



## CHAIRMAN'S UPDATE – JANUARY 2024

It's been a busy January and although the railway is closed to visitors there has been a great deal going on and, as ever, the dedication and incredible effort being made by everyone is truly amazing - especially given some of the weather we have experienced in January!

I don't seem to have been at the railway any less, although, sadly, there hasn't been any pie - I can't wait for half term! Mrs C had hoped she might be seeing more of me, what with the railway being closed, but no such luck I'm afraid. My absence from home has been compounded as I'm now spending two days a week in the West Midlands for work as well.

I have asked various people to write sections of this update to bring a wider perspective on what has been happening during January. As you can see, it is quite phenomenal just how much is going on.

### Infrastructure

There are times in the year when regular services are suspended, and the infrastructure department gets full possession of the line to make repairs and upgrades to the track which simply cannot be contemplated when the normal timetable is in operation. This year's winter engineering work is split into two halves around February half-term week, when trains are timetabled. Since the beginning of January, the engineering possession has been focused on Sheffield Park, with the relaying of the track through platform 2 together with other essential works being carried out at the southern end of platform 1.

The track through platform 1 was re-laid some years ago following essential drainage work, but it has now been necessary to complete a similar task on platform 2 to eliminate problems which have been evident, probably since the line was first built. In the early days of construction, drainage of the formation was a simple matter of laying the track on whatever ballast was available – often, as was the case with Sheffield Park, shingle from the coast was used. This was later supplemented with drainage pipes beneath the ballast which works to a degree but, when there is clay beneath, then alternating wet and dry conditions lead to instability. When the clay is wet, the passage of trains causes the clay to be pumped up under the ballast, eventually allowing the track to move up and down. Even with a good layer of ballast it becomes impossible to tamp the track properly to maintain a level. The modern method of construction which we now apply to all relays at the Bluebell uses a sandwich of a 'Terram' membrane and polythene on which the ballast is laid, and with a drainage system to convey the water away - which means the (clay) sub structure never becomes wet. In the case of platform 2 a French drain has been laid down the length of the line in a trench beneath the ballast protected by the polythene and Terram fabric with the flow directed northwards towards the river. This should eliminate previous problems and, with proper tamping, will maintain the track level relative to the platform surface. Secondhand concrete bullhead sleepers are replacing the wooden sleepers, matching those on platform 1, but the rail itself still has



some life left and is being reused, but with the ends shortened by about two feet to make clean joints which are truer than the existing joints, some of which had become crippled. While excavation was taking place to create the new formation we have taken the opportunity to install a run of concrete supports known as stools adjacent to the platform. These will eventually support point rodding which will appear when the new signal box comes into operation.

Over on platform 1 at the south end, from the ice cream cabin to the foot crossing, the platform surface has been dug up allowing several problems to be corrected. The existing platform level has never been correct and the blue engineering brick edging on the dock has been lowered to match the platform slabs. With the sub surface exposed we have taken the opportunity to install new ducting for cabling as well as rebuilding the corbelled edge under the platform slabs – several of which needed to be replaced as well. Other work has involved replacing the beams above the point rodding compensator recess, adding a new manhole in the platform, and levelling the grids by the water column so they no longer present a trip hazard. A new lamp will also be installed by the foot crossing.

Some years ago, the steps on the platform 2 side of the foot bridge were replaced and it has now become necessary to replace those on the platform 1 side. So, while platform 1 is a secure building site the opportunity has been taken to do this work at the same time. Each step is supported on specially designed brackets which have been heavily galvanized and fixed to the bridge structure with stainless steel bolts. Treated timber has been used for the replacement steps which are covered by a non-slip surface section.

Points 7A, at the south end of platform 2, will be re-laid on new timbers and then connected to the new track which will allow tamping to take place, bringing the formation up to the correct level. When all the work is complete, the possession can be given up and the railway handed back to the operating department so that trains can run again. This will only be for a short while though, during half term. After then, the 'Orange Army' will be moving north towards the bottom of Freshfield bank, to relay the last section of old track and thus to finally join up new track all the way from Sheffield Park to Horsted Keynes.

### Carriage & Wagon

Car 54 has been completed except for one last coat of varnish which will be done in March. It is now undergoing extensive testing and commissioning using the Class '73' ED.

We will shortly have contractors in to create the fire wall between 'D' road and 'E' road. With the consequent reduction of capacity in 'E' Road we have had to delay completion of the Bicester Mk1 and the Hastings Maunsell Brake. These will be done by the summer.

Work progresses well on 'BY' 419 which is being made waterproof and painted as that will become the Carriage Shop store.



The 'PMV' for the Thumper Group has had its new roof covering applied and there is some other remedial work going on there.

5034 (our other Mk1 disabled carriage) is now green at the north end. Work has picked up apace on the project, and we hope for this vehicle to re-enter traffic in early 2025.

The 'BG' has been stripped and as we have it apart, we have taken the opportunity to do work now that would have needed to be done in 5 years' time anyway. Many people have been saying we had bought a basket case, but I can give an assurance we did not. It was in good condition but with some areas needing attention - and we have dealt with those as well as doing work that would have needed to be done in the medium term. We are taking some sets of doors out as well as putting in window frames (as this was an early Mk1 it didn't have the window frames, which made water ingress a common issue).

The Golden Arrow is in for annual maintenance and Car 64 and Fingall have been internally steam cleaned and dried. Work is being done to some of the internal marquetry as well as some changing of carpet pieces and other preventative maintenance work.

Work is now turning to routine maintenance of the running fleet and, in early February, 4941 will emerge from the paint shop having had remedial work and a touch up.

### Loco Engineering

#### 73082 CAMELOT

- 3 x defective boiler stays changed, including removal of running plate and firebox cladding. Stays machined inhouse.
- The remaining firebox stays ultrasonically tested and passed as sound.
- 15 x firebox patch screws replaced; 5 x more to do.
- Ashpan lower half removed for repair, including new hopper sections and new sides.
- A new spark-arrestor is underway, all framework fabricated, awaiting mesh sections to complete.
- New stainless steel blowdown silencer fabricated.
- Boiler clack valves removed for the valves and seats to be machined.
- Centre driving axle removed for measurement of lateral clearance - also to aid changing bearing springs and access for the ashpan works.
- All motion rods were removed for piston and valve examination.
- Piston valve liners rebored, with new valve heads and rings underway. New valve spindle bushes in production in the machine shop.
- Main pistons removed for examination, with new rings on order.

The loco will be washed out in February for its annual boiler exam booked for March.



80151

- Piston and valve exam well underway; main piston rings replaced from stock.
- Piston valve liners cleaned and new valve rings on order.
- One piston valve spindle is bent and requires replacement: on order for end of February delivery.
- New stainless steel blowdown silencer fabricated 'in house'.
- Boiler clacks removed for the valve seats to be machined.
  
- Injector steam valves were both removed for seats to be machined, also new valve gland bodies in production.
- Drain cock valve removed for repair and examination.
- Boiler washed out for annual exam.
- All boiler stays ultrasonically tested and passed as sound.
- New spark arrestor fabricated, await mesh delivery to finish.

80151 annual boiler exam to be done with 73082 to reduce inspection costs, and to have this work done out of season.

72

- All boiler stays have been ultrasonically tested and passed as sound.

65

- Boiler washed out and examined.
- A number of washout plug holes reworked.
- All boiler stays ultrasonically tested and passed as OK for service.

178

- Driving wheels changed from 178 to 323 due to a cracked wheel on the 'blue' set of wheels. The 'green' wheels will be used on 323. This was achieved by being able to lift a complete 'P' class in the loco works from one set of driving wheels to another. The 'blue' wheels are now being painted green by the Tuesday painters.

323

- The frames are being worked on, with the horn stays being the current focus, to improve their fit.
- The boiler has been subject to further non-destructive testing (NDT) and following this the lower part of the backhead has been removed for replacement.



- The 'Green' wheelsets have passed ultrasonic axle testing and await the removal of the axle boxes and springs.

541

- Loco works staff have been to Devon to inspect the boiler and frames of 541, and to agree the 'plan of attack'.
- Loco wheels have had their tyres turned and are back at Leaky Finders' works in Devon.
- All defective platework and boiler stays have been removed as per the plan; NDT has also been carried out on the copper platework to check for star fracturing.
- The loco drag box has been removed and will require replacement.

928

- New crown stay sling brackets have arrived from Derbyshire for Stowe, these were drawn in-house, creating the CAD files used to produce the new parts.

6989

- The boiler has been washed out and the loco is ready for annual maintenance.

263

- Wheelset works ongoing at SDRE; old tyres removed and outside of wheel sets machined.
- Cylinder patterns are being made at East Coast Castings in Norfolk.

### The Thumper

1305

The gang have been at Sheffield Park and during the month have removed all the larger underframe equipment, two fuel tanks, two battery boxes, the compressor, the traction equipment case, the AWS case and receiver, the traction resistance bank and all the air reservoirs. Most of these tasks utilised the forklift truck.

This has allowed the underframe cleanup to begin, as well as cleaning up all the removed parts and the non-powered bogies on both coaches using the usual scrapers but also the Sheffield Park steam cleaner - which we initially filled with diesel emptied from the fuel tanks removed from 1305.

Roof access, using the Sheffield Park scissor lift, allowed the exhaust cowl and roof plate to be removed for repair - as it currently leaks, allowing rainwater to fall over the main generator.



Other tasks have been the continuation of the DMBS cab front stripping back to bare green fibreglass, this included the removal of everything - apart from the 27-way jumper and receptacle - for better access to strip the ducts that house these and the air pipes, plus the removal of the heater wiring conduit from the underframe as this needs replacement.

153

The canvas has been fitted to the roof and only requires the rain strips and stove chimney cowl to be made and fitted and then all is done - which was all we needed to be in C&W for (the cowl can be done at a later date as a hole hasn't been cut in the canvas for the chimney yet).

Rotten planks have been identified and replacements have been found/purchased; these are currently in undercoat (at the time of writing).

The replacement doors have also been looked at and will be replaced as and when, but this isn't a job needing to be done in C&W either.

The remaining planks which are still serviceable have been rubbed down and are in the process of being repainted.

### Commercial

There has been a lot of activity! We are in the process of changing our till system to a much better and more integrated one. We have a new website 'in build' and we have a lot going on with marketing campaigns and with generally organising the year. It is all pretty manic – we have even started planning Christmas again!

### **And finally...**

We have had a strong start to the year with the tremendous number of projects we are undertaking. Of course, we need to keep funding these and so we need to continue our focus on getting ever more visitors in to ensure we remain a viable business. We have some big challenges facing us in 2024, some of which are driven by world events and which can send massive shocks through economies. For as much as we did well in 2023, this year will be even tougher and take more work. But we are Bluebell and we can do it.

Paul Churchman  
Chairman  
30<sup>th</sup> January 2024