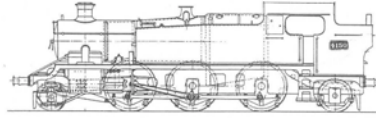


The 4150 Fund 2015 Newsletter



www.4150.org.uk

The aim of the Fund is to restore the steam locomotive to full working order to run on the S.V.R.

Chairman's Report: This is a most important period in the Fund's history, as within 12 months work on our boiler should commence. Although at first glance the fund looks financially healthy, a lot more money needs to be raised to finance the boiler overhaul. Therefore this is going to be the year of the big push and if you can, now would be the time to take out a standing order or make a single one off share application. Following the resignation from the committee of Derek Brixey 12 months ago, the committee has been running light, so we took the decision to recruit a replacement. After some enquiries amongst the workforce 2 candidates came forward and the old maxim of two heads being better than one, it was decided to co-opt them both onto the committee and offer them for election at the AGM.

Dave Mcfall will be heading publicity and fundraising, he has already organised the successful brake van trip and is planning more. Terry Howes has been one of the team involved in the building of the bunker and the tanks so brings some more practical engineering ability to the committee.

If you all agree on a vote they will become permanent members. All other members offer themselves up for another year of service.

This year has been another successful one for the fund with the tanks nearing completion, chimney bought and machined, and various other components ordered or ready for fitting. More details of the engineering side will follow.

Despite the terrible weather I would like to thank all the volunteers and paid staff who turned up at the Peep Behind The Scenes and helped to make the event a success, next year we hope to add the newly constructed diesel depot to the event.

The financial situation is still quite healthy but our treasurer will give you more details in his report.

The Committee is currently investigating the most cost effective way of getting the tanks and bunker riveted, and also boiler work costs.

The 4150 Fund is represented by myself, Mike Hutt and Peter Willoughby at the full locomotive committee agreement meetings. I have arranged for Columb Howell who serves on the small working group carrying out negotiations with the Severn Valley Railway Company, to give us an update on any progress at our AGM after which we need to make a very important decision. (See item 10 on the agenda).

Secretary's Report: I know I mention this every year but where possible we still need more Shareholders to move to email as the price of postage and printing only ever go up. I appreciate some of you do not have access to a computer and there will always be a need to distribute a number of hard copies but we need to keep this to a minimum. Another advantage will come from being better informed on events like the excellent well supported and organised Brake Van Trips; as the day of steaming **4150** gets ever closer that need will become even greater. Our **Peep Behind the Scenes Day** will be on **Saturday 18th July**, and we are hoping to have a publicity table at the SVR Members weekends, assistance and suggestions are as always welcomed and will be very much appreciated. The **2015 AGM is on Saturday 21st February** at Kidderminster Railway Museum.

ENGINEERING REPORT: Work during the last 12 months has inevitably concentrated on completing fabrication of the new sidetanks, and it's pleasing to be able to report that we are almost there. We've got all of the steel sheets we need for the inside faces of the tanks, pre-formed to the correct profile, and these only need to have four straightforward cut-outs to accommodate the downslope at the front of the tanks and the profile of the curved splashers on the fireman's side. The driver's side splasher is straight and level, which enabled the sheets for that side to be ordered to the correct depth at the outset. These cut-outs might have been done already but for the fact that at the time of writing our plasma cutter is out of action with a sheared-off electrode. We've also got all of the fittings needed to complete the tops of the tanks - fillers, mushroom vents, lifting eyes, inspection covers, and on the fireman's side a fire iron rest. Seeing these finally sitting in place really is a wonderful sight after all the hard work that has gone into getting this far.

The only items still to be acquired are four 10mm stiffening plates which go under the lifting eyes and spread the weight of the tanks across the two heavy longitudinal angles which run the length of the top of the tanks, so that the relatively thin top sheet doesn't have to carry the full weight. Wear plates are welded adjacent to the lifting eyes to ensure that friction between the eye itself and the tank top doesn't risk causing a hole in the tank – Swindon thought of everything!

As expected, the inside sheets of the tanks proved to be far more complex than the flat outside sheets. For a start, the widths of the tanks are tapered inwards from both front and back towards their centre, in order to clear the front corners of the firebox which protrude somewhat. Even worse, the vertical profile of the inner sides contains two dog-legs which enable the tanks to maximise water capacity without impinging on the profile of the boiler. This meant that no less than 18 angles which locate the inner edges of the baffles and stretchers of the tanks had to be fabricated to that internal profile, involving a great deal of cutting and welding. Fabricating the splashers proved to be equally challenging. We had considered squaring these off, but we were able to get both angle and sheet rolled to the required three foot radius, meaning we could replicate exactly the shape and structure of the original tanks.

As a further complication, two sets of vertical pipes go down through the middle of the water space in the tanks, and these had to be made, along with their associated flanges.

Two 3 inch diameter pipes at the front corners provide drainage from the top surface of the tanks, a means of getting rid of surplus water from rain or over-filling of the tanks, and helping to keep the fireman's feet dry. Near the centre of the tanks, larger 6 inch diameter pipes provide a path up through the tank for the water feed pipes from the injectors up to the clacks and thence into the boiler. There's insufficient space between the tanks and the boiler for these feed pipes, so Swindon had no alternative but to take them up through the middle of the tanks.

Like the bunker, the tanks are currently bolted together temporarily, and what still has to be done of course is to replace all the temporary bolts with permanent rivets, plus welding of those seams which are internal and not visible from outside. A rough assessment suggests there are about 1,800 rivets to go into the tanks, meaning that we must have drilled 3,600 holes in the tank sheets and in the angles which form a framework to support them. We've certainly had our money's worth from our trusty magnetic drill, still in regular use. Many of the rivets will be very straightforward, but those in the tank corners and those in locations where space is very restricted (particularly in the cab area) will be quite a challenge. It will be critically important to get the order of the riveting and welding correct if we are to avoid boxing ourselves into a corner from which there's no escape!

Away from the tanks, work has continued on completing the machining of the cylinder drain cocks, a major task including machining spindles (in stainless steel) and end caps, and forming copper tail pipes. A couple of very much larger items arrived during the year when we acquired new chimney and blower ring castings. Our original chimney had serious cracks in the casting, and we took the opportunity of ordering a new one when the SVR's pattern was used to cast one for sister engine 5199 at Llangollen. Dave Insull has machined the chimney in his spare time on Bridgnorth's massive vertical borer, and has since moved on to the more complicated machining of the blower ring. Dave is assembling all of the smokebox fittings, and has established that we will need to have some flame-cut flanges made to replace the corroded originals. He has also, during the last year, been refurbishing the float mechanism, now ready to be installed in the fireman's side tank.

Castings for the two remaining cab fittings not yet accounted for, namely the steam heat elbow and the pressure gauge shut-off cock, have recently been acquired, and are in line for machining in the near future. By good fortune we were able to move our new set of superheater elements from Tyseley to Bewdley via Bridgnorth courtesy of the SVR van which had made a delivery to Tyseley and had space for our elements on the return trip. So they are now stowed away securely, away from the elements you might say, in our container.

With the major tasks of the bunker and the tanks virtually complete apart from riveting and welding, attention turns to the many other jobs which need to be done before and during the boiler overhaul.

Briefly, these include fabrication of a new ashpan, rolling and fitting the firebox cladding, fitting of the already pre-formed boiler cladding, making new handrails, new sand delivery pipes, new cab doors, new copper pipework to the water valves and injectors, designing and fitting the cab floor, modifying and fitting our steam pipe covers, and finishing off various jobs which are under way but need completing – valve and cylinder cladding, the new vacuum through pipe, and front-end platework, plus all the pipework for the cab fittings, which is one job which will have to be put on hold until the loco is in a more secure environment..

One interesting event which has come to light recently is that 4150 was involved in a collision when a relatively new engine just over a year old. Two photographs taken on Tyseley shed were advertised on E Bay, one showing 4150, the other 5022 Wigmore Castle, both locos with serious front-end damage. Our Secretary put in a successful bid, and we eagerly awaited delivery of the photos. Limited information on the back of the photos suggested that the collision occurred on 30 November 1948 at Lapworth, and we have subsequently found out that 4150 was running round its train at Lapworth in thick fog, having worked down previously from Birmingham. On this particular occasion, it was apparently doing so on the down main rather than using the slow lines as normal. We understand that while it was doing so, 5022 heading for Birmingham ran through a signal at danger in the fog, and a head-on collision ensued. We will investigate further, and include more details in the next newsletter. What we can say is that 4150 was sent to Swindon for repair, and is recorded as having received new cylinders in January 1949. It was in the works for 31 days, and was sent back to Stourbridge shed on 14 January.

We suspect that a complete new front end had to be fitted, and the parts required were no doubt available from the production line as it were, as the very last batch of 41xx's were being outshopped at the time. For some time we have been aware of some heavy welds at the front end of the loco, and it seems we may now have an explanation!

We have also recently acquired a copy of 4150's Engine History Sheet from the National Archive at Kew. This fascinating document details the various overhauls received by the loco, and records the identity of the boilers fitted and the mileages worked between overhauls, from its build date of 5 June 1947 until 28 December 1963 when such recording ceased. For an engine with a relatively short life, 4150 has the distinction of having had overhauls at all four of the major GWR workshops, or Factories as they are referred to in the History Sheet – Heavy Generals at Swindon (twice, in 1953 and 1963), and Caerphilly (1956), and Heavy Intermediates at Stafford Road (1951) and Caerphilly again (1959), plus a couple of classified repairs at Newton Abbot. Not Oswestry, but that may have been rare for a 41xx. Surprisingly, 4150 had an Unclassified repair at Old Oak Common Shops lasting 29 days in March/April 1963 while shedded at Severn Tunnel Junction. There's no doubt an interesting story behind this event, which must have been somewhat unusual for a South Wales prairie tank. One particularly significant feature of the History Sheet is that it confirms that 4150 had a very late Heavy General overhaul at Swindon, being sent back to work at Severn Tunnel Junction on 19 November 1963, after no less than 85 days in the Factory. This was a mere 19 months before the loco was withdrawn from service, which made it an ideal candidate for rescue from Barry in the 1970's. It received a newly overhauled boiler during this Heavy General, numbered 5895, and we plan to delve into the boiler history in the near future – more in the next newsletter. Total mileage for 4150 up until 28 December 1963 was recorded as 355,024, which is not that high for a steam loco – plenty of life left!

Shareholder trips: In August we spent a most enjoyable day with two brake vans hauled by pannier tank 1501. The trip covered the whole line on a busy Saturday with plenty of passing trains. This year our brake van trips will be on Saturday 15th August and we have limited availability, cost this year £35. Due to safety rules you need to be an adult in good health. These will depart Bewdley at 9.00am and 12.10pm.

If you fancy something more luxurious this year we will be running an early evening train from Kidderminster to Bridgnorth and return on Saturday 23rd May for shareholders and their guests, tickets £15. This will be with the three Great Western toplight coaches and departs Kidderminster at 6.30pm for a leisurely run up the valley to Bridgnorth . We will have plenty of time for a visit to the Railwaymans Arms before the run back for connections to Birmingham .

We hope to make these regular events, open exclusively to our shareholders and to continue with these after 4150 enters service, for our shareholders enjoyment and in recognition of continued support.

Contact myself at davidmcfall@blueyonder.co.uk or visit the engine at Bewdley or Graham at the Erlestoke Manor Fund shop to book any of the trips.

Sponsorship: As you will have read we still need to raise a significant amount of money for the boiler, possibly £30 - 40K and rather than offer you the chance to sponsor a boiler tube at this stage, we thought it might be appealing to sponsor an item that would be visible and lasting. Most have already been restored and are ready to go on the loco whilst others are in need of finishing. All proceeds would go straight to the boiler overhaul.

All the items below will hopefully be visible from the platform or in the cab and will be permanently allocated to the sponsor. Your own part of 4150 for which you will also receive shares.

The whistle (something you could hear and maybe recognise before you even see it). £500

The copper chimney cap. £500 - Brass cab window frames have been sponsored but require toughened glass. £200

Brake valve. £300 - Boiler pressure gauge £250 - Cab side number plates £500 - Smoke box door handles. £250

Safety valve bonnet £500 - Two large copper injector feed pipes in cab £300 - Driver and fireman's seats (solid ash) £200

Boiler pressure gauge refurbishment £400 - Steam heat gauge £250 - ATC bell and box. £450 - Lubricator £800

Four cylinder pressure release valves. £50 each - Water gauge £250 - Rivets for tanks £300

-Rivets for bunker £150

Contact: davidmcfall@blueyonder.co.uk