

Swanage Railway Trust 4TC project update – Spring 2024

Welcome to the Spring 2024 update to our supporters – this update is not just about the restoration of our 4TC unit, but also regarding the group itself and some of the struggles we have faced since our last update.

Firstly, an apology

We are sincerely sorry for the lack of proper updates since 2020 – we accept that this is not good enough, and we must thank you for continuing to support us even with the lack of updates. Unfortunately, we have suffered from a lack of volunteers to carry out the admin involved in producing regular updates. Whilst one of our volunteers (Alan) produces an article for the quarterly Swanage Railway Trust magazine (which hopefully some of you have seen), we have let regular direct communication with our supporters slip. We have a small core team that has been busy carrying out physical restoration work on 70824 as you will read below, but unfortunately the members of this team (myself included) have struggled to keep up with the admin work too as we are all involved in many other Swanage Railway related roles and projects (and all have full-time jobs too!). Hopefully you can accept our apology and continue to support us please – we plan to do better going forward and have had a couple of extra volunteers join the team to help with financial admin and publicity. We also have a new website in progress.

Driving Trailer Standard Open (DTSO) 76322

Since our last major update 76322's bodywork and bogie restoration at Rampart was completed and the coach returned to Swanage at the end of March 2021. This coach is now in storage at Harmans Cross awaiting its turn on the lifting jacks at Swanage to complete the repairs to cable and pipework theft damage on the underframe. Fortunately, we have most of the materials required for this work in stock. We also need to fit tarpaulins to this coach at some point soon to prevent the overhauled bodywork from suffering any damage or deterioration.



76322 being unloaded at Norden after bodywork restoration and bogie overhaul (30th March 2021)

Trailer Brake Standard Corridor (TBSK) 70824

Since our last update a huge amount of work has taken place on 70824. It is now almost mechanically and electrically complete, with the air system tested, and most of the electrical system tested including the Compressor and Motor Generator – both of which work perfectly! Electrically there's just the compartment heaters left to fit and test once the new lino flooring is fitted - more on this under fundraising. Hopefully it is now back on its bogies for the last time too. The full list of work carried out by our small team of volunteers since May 2023 is as follows:

Bogies:

- Brake cylinder pipework overhauled.
- Brake rigging freed off, examined & lubricated.
- Brake blocks replaced.

- Slack adjusters tested and set up.
- Brake cylinders tested.
- Lateral dampers replaced with overhauled units.
- Bogie frames and wheelsets needle gunned and painted.

Air system:

- Replacement air reservoirs made by contractor and fitted.
- Air system water/dirt filters overhauled.
- All isolating cocks overhauled.
- Damaged and stolen pipework replaced - approximately 50% of pipework.
- System pressure tested.
- Faulty compressor governor replaced.

Electrical:

- Vehicle lighting wiring examined and tested.
- ETH power cables replaced due to being stolen.
- End to end control, lighting and heating wiring completely replaced due to be stolen or damaged.
- Auxiliary control cubicle over 75% new rewired.
- Significant replacement of wiring conduit due to damage caused during theft of wiring.
- Replacement batteries fitted.
- Compartment heater conduit and wiring replaced due to corrosion.
- Jumper sockets rewired and fitted.
- Compressor examined and repaired.
- Motor Generator set examined.
- High voltage electrics tested off a shore supply with compressor and motor generator both working for first time in at least 23 years. Heaters that are still fitted worked too.
- PA system tested.

Underframe/exterior:

- Battery boxes repaired.
- Entire underframe cleaned and painted.
- Gangway faceplates needle gunned and painted.
- Shore supply switch box repaired.

Interior work:

- Compartment floors and bearers repaired or replaced as required.
- Toilet floor repaired.
- Corridor floor and bearers repaired or replaced as required.
- Walls between compartments and toilet repaired as required.
- New floor support "top hat" sections welded in as required.

Next up for 70824 is the laying of new linoleum in the four compartments and toilet. This will then allow the compartment heaters and seats to be refitted, which in turn will clear most things stored in the luggage van enabling this area to be completed too. Then there is the toilet water tank to sort out as there is a leak to investigate, and all of the toilet pipework to replace as this was stolen. Then comes laying of linoleum in the corridor and guards office/luggage areas, followed by refitting of internal sliding doors and other interior fittings.

A selection of photos of work carried out over the last year on 70824 can be found on the last few pages of this update.

DTSO 76275

Unfortunately, 76275 is now suffering from bodywork deterioration – this is down to a combination of having never received a bodywork overhaul in preservation, and being stored outside in all weathers since it arrived on the railway in early 2017. It only received a paint job and some electrical work before it departed St Leonards Depot, and unfortunately has spent a few of the years since it arrived on the railway without tarpaulins fitted and some of the windows are leaking badly. Fortunately, it is nowhere near as bad as 76322 was before it was restored, and we are now in the process of getting quotes to carry out the necessary bodywork repairs and a repaint.

Trailer First Corridor (TFK) 70855

In store at Harmans Cross awaiting funds for its restoration.

4BIG Buffet Coach 69322

In store at Harmans Cross awaiting funds for its restoration.

DTSO 76298

Stored at Harmans Cross.

DTSOs 76301 & 76302

These two coaches arrived on the railway last year after they were donated to us by Bellingham Heritage Centre in Northumberland. They originate from 4TC unit 417. They were due to be replaced at Bellingham with some Mk3 coaches, and if we hadn't given them a home they would have most likely gone for scrap. These coaches are also in store at Harmans Cross, and whilst there are no immediate plans to restore either of them, 76302 for example will yield more than enough serviceable seat backs and bases to complete the interiors of 76275 and 76322, avoiding the costly task of having to get their existing seats reupholstered. Both coaches also appear to have good bogies under them – another item that might prove very useful and cost saving in the future. We may look to restore one of them as a spare driving trailer in the long term.

Whilst the coaches themselves were free to us, the cost of transporting them from Northumberland to Dorset was quite significant and made a dent in the group's finances to the tune of £8,000. If you would be interesting in contributing to cover this cost, then please see the fundraising section below.

Fundraising

Whilst the restoration of TBSK 70824 has progressed significantly, this has inevitably depleted our existing funds. Our next major outlay for 70824 is the linoleum flooring. This work will cost around £4,200 having asked three flooring companies to quote for the work. We are breaking this work down in to two stages – phase 1 is the compartments and toilet, and phase 2 is the corridor/vestibules, Guard's office, and luggage area.

Each of the four compartments and the one toilet will cost approximately £600 each for the linoleum to be laid, and we are looking for five supporters to sponsor this work. If you would like to sponsor one or more compartment/toilet then please get in touch by replying to the email with which this update was sent from (4tc@swanagerailway.co.uk), or by using of one of the donation options below.

We also mentioned earlier the cost of moving Driving Trailers 76301 & 76302 to Dorset (£8,000) – if you would be interested in helping to cover the cost of bringing these coaches back to Dorset then also please get in touch. Whilst this money has already been spent, it would be great if we were able to reimburse some of the costs to the group's funding reserves to enable restoration work to continue at the current pace.

Any funding received is greatly appreciated and helps get us closer to our ultimate aim of having the TC running.

If you would like to donate, it can be done in the following ways:

- visit www.4tcgroup.co.uk and click on the blue "Donate Now" button
- direct bank transfer to Account Number 13462420, Sort Code 20-68-79
- or by cheque payable to "Swanage Railway Trust - 4TC Group" and posted to "Swanage Railway Trust - 4TC Group, Station house, Swanage, BH19 1HB.

Thank you for taking the time to read this update and thank you for your continued support.

Dan Bennett, Swanage Railway Trust 4TC Group Trustee. dan.bennett@swanagerailway.co.uk

On the next few pages is a selection of photos showing some of the work undertaken on TBSK 70824.



TBSK 70824 lifted off its bogies (13th May 2023)

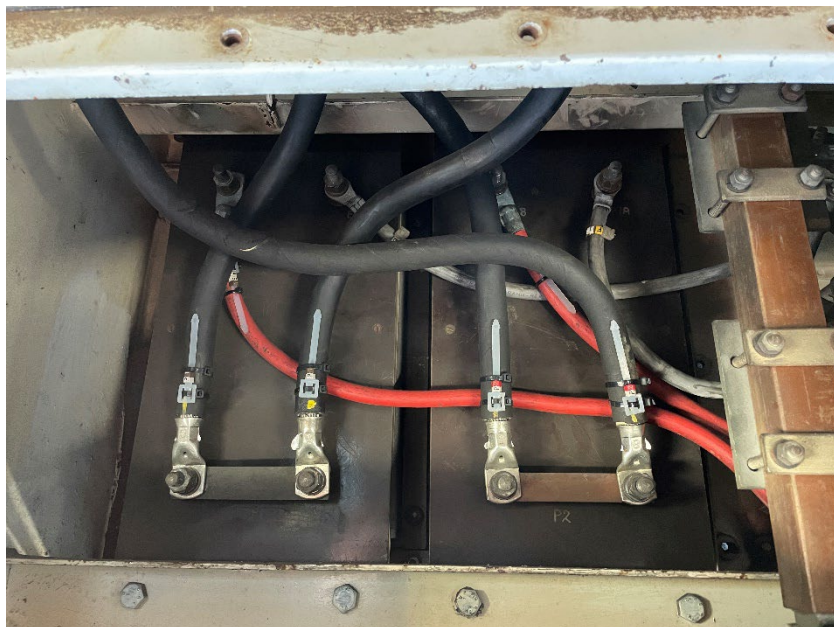


New conduit fitted to replace sections damaged when cable was stolen (above and below)





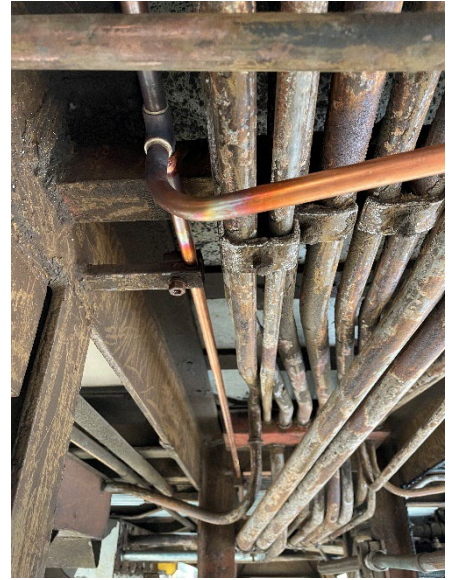
New ETH cables being run in to auxiliary supply case



New ETH supply cables terminated in rear of supply case



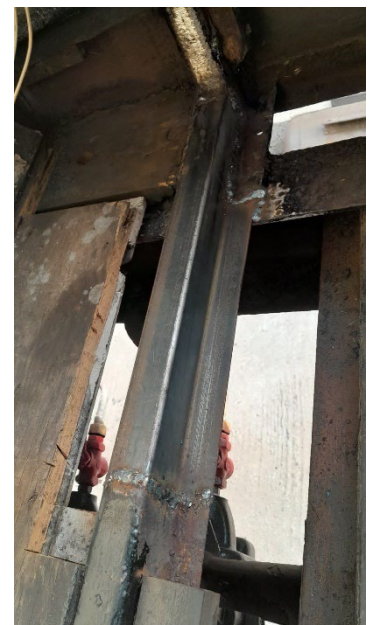
Finished supply case after welding repairs to damage front completed



New brake pipework fitted to replace stolen sections



More new brake pipework fitted to replace stolen sections



Before and after welding in new floor "top hat" support section



Battery box after rebuilding



Replacement batteries fitted (ex-Class 442!)



Finished battery box



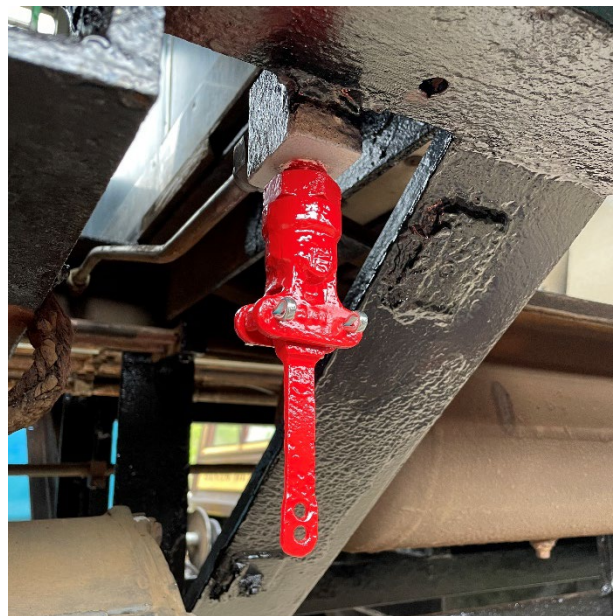
New terminal rails and mouting board installed, and new 27-way control wiring and heating wiring terminated



Air filter/strainer stripped for overhaul



Overhauled air filter/strainer



Overhauled brake release valve



Compartment floor bearers being replaced



Old air reservoirs after removal – both subsequently failed testing due to corrosion



£2,900 later and we had two new air reservoirs ready to fit. Fortunately, one of our regular volunteers offered to sponsor their fabrication thus avoiding depleting our funds



Old compartment heating conduit and wiring – as you can see it had seen better days!



New compartment heating conduit and wiring installed



Bogie during needle gunning to remove old paint and rust



Bogie after spraying black with anti-corrosive paint



And finally, yellow axlebox covers



Testing the corridor heaters



Measuring the output from the Motor Generator

A short video of the Motor Generator running can be found here <https://youtu.be/wselRy0HIP8>

A short video of the compressor running can be found here <https://youtu.be/rOEFyK09Fjw>



One of the compartments showing the repaired floor awaiting linoleum, and the refurbished reading lights being tested.