

AGM engineering report 2020

The 12 months since the last report have been eventful to say the least.

Bahamas:

Following an active introductory year in 2019 there were hopes of even better in 2020, but sadly this was not to be. A meeting took place with WCRC in November and it was agreed that we would meet again in April 2020 to discuss how best we could be involved with railtours in the summer. Covid 19 of course put a stop to that. However during the winter 2019-2020 the annual routine boiler inspections were carried out together with the annual re-registration inspections for the loco and support coach. It had also been decided that to save a huge amount of work on each trip emptying the smokebox, a self cleaning system would be made and fitted during the winter. A trip was made to Carnforth to examine and measure equipment already successfully in use on Leander and Galatea, and with this information and the 'master mechanics' front end proportions, the equipment was designed, made at Ingrow, and then fitted over several days at Haworth. In due course the equipment demonstrated its value on the February trip from Oxenhope to Carlisle and return, when less than a tenth of the char normally needing to be cleared was present after the full round trip. Steaming was not affected, no doubt due to the improved draughting available from the double chimney, it being on record that the S/C equipment reduces the available draught by about 20%.

The engine ran well over the KWVR Spring Gala event, and was then cleaned down as usual. With the impending lockdown announced, the boiler was drained, and the engine put away in the stone shed at Haworth. Subsequently little work has been possible, but the TPWS/OTMR batteries were put on charge, and the piston rod gland packings have been re-gapped as they were starting to leak a little during the Gala. Two days of photo charters were run successfully on KWVR early in September, and it is hoped that the engine will be able to attend a special Gala on the Mid Hants Railway in October.

Support coach:

As with Bahamas, lockdown has prevented much work being done on the coach. However as restrictions have eased, interior and exterior cleaning has been done, the batteries have been on charge, and the annual grease inspection of the axle bearings has been carried out. Following a brake test, the coach was taken for an 'exercise' run to Keighley and back early in August.

Coal Tank:

Following the decision to stop the engine early due to the problem with perforation of tubes, arrangements were made for a group of four Hope Cement Works apprentices to come to Ingrow and assist with dismantling work. This took place over three days last December. The

involvement of the apprentices was of great assistance, to the extent that the boiler was ready for lifting over the following weekend. The apprentices themselves enjoyed helping with a project unique in their experience.

Removal of the boiler entailed removal of the side tanks and cab as well as attached piping and fittings. With the boiler placed on stands outside the shed, the tanks and cab have been replaced on the engine to keep them safe and out of the way.

The tubes were then removed, and the holes in the front tubeplate dressed, such that the boiler was ready for the initial inspection by British Engineering Services early in March. Then followed lockdown! The delayed inspection finally took place in July, and supported by the ultrasonic thickness readings we had taken, the inspector was satisfied that only a retube and replacement of 5 foundation ring rivets we had already removed, were needed. His next visit will be to witness the hydraulic test. The new tubes are now on order, expected to be delivered towards the end of September.

Subsequent work has been to fully needle-gun, power brush and primer paint the boiler shell. Hopefully this will help to preserve this 99 year old boiler for at least another decade!

Nunlow:

There have been further discussions on possible ways that Hope Cement works may be able to assist with the overhaul and re-tyring of this engine. However real progress will have to wait until the Coal Tank is complete once more.

50 ton crane:

During 2019 a considerable amount of work was completed, involving extensive repairs to the match wagon woodwork [reclaimed plastic boarding has been used where possible to avoid future rot problems]. Repairs were also completed to the rear relieving bogie, including new internal steelwork and a new deck. The crane is now in better structural condition than at any time in our nearly 40 years ownership.

This work was complete in time for the initial lifts for the new bridge 11 [just south of Ingrow tunnel], and this was well in hand when the lockdown intervened. The crane, SR brakevan and Palvan were therefore recovered for storage at Haworth, and we had to sit it out until some limited work was again possible in June.

The Railway had been able to plan a re-start on the Bridge 11 work for July, and the crane team therefore spent time re preparing the crane and vehicles – draining water from [30] axleboxes, and preparing the boiler for its delayed annual inspections. The lifting tackle and crane functional tests were also carried out, and all was ready for the bridge work to start in mid July. The amount of labouring involved in setting the crane up for the lifting operations was [as always with these old cranes] huge. To obtain the necessary radius for lifting, the front end of the crane carriage had to be set right on the edge of the south abutment, consequently the

match wagon and north relieving bogie had to be removed and 'parked' down the bank. All of this work was of course taking place on a 1:56 gradient, requiring great care when any moves were carried out.

All was done successfully, and the Railway has conveyed its very grateful thanks for the use of the crane and the professionalism of our team. The crane has again been used in August to lift the L&Y brake for a long overdue bogie exam, and to replace L&Y no 957's boiler into the frames. It remains at Haworth for the time being while some attention is given to two axleboxes, using the wheeldrop. This work will be complete and the crane back at Ingrow by the time of the AGM.

James:

Due to the prevailing circumstances little has been done to this loco after the full repaint and fitting of vacuum brake equipment last year. We were at least able to get the engine inside the shed at the start of lockdown, so it has been secure for the last several months. Checks on bearings and a trial run up of the engine have been carried out, the cooling water pump has been overhauled, and the loco is available for use as required.

SR van, Palvan, Hybar wagon:

In preparation for the moves of these vehicles for the Bridge 11 work, attention has been given to axleboxes, springs, and brake gear, such that these vehicles are available for 'main line' running as required.

As usual, we owe many thanks for the dedication of the small engineering team to keep our loco's and rolling stock in order, and operating them, as in the case of the crane, for the greater good of the Railway.

S.C.Allsop

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