

# AUTOCAR

No. 11

Spring 2011

# The HLF DECISION

Where do we go from here?

The Newsletter of the  
1903 North Eastern Railway  
Electric Autocar Trust

The North Eastern Railway 1903  
Electric Autocar Trust

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To this.....



The dream comes true!

## **Chairman's notes**

Stephen Middleton

### **The dream is coming true.**

Over the past eight years a small group of us have laboured through paperwork, visited factories and offices, met, run a shop, set up a charitable trust, conserved the autocar without really knowing if we were wasting our time. Now we know. We were not wasting our time. The HLF (Heritage Lottery Fund) approved our bid in full, committing up to £465,800 to see our dream come true. Within two years we should see the autocar run again and two years later the autococh too.

Without you we could not achieve this. Your membership, support and valued contributions proved to the HLF that we have the will to raise balance funding and a volunteer workforce to make this a viable project. Special mention to the Ken Hoole Trust, the first 'body' to approve a grant for us. Had all else failed this grant would have repaired and safeguarded the body. Add to that the PRISM grant and the funds we raised through member donations and shop sales and we would have an autocar as a functioning usable coach, just as the LNER considered doing with it upon withdrawal. However, it was not a coach, it was a pioneer railcar and the HLF recognised its' importance, the quality of our bid and the balance funding raised with its' positive decision.

Now all we need to do is the work! Can you help? We need painters, woodworkers, patient people who can scrape paint from wood, metalworkers, welders, pipe fitters and electricians.

**Join us, and be part of a winning team.**

## Progress report

Stephen Middleton

By the end of January the autocar had been moved to Embsay's platform 2 and the tarpaulin rolled back to allow access. We were not too concerned about rain getting through the metal roof above the engine room as it is all going to be stripped off soon. The floor there too will be taken away and replaced with a metal floor for the engine.

Joiner Tony Vollans came to take away one half of the double door to replicate the missing one and measure up for wood to repair both ends. Light mountings, metal internal ceiling vents and damaged side vents were removed and taken away by Marcus Woodcock for cleaning and repair. A veritable army of us has put in approx 300 hours scraping away the thick white paint inside to reveal teak, mahogany, pitch pine and etched clerestory glass. Later in the year detail cleaning, sanding and varnishing will complete the interior of the passenger saloon.



Progress on the driving compartment partition at the end of February, the pitch pine boards are cleaning up nicely.

Photo; Alan Chandler.

The Crich Tramway Museum has been particularly helpful, identifying several components used within the autocar. They reckoned the seats could have been made by Brush and lent us a similar seat from a Great Central Railway Immingham tram. Stephen Middleton removed the iron end and it is currently being replicated to give 52 seat ends and back frames, painted ready to fit upholstered seats and backs.

We have taken delivery of top and bottom bogie centre castings and bogie pin so, with a little adaptation, we can fit the motor bogie to the 'new' underframe. First, though, there are a few bent components that need straightening out and a lot of the top plate work needs replacing. In addition we will get a contractor to sand blast and paint the underframe and bogies. Once that is done the underframe should go to a contractor for engine and controls installation.



By mid March nearly all the passenger saloon is stripped, volunteer Len Clarke working on the ceiling. All the interior ventilator regulators have been removed for repair.  
Photo; Simon Gott.

## **The Way Ahead**

Steve Hoather

Since Christmas, while Steve M has been beavering away organising working parties to work on the bodywork, I have been trying to gather the information we need etc to enable us to “hit the ground running” when the HLF switch the signals to green.

The most obvious need was for a drawing of the underframe, to enable both the brakes and traction contractors to design the layout of the equipment. Peter Lund had identified our underframe as being from a Great Northern Railway Milk Brake no 2391, built at Doncaster to diagram 310 in 1921. I therefore went to the National Railway Museum and searched the Doncaster C&W drawing register, which listed drawing 845 as a General Arrangement for this vehicle. This was quickly found for me, and on looking at it I saw that it calls up drawing 844 “GN Passenger Bogie Brake Van Underframe”. The ever helpful staff quickly found this one as well, but it is in very poor condition, being torn in several places and with the whole corner containing the title missing. Like other drawings of the era it is large, measuring about 64”x 32”. When I asked to buy a copy the archivist was summoned who quickly looked at it and declared that because of its condition it was too fragile to be copied on the machine at the NRM, as this involves passing it between rollers. However, all was not lost as the NRM have an arrangement to use a scanner at the County Records Office at Northallerton which does not have rollers, so can cope with more delicate documents. After some delay due to a machine breakdown, I received a full sized paper copy, and a CD of the scan. We then compared this and the key dimensions with the actual underframe at Embsay before sending the drawing electronically to the two contractors. The quality of the print is astonishingly good-virtually all the dimensions are legible despite the original being 99 years old.

Towards the end of January we met Keith Nicholson at Embsay. Keith is an ex BR Brakes Engineer who now runs a company called Railway Brakes Services, specialising in braking systems for heritage vehicles. He designed the air brake system for “Tornado” and comes recommended by the North Yorks Moors Railway amongst others. Having discussed our requirements he is designing the system so that we can identify the com-

ponents we need. The vehicles will be fitted with Automatic Air brakes which is historically correct for the North Eastern Railway. (After the Grouping in 1923 Britain's railways standardised on vacuum brakes, but BR decided in 1964 to change to Air brakes, which was finally completed a few years ago). Once we have identified the components needed we hope to purchase them from scrap vehicles as and when they become available.

Now that we have the green light from the HLF we can look forward. There are 3 key constraints in planning the work:

- The restoration work funded by the PRISM grant must be finished within 12 months of 26 November 2010, (and one third of this time has already gone!)

- The price for the traction package work by Brush is based on all the work being finished in 2011, with only the testing carrying forward to 2012.

- The diesel/alternator set must be fitted to the underframe before the body is transferred from its temporary underframe. This was a key factor in reducing the cost as it avoids breaking down the set after factory testing in order to squeeze it through the doors, and then re-assembling inside the vehicle.

We will therefore have two parallel work streams during the summer. Restoration and repair of the body will continue on the temporary underframe, and the tip-over seats can be manufactured, but not installed. The "proper" underframe will soon be brought into the workshop at Embsay. Some damage needs repairing and it will then be needle-gunned to remove the corrosion and repainted. Some of the gusset plates on top are badly corroded and need replacement, so the opportunity will be taken to fit larger ones at each end to cover the cab area and reduce the likelihood of draughts. When this has been done, the motor bogie can be fitted at one end-this will need a special adaptor plate designed and fabricated to get the buffer heights right. After this the underframe with its bogies will be sent to Brush at Loughborough who will fit the alternator set after factory testing. On return to Embsay the body will be transferred over in two

halves (it is split near the luggage double doors) and secured to the underframe, and all this needs to be complete by 26 November 2011.

Having married the body to the underframe, the control desks can be fitted in the cabs, cabling fitted, body restoration finished and the brake equipment installed-we estimate this will take most of 2012. The Autocar will then be ready for use as a single vehicle, and work can begin on the trailer which at present has no compartment partitions or seats, so this is likely to take another two years or so to complete.



Volunteer John Boddy has carefully stripped back the old paint to reveal an original NER transfer which reads; Damage To Carriages. £5 reward will be paid to anyone furnishing information leading to the conviction of any person doing wilful damage to the fittings of the carriages, information to be given to the station masters or other officials of the company. There are several of these transfers surviving, unfortunately due to the amount of damage to them, they will have to be removed and replaced with specially made new versions.

Photo; Alan Chandler.

Official HLF Press release 22 March 2011

## **'Grandfather of modern trains' to be restored thanks to Heritage Lottery Fund**

The Heritage Lottery Fund (HLF) has awarded a grant of £465,800 to restore the world's first electric Autocar and accompanying 1904 'autocoach'.

As the first train to be powered by petrol electric engine, the York built 1903 'autocar' is the forerunner of today's modern trains. The four-year volunteer-led project, to be run by the NER 1903 Electric Autocar Trust, will see the train and accompanying coach restored and brought to life for use on heritage railways in the Craven area, North Yorkshire and the North East. When complete, the train will carry passengers again for the first time in over 80 years.

The works will start shortly at Embsay, near Skipton, and will see the body restored, and a new engine, generator, controls and brakes fitted. There will be lots of exciting opportunities for volunteers to get involved, in particular for people with electrical, pipe fitting, welding, painting and woodworking skills keen to experience working in the heritage sector. The train, when finished, will be fully accessible to all, and equipped with the latest audio visual techniques will act as a 'mobile classroom' for schools and community groups so they can learn all about the development of rail transport from steam travel, to present day.

Fiona Spiers, Head of the Heritage Lottery Fund for Yorkshire and the Humber said:

'This project to restore the predecessor to modern rail transport is fascinating. Not only will it preserve a precious relic from our industrial past, it will also provide many opportunities to get involved and develop skills as part of the restoration, which is great news for people in the area.'

Stephen Middleton, Harrogate coach restorer and NER 1903 Electric Autocar Trust Chairman, originally bought the autocar body from a landowner who had used it as a holiday home since 1930. He said:

'We are delighted that the HLF has recognised the importance of this train and our restoration and educational plans. This, with smaller grants from the Ken Hoole Trust and PRISM (The Fund for the **P**reservation of **I**ndustrial and **S**cientific **M**aterial) has given us the boost we need to complete the project within an ambitious timetable.'

ENDS

Overleaf;

The passenger saloon looking towards the trailing driving compartment. The interior of the Autocar is being steadily stripped of the old paint applied during its holiday home days, revealing the original pitch pine boards. A preliminary investigation lead us to believe that the interior had a "scumbled" paint finish, however the reality is highly figured pine boards that are varnished. The clerestory still retains its etched glass lights which we intend to retain, note the sliding hit and miss ventilators above the windows, surely these must be the longest in preservation? This photo was taken on the eleventh of February , the delightful pink has now thankfully disappeared, see page six for the current view.

Photo; Alan Chandler

