. Work started on it within an hour of its arrival at the boiler shop and continued at a pace. It is now very near completion and is a model of collaboration between volunteers and full time SVR staff.

In April 2021 the engine finally took its place in the workshop at Bridgnorth and was lifted clear of the wheels giving good access to the underside. The engine is now back on its wheels and the boiler trial fitted so the pipework can be formed. Despite Covid and being almost forgotten in a Bewdley siding we are finally getting there.



Engineering Report - Tony Howard

Last year's report finished with the removal of the water tanks. These were put on a flat-bed wagon along with the smokebox door and shunted down the Hollybush sidings.

Work then began to get the ponytruck ready to re-join the rest of the loco.

The ponytruck is in two parts. The wheels and the compensating beam.

The compensating beam has to be held temporarily in position in the pony ratchet strap. Once this had been done the whole unit was moved to the wheel drop. Two volunteers and three full time staff using the wheel drop fitted the pony truck back under the loco. It took nearly all day to do, but the loco was a 2-6-2 prairie again.

The next working day the spring hanger bolts were fitted that hold the compensating beam to the front spring of the leading driving wheels. The vacuum and steam heat pipework that had to be removed to fit the ponytruck were put back. A start was made to refit the drain cock mechanism, the vacuum pump operating bracket was fitted along with the pipes to the front and rear sand boxes. New cotter pins were made and fitted to the crosshead. This was the last day the loco could be over a pit before work starts on the shed roof.

The loco was then moved to its new temporary home outside the boiler shop.

The lubricating pipework was fitted to the top of the ponytruck and new vacuum bags were fitted to the front and rear swannecks. Lots of new gaskets were made for steam heat and vacuum pipes.

It was getting more difficult to work on the loco with no pit and having to keep the loco mobile for access to the boiler shop.

Plenty of Waxoil was applied to the frames before the bunker was fitted. John Whitcomb our late treasurer would be so pleased, as he would never miss a chance to extol the virtues of this product.

Next job bolt up the balance pipes, then the holding down bolts. This means someone has to go into the water space in the bunker! Not a pleasant job. By the end of the day about half of them had been fitted.

Next working day was fitting the rest of the holding down bolts and the drain down valve to the bunker.

The three lamp brackets were found and prepared for welding on the back of the bunker.

These were welded on when our welder was on site. The front and rear flanges that the steam heat valves are bolted to were welded to the steam heat pipework. These flanges have a reinforcing collar welded to them also.

Because of Holidays and high temperatures not a lot was done, but a few of us went to Bewdley to clean up the site that we had vacated some 14 months ago, and also to see what was in the container that we would need at Bridgnorth. We found a length of copper pipe with complicated bends, it looked like it was the pipework from the water valve to the injector, and also our 8mm injector. These were taken to Bridgnorth the following week.

Unfortunately this pipework was not off our loco, but we trial fitted the 8mm injector to check alignment of the outlet pipework. It was slightly out but soon rectified. The injector was then taken off and put into safe storage.

August, all work was concentrated in the boiler shop with re tubing the boiler, 218 smoke tubes all of which needed to be fitted and required some level of annealing, finishing, measuring, cutting, angle grinding, expanding and beading.

The loco was finally moved back into the refurbished shed. The 10mm injector was fitted along with the foot valve and drain pipe.

August Bank Holiday, the loco was shunted over the long pit and the new spring hanger bolts were fitted with the help of two 25-ton jacks.

September, the drain cocks were fitted and the mechanism adjusted so both sides opened at the same time.

The pressure relief valves had been calibrated to 215lbs, that is 15 lbs over boiler pressure and were fitted each end of the cylinders.

The 8mm injector was an old injector and it looked its age but a good clean up and it looked almost like the 10mm one. It was fitted temporarily in position.

Around the middle of November we were asked for our regulator box and valve as the full-time staff needed to check it over. The regulator box along with the cover and valve were taken to the machine shop for inspection.

Another job we were asked to consider was how we could fit a low-level water feed to the tanks. This is because it may be against 'Working at Height' regulations in the future for staff climbing on the top of the tanks to fill up. We think we found a solution to how this can be achieved.

Work has also continued on the steam fountain in the machine shop. By the middle of December all the boiler tubes had been fitted, expanded, and beaded over. We now have a 90% complete boiler.

The loco was shunted round into the boiler shop ready to reunite the boiler to the loco on 29th December. This operation took nearly all day, but the boiler was sitting in the frames and bolted in securely.

The following week 4150 was shunted back to the shed.

This shunt had to be done that week before the point work was started at the south end of the Station. The first working day of the new year was 16th January, there were various jobs to be done, so we split up into three groups.

The first group removed the 7/8" Whitworth studs that secure the main steam pipes, measure them, and give the dimensions to the boiler smith as there was a batch being made on the CNC lathe. The second group removed the brake rod that had been damaged when the boiler was reunited with the frames. This was achieved and the rod was taken to be boiler shop to be straightened. Group three arranged for the superheater header and the firebars to be brought from safe storage to the loco shed.

The new crane in the shed was used to lift the superheater header onto a bench. We examined the threads and found when the original studs had been removed many decades ago, one stud had broken off around an inch below the surface. There was damage to two other threaded holes which needed opening up from 7/8" to 1" Whitworth. Later when the firebars arrived a start was made assembling the grate.

The following week we again split into two groups. A drilling jig had been made to drill out the broken stud, the first group managed to remove the stud and run a tap down to clean up the threads. Meanwhile the second group made a start fitting the backhead cladding.

We then looked at the operating mechanism for the drop grate. We looked at the GWR Manor and the Hall to see how it had been fixed to the loco and decided to use the Hall as the way it was fitted was very similar to our loco. Photos, measurements, and sketches were taken of the various parts.

Areas of the ashpan were marked out to be removed as they were close to pipework and other parts of the brake rods. These offending parts were cut out.

Work continues fitting backhead cladding, some fettling was needed to get it to fit. The firehole doors were fitted and more fettling was required to get the left-hand door to open fully. The operating lever that opens and shuts the doors was fitted and all worked perfectly. A start was made assembling a walkway either side of the boiler ready to fit the crinolines. The two large steam pipes were examined and we were informed they would need replacing so an order was raised for new ones.

February, the loco was outside as the shed was full of locomotives under-going Winter maintenance including one that needed the wheel drop to sort out hot boxes. While this loco was on the wheel drop we had the opportunity to look at the catch mechanism on the oven door. Measurements were taken and a 3D print was taken ready to be made in steel. More work was done on the backhead cladding. New studs were fitted to the firebox and new brass castings were fitted. Many of these needed a fair bit of fettling to fit correctly. As we are fitting a drop grate some of the pipework will need to be altered, the ashpan is a new design the operating arms for the damper doors will also need altering.

With the loco being outside in all weather conditions work was a little hit and miss for the first half of March.

The vacuum pipe that goes from the vacuum retaining valve to the train pipe did not quite line up. We disconnected the nearest flange and managed to move the pipe forward until the two pipes lined up. Just needed another flange to fill the gap between the flanges.

Now with the brake valve in place we could check that the vacuum pipe that goes from the brake and through the cab floor did not interfere with the drop grate operation, luckily it didn't. We can now work out what is needed to join the vertical pipe to the train pipe.

Although the loco is presently outside the cab roof is inside the paint shop, it has had a good clean and further coats of paint.

Eventually the loco was shunted back into the shed and over the wheel drop pit, ideal for sorting out the vacuum pipework. A lot more fettling was needed on the new brass castings, particularly the gauge frame and the blower valve. Eventually the gauge frame fitted perfectly but the glass and the blower valve will need a bit more work.

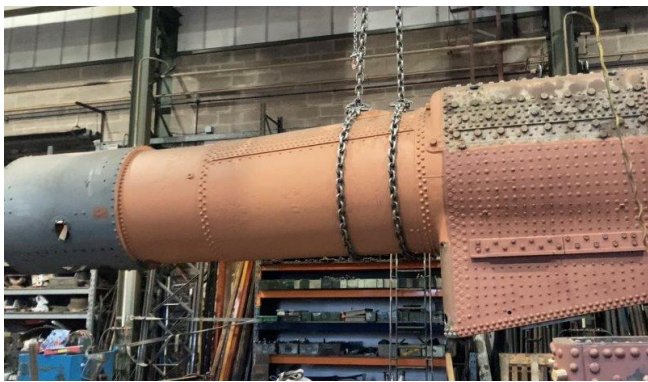
The parts for the drop grate operating mechanism were delivered and we now need some turning done, one of our volunteers is doing this at home. The last job in March was to retrieve the smokebox door from the wagon on the Hollybush siding and move it into the paint shop.

Fitting the boiler back in the frames.

The boiler on 4150 was still in relatively good condition at withdrawal and that was the reason it was chosen by the initial group. It underwent a major overhaul on its last visit to Swindon works and had a new firebox fitted. It was then put into storage for 18 months before being withdrawn from service.

4150 has a Standard Number 2 boiler originally designed to operate at 200psi but for class 61XX it was uprated to operate at 225psi., to save weight nickel was added to the steel. Our engine will operate at 200psi. When empty the boiler weighs approximately 15 tons, the firebox grate is 7ft. long and the barrel length is 10ft. 3 inches.

Below are photographs taken by our working volunteers starting with the initial well-balanced lift and then picking up the new ashpan which is more visible in the third photograph. Next the precarious job of merging it with the frames, so tight was the fit the heads of the foundation ring rivets were ground back and will need attention when the boiler is next lifted for testing. The last photograph shows a job well done.



A narrow escape recalled - Dave Massey

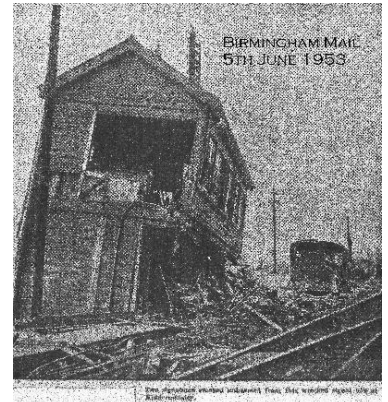
"I Thought My Time Had Come", Says Signalman

This headline appeared in the Birmingham Mail newspaper of 5th June 1953. The accompanying report and photographs were of the aftermath of an accident the previous evening which had partly demolished Kidderminster Junction Signal Box. They were the words of the night duty signalman who had entered the Box to relieve his day colleague immediately before the collision. The two men were together in the Box and both escaped with only minor injuries but in severe shock.



Rear view of damaged box

Shortly after 10 pm a wagon near the head of an Oxley to Tavistock Junction fast fitted freight had derailed and tilting sideways ripped out the lower front structure of the Signal Box. The badly damaged remains of the Box, of timber construction, tipped down and sideways to rest against a stout telegraph pole. The wagon chassis landed upside down on the embankment having shed its body and contents just beyond the Box leaving debris scattered across the track.



A further eleven wagons then derailed causing much more damage to the main line beyond the junction point work.

The Signal Box had controlled movements on the Up and Down main line and goods loops, the junction for the Severn Valley branch and loco shed and access to the busy Goods Yard and Goods Shed. The Signal Box was a GW type 28B design and had been built in December 1937 as a replacement for, but positioned south of, an earlier version dating from 1912.



Repairs and clearance underway



General view of damage, Down freight approaching

Although the Box was put out of use the immediate priority was to clear the debris from the adjacent lines and maintain traffic flow using the Down main and goods lines. Surprisingly little disruption other than delayed services resulted. The Box was initially shored up to prevent total collapse but subsequently demolished and replaced by a temporary structure.

The quoted newspaper and also the Worcester Evening News & Times newspaper reports included several photographs of the damaged Box, derailed wagon and damaged trackwork. It appears from one of the

photographs that the cause of the derailment might have been a fractured axle on the wagon that first derailed and hit the Box. The Worcester newspaper states that the cause was unknown and that an inquiry would be held but no official report appears to have been published.

Much trackwork and S & T installations required replacement or repair and were carried out using engineering trains and personnel from Worcester Depot. Construction of a permanent replacement Signal Box was not completed until October 1953 and was of a non-standard modern flat roofed design. This subsequently closed in August 2012 and demolished shortly after when all train control was transferred to West Midlands Signalling Centre at Saltley, Birmingham. The 63-lever frame was however saved by the SVR for possible future re-use.

All photographs included here are to credit B. Moore, Kidderminster Railway Museum.

Fond Large Prairie memories from shareholder - John Bailey

I spy fifty one fifty one

As a young spotter in Wolverhampton in the early 1950s I soon became acquainted with frequent appearances of named locomotives from the three sheds there. Jubilees from Bushbury, Castles and Kings from Stafford Road and amongst others from Oxley Pendeford Hall, named after a building just over a mile from the shed. But of the locomotives without a name the only one that stuck out was 5151 which seemed to be present most times I went on walks with my father.

At that time local services were provided by a Large Prairie with three or six coaches. A great vantage point was where the line north from High Level to Stafford crossed over the line from Low Level to Shrewsbury on a viaduct. Dunstall Park station was just beyond the viaduct, so the sound of a local starting up from the station would echo off the brickwork, before the rapidly accelerating train would storm past only a few feet behind a set of railings. Sometimes a Prairie straight out of the Stafford Road works paint shop would be 'run in' on pilot duties, giving a 'cop' from outside the 84 division, such as a 61XX from the London area.

One day we walked up the platform to see what was heading a Wellington local in the bay platform. It was 5151. The driver was leaning out of the cab and he pointed under the bridge to a horizontal yellow board. "Do you know what this is?" he asked me. Based on my "I-Spy On a Train Journey", I suggested a speed restriction sign. "Good lad, want to come up and see what you can name in the cab"? I didn't need asking twice, though much beyond the obvious was beyond me. Sadly, as we were in the station I was not allowed to operate the whistle chain. Despite it not being a cop, I was thereafter always pleased to see 5151 and wave to the crew.

Footnote: - 5151 transferred from Stafford Road to Kidderminster MPD in October 1960 and was then seen regularly on Severn Valley and Wyre Forest lines. Sadly withdrawal occurred in August 1962 and 5151 went for scrap to Cashmores, Great Bridge, not far from where John enjoyed his cab visit.

Dave Massey