

45 RPM

45132 Restoration and Preservation Magazine
Newsletter of the 45132 Supporters Group

Spring 2010 Edition



Roger welcomes visitors to our first open day, 27th February. Photo by visitor Mervyn Turvey.

INTRODUCTION

Welcome to this Spring edition of our newsletter. The major highlight of this edition is the progress of repairs to the Generator. Also there are details of our first ever open day, reports on engine room progress and details of track construction for the miniature railway.

PROGRESS

1. Generator Repairs



The Alternator Rotor separated from the main shaft. Photo by Mike Jacob.

As reported in the Winter Edition the Generator has been transferred to Bowers Ltd at Heanor in Derbyshire. Bowers were having problems separating the Alternator Rotor from the main armature shaft. We are pleased to report that this was successfully accomplished. They obtained advice from someone who used to work in Derby Works. It involved injecting glycerine under high pressure (reported as 40,000psi!) into the joint and then barring back the rotor with a few hefty hammer blows which resulted in it being successfully separated and there was no damage to the shaft or rotor.



The damaged Armature, minus the Alternator Rotor, on Stands. Photo by Mike Jacob.



Melting off brazing connecting ends of windings. Photo by Mike Jacob.

The picture captions should explain how the damaged armature windings are being prised back. Dave Hesketh of Bowers is now looking at whether they can butt braze new end pieces to each of the windings. It will be quite a tricky job, but if successful it will avoid having to extract the entire winding coils, and should save a lot of time and effort.



Heat-gun softens up the windings to ease prising them out. Photo by Mike Jacob.

With regards to repairing the field frame, which is much more extensively damaged, it will hopefully be a similar case of cutting out the damage and brazing in new copper strips. Bowers anticipate starting this during March.

We are obliged to Mike Jacob for supplying the above information and indeed the photographs he took of the work in progress during a visit to Bowers 13th February.



Top windings being prised out. Photo by Mike Jacob.



First set of top windings pulled back. Photo by Mike Jacob.



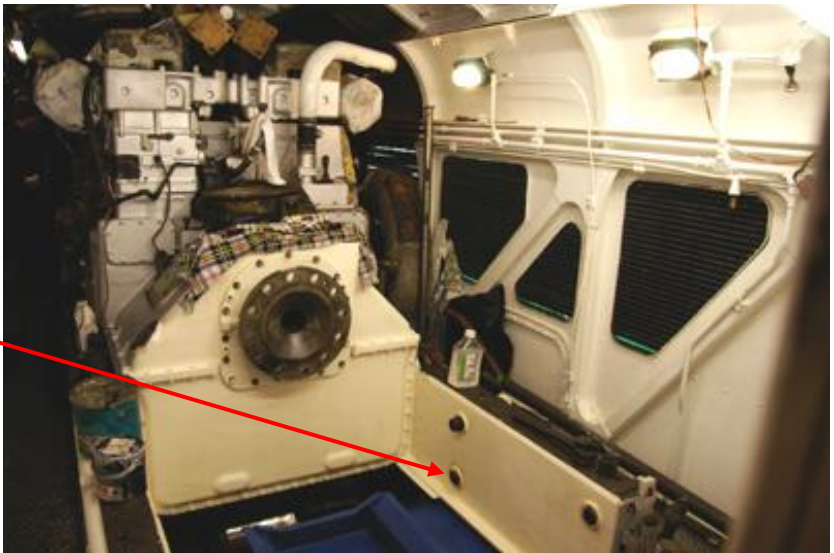
Damaged inner windings being knocked back. Photo by Mike Jacob.



Majority of damaged windings now pulled back and ends cropped. Photo by Mike Jacob.

2. Interior Bodywork

Engine Room re-painting has been curtailed due to the bad weather, with the exception of the engine itself, which Martin Pratt has been cleaning up and re-painting. However, much scraping of the remaining interior has been done with the south side wall virtually complete, north side approximately 60% done and a start has been made on the section above the electrical cubicle. The covers of the resistor banks have been transferred to Ropley and work has commenced on stripping them back to bare metal and repainting. Once the warmer weather returns then re-painting will re-commence and quickly transform the entire engine room appearance.



Last cross
slide
adjustment
bolt still in
situ

Engine, Gearbox and Interior 27th February. Photo by Mervyn Turvey.

Seven out of the eight cross slide adjustment bolts in the Generator Bedplates have now been removed but the last one remains stubbornly fixed in place. Even the special tool we made to release them has been damaged and is under repair. Currently the bolt is being soaked in oil whilst repairs and modifications to the special tool are undertaken.



Chris, Keith, James, Mike and Roger in action in the engine room.

3. Intercooler

This unit resembles a small version of a steam loco boiler. It is effectively a cylinder through which pass numerous small tubes which carry the water that cools the surrounding engine lubricating oil.



Intercooler with end cover removed for cleaning.

This has been stripped of its end covers to allow cleaning and refurbishment. The filters and end covers have already been cleaned. We are currently devising a method of cleaning the many small tubes passing through it.



Intercooler end cover undergoing cleaning.

4. Electrical

Various electrical clips that hold wire wound resistors in place have broken and those still intact appear ready to fracture at any time plus several variable resistors were in poor condition. Fortunately these are still available, a supplier has been found and replacements are now on order and due to be fitted soon.



Damaged resistors and clips that will need replacing.

Refurbishment of the Load Regulation resistor banks has commenced with all terminals being freed off, copper greased and reconnected.

The high-speed exhauster contactor that had been damaged has been successfully repaired and refitted.

5. Roof

The materials for repairing the roof section, which sits above the generator and houses the silencer, have been ordered. As Chris Churcher reports later, work will commence on this once our commitments for the Miniature Railway have been fulfilled.

ROUTINE MAINTENANCE

1. Triple Pump

The Triple Pump has been tested several times but the loco is now drained of water for the winter and the opportunity has been taken to refurbish the Intercooler as reported in the previous section.

2. Batteries

The batteries continue to be cleaned, topped up and charged regularly but they are only capable of running the triple pump for a few minutes. Several cells actually froze during the deeper frosts. However, they do not appear to have been damaged by this.

OPEN DAY

Another first for our group, we held our first ever open day and several 45132 Supporters Group Members took the opportunity to visit the loco and see for themselves the progress being made. They were escorted to and from the loco, shown around and provided with details of the generator repairs. The feedback from this exercise was 100% positive with some offers of help and publicity received. Thanks to all who took the trouble to attend.

FUNDRAISING

Apart from scrapping aluminium cans all other fundraising has been effectively curtailed by the bad weather.

45132 LOCO AND MINIATURE RAILWAY PROGRESS

Report compiled by Chris Churcher

Whilst work progresses on the generator and preparations are made for its return, it became clear during discussions that priority should be given to refurbishing the roof section that sits above the generator and also houses the silencer. This would then enable the temporary roof to be removed and replaced by the original as soon as the generator is refitted. The other priority is to complete repainting of the complete engine room.



Track panel production 20th February.

As far as the roof section is concerned, Ray Briscall and I will undertake this work at Ropley and most likely in the open as shed space is at a premium. With the replacement metal sections on order this work will be started in April. At the same time we should be able to restart engine room re-painting in hopefully warmer weather.

Other work continues on the loco as reported in this edition but at the same time it has been very busy on the Miniature Railway. We reported in the last edition that the old worn out Aluminium rails had been reclaimed by its previous owner and that the railway was to fund the purchase of materials to install brand new mild steel track to a much better standard.



Chris, James, Keith and Martin on track panel production duties 21st February.

The work in this area has been possible due to the dedicated efforts put in by group members Ray Briscall, James Churcher, Keith Hoddy, Martin Pratt, Dave Hill and myself. I arranged for materials to arrive in the correct order and times and then an effective production line system was initiated. This consisted of Keith aided by James, Martin or Dave pre-drilling pilot holes in almost 600 treated wooden sleepers using a specially made template. They also pre-drilled the ends of all the lengths of 6lb per yard flat-bottomed steel rail ready for the fishplates, again using a jig specifically designed for this task. Another 1 or sometimes 2 teams (myself, Ray, Martin and James) then assembled the track panels using gauges to control both sleeper spacing and maintain the correct 10¼” gauge throughout. The rails were secured to the sleepers by special plastic clips held in place by 40mm screws.

On Thursday 11th February Keith and myself took a lorry to collect the materials and work started the following Saturday. By the end of Sunday (14th) we had made our first 5 panels, each 6m in length.

Then the pace was stepped up and by the close of play the following Sunday (21st February) we had constructed 19 panels, which was enough to reinstate the majority of the line! This left approximately 7 more panels and two sets of points to complete the track construction. At the time of writing we are about to start track laying following a revised alignment being marked out with marker posts and a laser line.



9 panels here and another 10 by the container meant 19 had been constructed as night closed in on Sunday 21st February!

The aim is still to complete the construction and laying of track in time for the railways Thomas event, at Easter, when we will run the miniature railway for the enjoyment of our visitors, particularly the younger ones. The completion of the event will mark the start of the final phase of returning 45132 to action as we can then concentrate our efforts on her. We will have a further report on the miniature railway in the Summer edition of this newsletter.



Track panels being placed in position 28th February.

CONCLUSION

Once we conclude our activities on the Miniature Railway for the Easter Thomas event all our efforts will be fully concentrated on making 45132 ready to receive her generator back. As yet we have no firm date for this but we are hoping for the summer. Then we look forward to starting the re-commissioning but much other work remains to be done, such as re-instating No 1 Cab nose end.

As always we would appreciate your opinions of and any input to future editions of this newsletter. Your railway recollections, stories, photos or general information on Peaks and their travels would, I'm sure, be of interest. Also any constructive suggestions for format changes or other topics to be covered would be most welcome. We are also on the lookout for pictures, sightings and details of workings of our loco D22 / 45132, particularly in BR days. We are still looking for help with deciphering TOPS codes on the TOPS report for 45132 which we have.

Unless otherwise credited all photos are by the Editor.

CONTACT DETAILS

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Newsletter Contributions

Please send any comments, letters, photographs, sightings details or articles to the Editor, Ray Briscall, email ray.briscall@virgin.net, or to the address above.

Working on the Loco

All offers of help gratefully received. We are keen to hear from anybody who would like to work on the loco, particularly as we are now under pressure to make her ready to receive the generator back. No special skills are necessary (as can be seen by watching our efforts!) although anybody with metal fabrication, welding or electrical skills would be particularly welcome. A valid PTS is required to access the loco down the Alresford head shunt. However, please do not let this put you off as we can escort you there and back and generally look after you. Obtaining a PTS is quite straightforward and we can advise you – so whats stopping you? We are quite a friendly bunch and we certainly do not bite! Please use any of the contact methods on the previous page.



A freezing 9th January and whilst most of the country seems to have ground to a halt owner Roger Bray flanked by James and Chris Churcher gamely carry on.



33053 comes to the rescue after the Western Tank withdrew with a hot box whilst D3358 draws Bittern forward 21st February.