The Railcar Association Bulletin November 2013



Introduction

Once again I have the pleasure of reporting the full success of another Railcar Convention weekend. The Gloucestershire Warwickshire Railway opened its arms to delegates from across the UK and the efforts of the team there are to be commended. Whilst there is a full report covering the weekend included in this issue, I would like to offer my personal thanks to the Cotswold Diesel Railcar Group for hosting the event.

The other DMU themed event held in the past two months was the Mid Norfolk Railway's Multiple Matters weekend, now in its second year and featuring visiting traction for the first time. Whilst not wishing to "flood the market", it is encouraging to see another DMU gala which can hopefully become a regular event in the calendar, joining others such as the Llangollen and East Lancashire Railways. I believe it would be sustainable and desirable to have one DMU event a month to raise the profile of the (mostly) 1950's/1960's era machines we all preserve and enjoy.

We now enter one of the more quieter periods as railways wind down and volunteers become preoccupied with other commitments, although in some cases these "quieter" periods can produce much progress for maintenance and restoration projects.

19th Annual Railcar Convention

The 19th Annual Railcar Convention is to be held at the Llangollen Railway in Wales. This railway is arguably the No1 location for railcar preservation in the UK, having operated such vehicles every season since the 1980's and also boasting a fleet of eight operational vehicles, a figure currently matched only by the collection at the Ecclesbourne Valley.

The railway has been a leader for railcar preservation, the unique lottery funded Class 109 being based there and the only complete Class 100 set also in the collection. The (now association standard) maintenance regime was also developed and tested there. For several years the railcar group have run an annual gala in June with visiting traction each year.

This varied activity occurs in a picturesque setting along the seven mile line running between Llangollen and Carrog with five stations. A two mile extension to Corwen is also currently under construction.



The home fleet of Classes 104, 108, 109 and 127 will be available in use, with two extra vehicles, Class 104 M50447 and Class 105 M56456 also on site for inspection. These two vehicles are undergoing full rebuilds to a thorough standard.

The convention, held during the 60th anniversary of the introduction of first generation railcars, will be in October and will be separate and in addition to the (rather hectic for the group!) June gala. This will increase the opportunities for more personal activities to be organised for delegates. This is the first time a railway has hosted the convention for the third time, the Llangollen Railway having previously hosted in 1998 and also eight years ago in 2005.

As always, more details will be released as they are confirmed.

18th Annual Railcar Convention

Report by Paul Moxon

Introduction

For 2013, The Railcar Association's Eighteenth Annual Railcar Convention moved westwards to Gloucestershire on the Gloucestershire Warwickshire railway. Our thanks go to lan Butler and the Cotswold Diesel Railcar group and of course, the supporting act of the railway's operating staff. For a 3rd year, our annual meeting was pitched during two days of reasonable weather resulting in another excellent event.

Friday

Friday saw the usual driver experience and the TRA would like to thank the DMU group for managing to keep commercial pressures at bay and charging a reasonable price for participants. (Six other DMU groups enjoyed the delights of the GWSR's re-opened line.

Class 117 W51363, W59510 & W51405 provided a 3 car experience over the Winchcombe to Laverton section in the morning and the Winchcombe to Cheltenham Racecourse section in the afternoon whilst W55003 (Gloucester single unit) ran in the opposite order, the sets switching round at lunchtime. The 117 was running on 3 engines, so care had to be taken when stopping to conserve the vacuum. The 122 was a complete change and I regretted not taking up the return drive as it was quite spritely in its acceleration & braking.

Saturday

The DMU's ran vice a steam loco until early evening and the recently acquired 117 W51360 from Wirksworth was on display in the bay platform at Toddington. The brake van of this vehicle had been commandeered as a sales area by the Llangollen DMU group.

There was a mid morning Carriage & Wagon tour at Winchcombe with Richard Summers where delegates could see the very visible results of a legacy that had probably doubled the covered accommodation dedicated to restoring the railways sizeable collection of coaching stock.

There was also a very informative tour of the locomotive sheds at Toddington with a great deal of information on the lines steam & diesel fleet with adequate time being given to the delegates who wished to photograph the yard etc (Our thanks to the guide, whose name escaped this report!).

Formal Meeting

The meeting opened in (the new build) Winchcombe village hall and this year 39 delegates attended, a small decrease from last year.



W55003 and W51405 pass each other at Winchcombe, busy on driver experiences



A happy participant gets to grips with the controls of W55003



All of the Cotswold Diesel Railcar fleet together at Toddington on the Saturday

Paul (Moxon) welcomed everyone to the official part of the event and ran through the update of DMU activity in the UK over the last 12 months.

In line with 2011-2012, the last 12 months have again been one of quiet consolidation.

For the annual review last year's figures are in brackets:-

- Zero (1) units were added to the ranks of preserved DMU's.
- Seven (6) DMU's were returned to service.
- Three (19) railcars had restorations started (or restarted).
- Zero (7) cars were dismantled for spares and then scrapped, but there are a 101 power twin, a 115 and a pair of 127's that may not be long for this world.

History of the line

Neil Carr presented an interesting history of what has become the Gloucestershire & Warwickshire railway from the reasons for building it, rundown & closure. Of particular interest were the images depicting Gloucester single units running services in the late 60's, including their own unit W55003. Next was how the preservation group resurrected the railway from piecemeal from Toddington to Cheltenham Racecourse & then started extending northwards towards Broadway. Then disaster struck in the form of several embankment slips and whilst the railway raised funds for repairs, the DMU group formed; stepped in to run the Northern section (with hired units & a steep DMU learning curve!) until in 2012 the line was fully reopened again. For 2014, the railway is pressing on to Broadway with the group having similar ideas of running DMU shuttles until the extensions are joined.

Private Ownership

Richard Thornton raised discussion about private owners with "endangered species" of DMU's and asked if the Association would step in and purchase a vehicle to save it from being made extinct?

The Association responded by stating that most owners would consider offering such vehicles to them for the more active groups with the resources to tackle such projects.

Ian Bradley raised the point that current private owners should take steps to ensure their DMU's don't fall into the scrap man's clutches if they don't let their next of kin know the worth of their vehicles.

Evan Green-Hughes made the point that many railways won't take vehicles any more as everyone is aware as to how much it



A well filled meeting room



The democracy votes Paul in to remain as chairman



Association delegates at Winchcombe for the traditional group photo

costs to restore a railway vehicle and railways want an assurance hat there is sufficient funding available before taking vehicles on.

It was concluded that the TRA wouldn't be able to apply pressure, but could communicate with groups that have a proven track record to ensure any threatened vehicle.

Richard Thornton then gave the meeting a quick update of his Class 103, 56160 and detailed the restoration that had been completed so far.

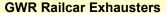
Historic Vehicle Classification

Chris Moxon updated the meeting on the "endangered species

5xxxx Brake Rigging Rebuilds

Trevor Daw and Ian Parker gave a brief presentation on the issues that had befallen the WMDMU group when they were rebuilding their 108 bogies and had come across poor repairs and the extensive use of "Huck" bolts on the framing.

They advocated the use of "Nylon6" to remanufacture bushes in the brake gear after tests on Mark 1 coaches on the SVR. They also showed images and samples of improved corridor connections with grease nipples fitted and scissors being zinc plated to improve corrosion resistance.



Trevor then described the exhausters he was restoring for the K&ESR's GWR Railcar & asked the floor if anyone knew why there was what appeared to be an anti-vacuum valve in the device and also commented on the fact that the exhauster had steel vanes fitted and that they had lasted well in the intervening 70 years.

Volunteer Retention

Evan Green-Hughes gave a presentation on volunteer motivation & retention. He listed the factors he felt had contributed to his group being the largest and arguably the most successful in the UK. These factors included:-

Group structure, communication with members, fostering the sense of identity, showing visible progress, Recruitment policy, provision of facilities (everyone has their mug hook) and members cherished.

Heater Fuel Conversion

Ian Butler gave a short presentation on converting their heaters to burn kerosene and outlined the pitfalls and success if people wanted to convert their 117's or trailer cars to work in this fashion.

He concluded by stating that his heaters burn around a litre of kerosene per hour in service.

Railcar of the Year 2013

After a guick canvas of opinion from the floor, it was agreed that there would be four nominations for Railcar of the Year 2013 to go forward to public vote during November, they are as follows:

- Class 101 51189/51803 (Keighley & Worth Valley)
- Class 108 M51566 (Dean Forest Railway)
- Class 119 W51073 (Ecclesbourne Valley Railway)
- TBA

A.O.B. & Discussion Topics TRA Constitution

rating" that was now in place on the associations site.



W55003 in service at Toddington over the weekend



At Cheltenham during the Fish & Chip special



Excellent destination

Paul Moxon offered in the interests of democracy to see if anyone wanted to take over the chair, but was told by the floor to

Stay put!

Chris Moxon was officially recognised as the TRA secretary.

Bio Fuels

Updates were heard from several groups with the following conclusions:-

- Bio fuels loosen any muck you have in your system
- 5xxxx DMU cars appear to be OK (at present levels of bio additives)
- The DFR recommend you add Anti-bug and lubricity additives to fuel tanks to avoid trouble.

Future Convention dates

- 2014 (confirmed) Llangollen reaffirmed their offer to host "Railcar 60" in October as a separate event to their own DMU gala in July.
- 2015 (provisional) The Ecclesbourne Railway would like to showcase their rapidly expanding fleet.
- 2016 (provisional) Chris Bull volunteered the Dean Forest Railway to hold the convention, 20 years after the idea of the TRA was formed

Derby Lightweight Group

Chris Lings outlined potential developments within the group looking after the remaining two car set & advised on the recent restoration progress with the unit.

The meeting closed at 16:20, and Paul Moxon gave another slide show entitled "DMU's in the 80's"



At Cheltenham during the Fish & Chip special



At Cheltenham during the Fish & Chip special

Fish & Chip Special

The special train went to Winchcombe with an appropriate destination applied. Beer, soft drinks and puddings were purchased and the obligatory group "seminar" was taken. The 117 then made its way to Cheltenham Racecourse where fish & chips were bought to the train.

Sunday

Extra DMU services also ran on the Sunday for those making a full weekend of the trip.

News

Bo'ness & Kinneil Railway: Class 126 Sc51043/Sc59404/Sc51017 was in service on both days of the Diesel Gala in July then did one return trip in October. Coolant will soon be drained for the winter, meaning it will not run again until the 2014 operating season.

Nene Valley Railway: Y7 Railcar 1212 has undertaken a number of duties in 2014. The year was always intended to be a low key year to bed her in and duties have included driver training, charter trains, thunderbird duties, photo charters and gala services whilst faults and teething issues have been ironed out. It is still to be confirmed, however 1212 is pencilled in to run a number of low season services on the NVR in 2014. When confirmed details will be posted on The International Railway Preservation Society's facebook page and website and the NVR's respective pages.

Whitrope Heritage Centre: Railbus RB004 has continued to provide a passenger service at Whitrope. Reliability has improved after work was undertaken to trace and solve a few air leaks in the braking system. Further works will take place during the closed season.

Ecclesbourne Valley Railway: It has been a pretty interesting time for us of late. On Thursday 24th October, Gloucester 'bubble' E55012 arrived with us for contract mechanical repairs bringing two Class 122s together! The vehicle is only due to stay with us for a short time before moving on, but should see some use in the valley before departure.

Back in September, the final piece of the 101692 jigsaw arrived in the form of E50253. The vehicle had received much bodywork four or five years ago but the vehicle had since fell out of use. Arriving with us, the vehicle was covered from top to bottom in a green mould and had to be steam cleaned just to see out of the windows.

Internally, the vehicle isn't too bad. The passenger saloon is basically complete. Areas of work will concentrate on the guards van and the cab. The guards van had received a brand new floor, which meant that all of the partitions and cupboards had been removed along with the majority of the wall panels. The team have already (at the time of writing) replaced two bad ceiling panels in there and made a start on repaneling the van. The cab has suffered from water ingress through the front windows and the desk top was rotten. The old desk top has been removed and a new one will be cut. Whilst the desk top is out, the opportunity is being taken to renew some of the older wiring. The LED air/axle panel has been replaced with the more heritage lamp version but on the flip side, it is hoped to use some LEDs for the panel lights. Welding repairs on the front will take place before the new desk top is installed.

Externally, the vehicle will receive any remaining repairs to the bodywork which is actually in good condition, before being repainted. The vehicle seems to be in mechanically sound condition with the engines starting first time after four years. The team drove the vehicle up and down the siding before taking out the controls.

Elsewhere, things are still busy as ever. All vehicles have received their exams and E51505 has received some extra mechanical attention along with several days worth of attention to its toilet area. Class 108 E50599 received a better set of seats because the old ones were very worn, which turned out not to be a five minute job!

We do hope that you will keep an eye on our <u>new website</u> and follow what we're up to. The 'news' section on there is a blog and <u>can be subscribed to</u>.

Apologies for the blank space below, this is due to an editing oversight which was necessary to include the EVR report at the last minute!

North Norfolk Railway: Class 101 M51192/M56352 - The past few months have seen the set struggle to operate the required DMU services, following numerous mechanical failures which were compounded by the unavailability of the Class 122 which was intended to provide cover. With no operational railcars, diesel services were covered by locomotives some days. However by October the failures had been overcome and the set was in near daily service during the month providing all of the NNR's DMU requirements.

Class 101 E51228/E56062 - With work focussing on the other Class 101 set and Class 122 set, no mechanical work has been recently completed on this set. E51228 remaining stripped down. The only progress on the vehicle has been the repainting of the guards van panelling, ceiling and cab interior. Meanwhile the trailer car remains "stored serviceable", awaiting the return of its partner.

Class 122 E55012 - Hired in to provide a versatile spare powercar and to allow maintenance work to be completed on the Class 101 sets, availability of the vehicle has been extremely poor with a string of mechanical failures dogging the unit. After working only a handful of services, the vehicle has spent long periods out of traffic during the summer undergoing much work in an attempt to make it fully operational. By September the decision was made to cut losses and concentrate all resources on increasing the reliability of M51192/M56352 instead. The vehicle consequently left the railway in late October (see movements section).

Keighley & Worth Valley Railway: Class 101 51189/51803 is now fully in service.





E51228, bodywork completed, outside the Carriage & Wagon workshops at Weybourne, 23/9/13

Restoration News

Class 100 E56301: Carpet has now been fitted to the second class saloons, and the heater ducting repainted. The rear saloon has been cleared out and relieved of its previous role as a display area. Bodywork on the cab end externally continues.

W&M Railbus 79963: At the East Anglian Railway Museum body repairs are progressing well with reconstructive work to the heavily corroded centre vestibule areas and structures. Removal of the main sliding doors for access to the corroded areas has enabled examination of the door control air cylinders and repairs to the door latching mechanisms. New door nosing and closure rubber extrusions have also been ordered to replace the degraded items. A small area of the main wiring remains to be evaluated and a methodical approach to the refitting of the interior furniture has been reviewed.



New carpet inside E56301, 21/9/13

Class 103 56160: Due to work, illness and bereavement there is little to report. Another 680, a destination blind mechanism from a Bristol VR, and a few other bits have been purchased however. Investigations are underway into the use of 3M VHB tape to secure the ventilators on M56160 instead of rivets, as a long term solution to the aluminium/steel corrosion problems.

Class 101 (Cab) 50211: The gear controller is back together.

E&G 79443: Further welding repair work done on the corridor side means that side of the vehicle is almost complete and the application of primer to the new steel has begun at the Bo'ness & Kinneil Railway. New timber is being fitted around one of the door openings on that side so that the first door can be installed. The recently fitted windows on the other side have been painted. Holes for coach letter holders have been drilled in the bodywork renewed so far and we have started to fit them (on both sides near the restored No.1 end). More new body panels have been cut and primed so that we have a stock ready to use in the next lot of welding repair work. Three more panels of corrugated key sheeting have been welded in place. This means that almost half of the floor has been done. We now have three interior half partitions successfully completed and trial fitted. Work on the other halves of these is ongoing. Sanding of interior woodwork for the compartments is underway.

The Long Term Preservation of Mechanical Components

By Richard Thonton

"There's dirt in the machine, where there's oxygen there's rust." - Thea Gilmore

I suspect that most of us acquired our stock of spares many years ago, and like me, they have been stored in damp containers or under leaky tarpaulins. We hope they will still be serviceable when we need them, but as spares are becoming harder to find, and it is likely that in future parts will come from the scrapping of vehicles already in preservation, I believe it is important that we consider the long term preservation of the spares we already hold.

For the purpose of this paper, I have taken long term to mean over one, and up to five years, and assume that we all understand the causes of the corrosion.

As the Ministry of Defence has large stocks of new and used machinery, in long term storage, I have mainly followed their guidance when searching for the best method of preservation.

The MoD uses several methods to store spares, ranging from packing with a desiccant to absorb moisture; sealing in an oxygen free container and coating with an oil based preservative. Having read the various publications, I consider the oil based preservative to be the most practical for our needs.

Materials

- White spirit
- The preservative used by the MoD is a thin film, compound oil referred to as PX-4. civilian alternatives being Ardrox 311 or Shell Ensis M1250.
- A soft grease type preservative such as No-Ox-ID "A Special".
- A mouldable wax tape.

Method (parts removed from vehicle)

- Remove all covers, sumps and sub-assemblies.
- Thoroughly clean both inside and out with white sprit.
- Dry using moisture free compressed air.
- Immediately spray PX-4 internally (including into cylinders) Valves should be opened so the preservative can coat them and their seats. Where the item contains moving parts these should be 'worked' whilst spraying so that they are fully coated
- Refit covers and seal pipes & openings with the wax tape.
- Paint external surfaces.
- Coat mating surfaces with No-Ox.

Exceptions

Gearboxes should be drained, flushed (with PX-4) and filled with PX-4. Care should be taken to spray any unfilled areas with PX-4. Drain, and seal pipes with wax tape.

Radiators should be flushed with de-ionised water and the pipes sealed with wax tape

Fuel Pumps should only be cleaned externally. Fill the pump with lubricating oil and if possible drive it at 100 rpm to circulate the oil through it. Rotate the pump to ensure all internal surfaces are coated with oil. Drain and seal pipes with wax tape. 4440-

Grease the outside of the pump body and wrap in greaseproof paper.

Injectors. Clean externally and coat in grease. Wrap in greaseproof paper.

Where engines and gearboxes are still insitu, and capable of being 'motored' it is preferable to drain the oil and coolant and refill with PX-4, run for ten minutes and drain. Don't forget to label "No Oil"! Seal all pipes and openings as above.

References

Army Equipment Support Publications (available as freedom of information requests)

- 0200-A-220-013 Preservation. Identification and Packaging of Assemblies
- 4440-A-100-201 Sealing Drying and Desiccation Principle and Practices
- Defence Standards https://sts.defencegateway.mod.uk
- 81-55 Packaging of Mechanical Components
- 81-61 Preservation of Vehicle type Radiators and Heat Exchangers
- 81-62 Preservation of Mechanical Power Transmission Assemblies
- 81-63 Preservation of Fuel Injection Pumps and Fuel Injectors
- 81-70 Preservation of Engines (Gasoline and Diesel)
- 81-72 Preservation of Cylinder Blocks (with or without pistons) and Cylinder Heads

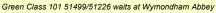
Machinery Lubrication Magazine

Protection of Equipment During Storage, Standby and Decommissioning

Multiple Matters Weekend

The Mid Norfolk Railway held its second Multiple Matters Weekend in October, which featured the return to operational service of Class 101 51434 which has been out of traffic for several years receiving bodywork restoration. This allowed a 5-car Class 101 set to operate each day, alongside visiting Class 156 156403 courtesy of East Midlands Trains and resident EMU/Class 73 combination 1497 and 73210. Interesting features of the event were the direct connecting link service in the morning/evening from/to Norwich using 156403 and also several trips north of Dereham several miles along the railway's yet-to-reopen-fully section to Hoe.





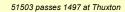


Visiting 156403 at Thuxton





51226/5149 stabled at Dereham, with 51434 in the background







51434/59117/51503 call at Thuxton

The newly repaired brakevan area of 51434

Time Traveller

A regular feature: ten external links to images taken of DMUs on British Railways

Green Era

Derby Lightweight - Barrow-in-Furness - 2/9/1967

<u>Derby Lightweight - Cransley - 21/6/1970</u>

Blue Era

Derby Lightweight - Roose - 2/9/1967

Class 111 - E51550 - York - 8/12/1973

Class 105 - Ardleigh - 2/8/1980

Class 114 - New Holland Pier - 29/9/1980

Blue/Grey & Later

<u>Class 108 - M52052 - Liverpool Lime Street - 9/7/1980</u>

Class 101 - E53182 - Marsden - 1986

Class 128 - Duffryn - 16/7/1990

Class 120 Images

As it's issue 120, below are online links to some images reminiscing of the days when these vehicles were an everyday sight on the mainline

Green Era

Shrewsbury 1960

Craven Arms 1962

W50699 Newport 1966

Southampton 1/7/1967

Blue Era

Sc51788 Inverness 8/1968

<u>Inverness 8/4/1974</u>

Blue/Grey Era

<u>Inverness 8/9/1977</u>

M53692 Crewe 23/5/1985

53688 Derby 28/12/1985

Preston 29/4/1986

For Sale

Class 121

Ex Departmental Class 121 55025 (Pandora). Contact <u>Tractionads</u>.

Mechanical Spares

- · 3 Leyland 680 engines
- · 2 R14 gearboxes
- · 2 radiators
- · 4 heaters
- · Final drives
- · Misc cab parts
- · AWS parts
- · Oil bath
- · Alternators

Items located in Barry (Wales). Contact <u>Carl Hookings</u> 07863777388



Pandora at Tyseley, 18/6/13 (M.Dawson)

Vacuum Spares

- · DMU Vacuum Feed Valve
- · DMU Automatic Isolation Valve
- · Gresham and Craven Vacuum non return valve
- · DMU Vacuum Reservoir (believed to be ex 107 or 118)

Contact Andrew Briddon

Movements

Class 101 50253 moved from the Midland Railway Butterley to the Ecclesbourne Valley Railway in September. The vehicle joins the other two thirds of the former 101692 set, 59303 and 50170, both currently operational in BR Green and both having transferred from the MRB to the EVR in recent years. 50253 had been withdrawn from service some time ago for bodywork restoration (which was particularly needed around the guards compartment) which was partially completed at the MRB before being stopped due to other commitments. The movement of the vehicle allows the restoration to be picked up by the same enthusiastic team who recently completed Class 119 W51073 (reported in Issue 119), and work has already begun on fully returning the vehicle to service.

Class 117 W51360 moved from the Ecclesbourne Valley Railway to the Gloucestershire Warwickshire Railway in September. The vehicle was sold from Railcar Enterprises to the Cotswold Diesel Railcar Group, the latter organisation having been in the market for a spare powercar to provide maintenance cover for their Class 117/122 fleet for some time. The vehicle is fully operational, W51360 having participated in the Multiple Memories gala at the EVR only a month previously.





Class 117 W51360 shortly after arrival at Toddington, 5/10/13

53253 at Wirksworth,12/10/13 (E.Copcutt)

Class 122 E55012 moved from the North Norfolk Railway to the Ecclesbourne Valley Railway in October. The vehicle has been available for sale/hire this year but following poor availability at the NNR has been dispatched to the EVR for contact repairs.

Gallery





Class 122 E55012 under repair at Weybourne, North Norfolk Railway, 23/9/13

M51192/M56352 approach Weybourne with the 16:20 Holt-Sheringham, 20/9/13



Class 100 E56301 under restoration at County School, 21/9/13





Class 121 977968 under restoration at Rushden, 6/10/13



W51363 near Gotherington during the railcar convention



W51405 at Winchcombe during the railcar convention



W51405 at Winchcombe during the railcar convention



W51405 at Winchcombe during the railcar convention



W51363 at Winchcombe during the railcar convention



W51363 near Gotherington during the railcar convention



W51363 near Gotherington during the railcar convention



W51363 at Greet Tunnel during the railcar convention



W51363 at Winchcombe during the railcar convention



W51405 at Cheltenham Racecourse during the railcar convention



W51363 at Cheltenham Racecourse during the railcar convention

Submissions

Hopefully the contents of this bulletin was both interesting and informative. If you know anyone who could provide similar material found in this issue for future bulletins, please make yourself or them known to railcar@live.co.uk The following types of submission would be most welcome:

- Photographs of vehicles in service
- Restoration articles
- Reports on special events
- DMU modelling articles
- Requests for information
- News & images of recent DMU activity
- Anything that may be of interest to readers

Caption Competition

Please send any ideas to railcar@live.co.uk



Feel free to send submissions at any time to railcar@live.co.uk but no later than December 30th for Issue 121 (due out January)