

One Two Five

Magazine of the 125 Group



Issue 111

Summer 2015



Welcome...

'One Two Five' is the magazine of 125 Group, the only group dedicated to following Inter-City 125 High Speed Trains. The Group is run by a voluntary committee listed below, we are delighted to have Sir Kenneth Grange, eminent industrial designer of the HST nosecone, as our Honorary President. Valenta Diesels Limited is our preservation arm which has secured many of the major components required in future years to achieve our ultimate goal, the preservation of a production HST powered by the original Valenta engine. If you wish to contact us, our e-mail addresses are below or you may write to us at the address shown on the back cover, enclosing a S.A.E. if you would like a response.

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Website / Join Us

The 125 Group website continues to provide users with a wealth of features, including online membership sign-up and renewal, sales, plus a complete set of current passenger diagrams and headcodes. Point your browser at www.125group.org.uk. If you have a friend who is interested in HSTs but not a member, please get them to sign-up on the website or contact our membership secretary at the E-mail address above, or by post 54 The Bridleway, Forest Town, Mansfield, Nottinghamshire, NG19 0QJ. Membership is £17 which includes four issues of this members' only magazine.

Prototype Power Car and Preserved MkIIIs

We are the proud custodians of the only preserved prototype power car, loaned from the National Railway Museum. Thanks to donations from members and benefactors, through the tireless work of our volunteers and with vital help from the railway industry, we have restored 41001 to running order for use on preserved railways. We are also the owners of MkIII coaches RFM 10206, FO 11074 and SO 12092, these and 41001 are all based at the Great Central Railway (Nottingham) at Ruddington, www.gcrn.co.uk

Magazine Contributions

The committee welcomes submissions for OTF magazine, articles, photographs and news reports. Photos should be in-focus and preferably of high quality. Submissions are not guaranteed to be published and feedback as to why they have not been used is not guaranteed. Photographs and written articles, also any general questions, comments or suggestions about OTF should be sent to editor@125group.org.uk News and gen reports for the TOC News section should be sent to: news@125group.org.uk

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We are on Facebook, please search for **125 Group** and 'like' us to stay in touch and you can also follow us on Twitter **@the125group** and **@41001_PM**. We also occasionally send out updates to members via E-mail so to be sure of receiving these please keep the Membership Secretary advised of your correct address at join@125group.org.uk.



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Inside This Issue...

Welcome to another packed edition of "One Two Five", bringing you a rather large update from the preservation world of 41001 and our very own MKIII carriages. We also have an article on the possible future cascades of the fleet with electrification delays and as always, blasts from the past!

Front Cover Photographs

Top: 41001 leads the newly acquisitioned MK3's towards Ruddington from Fifty Steps on one of many trips made to Loughborough during 41001's public launch weekend 29/03/2015 © **David Senior**

Bottom: A glancing view of the new Virgin Trains East Coast livery on 43311 at Kings Cross on it's first day in service 20/06/2015 © **James Trebinski**

Editorial

by Steve Vaughan

Eight years ago, it had become obvious that HST re-engineering was going to affect more than just a few power cars and it was likely that, at best, the Valenta engine would soon be in the minority if not removed from service completely. I can remember sitting in the Great Hall of the National Railway Museum with some of the 125 Group committee, whose faces were as long as a horse who'd just realised he'd run out of carrots, glancing over at 41001 and flippantly making the comment that no matter what happened to the fleet on the main line that there would always be one power car that would retain a Valenta. At that time the chances of 41001 being dragged outside of York let alone returning to working order were near to zero and we left the NRM to ponder the future of a railway free of the sound of Valentas and the prospect of taking up bashing class 175s.

I now find myself writing this editorial having just returned from Leeds Neville Hill Depot where 41001 has been undergoing some heavy maintenance in final preparation for a return to public service in preservation at the GCRN. With 41001 ticking over on the depot under test some of those same long faces from York had been transformed in to beaming smiles and laughter. The challenges faced with 41001 and the highs and lows of returning it to working order have, for me at least, been far more rewarding than the years I spent riding on HSTs around the country prior to MTU engines making an appearance.

With the first pre-production IEP train now in the UK, the introduction of the train to replace the HST is within sight. How many HSTs that will remain in traffic post 2020 is still to be decided but it does look like the beginning of the end is in sight. A few years ago I'd have viewed this as a real piece of bad news but experience with 41001 now makes me feel very differently. Power cars are a bit like alpacas in that they shouldn't really be kept alone and I look forward to the future challenges of expanding the 125 Group fleet so 41001 has plenty of company not with a long face but a spring in my step and a smile on my face.

Maybe the future isn't so bad after all!

Preservation

by Gary Heelas



A slight shift in our reporting from now on as not only do we have 41001 in our care but also now the proud owner of 3 x MKIII vehicles.



We left you last time with the MkIII's safely delivered to their new home at Ruddington and 41001 off on a small holiday to Yorkshire ...

Easter in Yorkshire

A small team of us descended on Neville Hill depot at Easter to work on 41001 in familiar surroundings.

There were three main jobs:

- Change the turbocharger to a recently overhauled NA-256 unit – the SA-084 unit fitted on 41001 was starting to fail with excessive oil being passed.
- Change the silencer to a production unit that had been reclaimed from 43048 last year. The prototype silencer on 41001 was on the verge of falling apart and the production silencer is vastly superior.
- Change the traction motor brushes whilst we had good pit access.

After a warm welcome we lost no time getting to work unbolting the roof sections of 001, which was sitting in road 1 of the Back Fitting Shop. It's a relatively straight forward job to remove the silencer and turbocharger; first, remove the roof above the engine which is just a load of big bolts and remove the oil breather pipe. Then the silencer which requires the exhaust elbow to be unbolted from the turbo plus its own roof section detached whilst not forgetting the bolts holding the rubber curtain between the clean air and engine room up.

We had all this done in double quick time but there was an issue! Network Rail had contractors in doing the 20 yearly re-decorating job on the end of the Back Fitting Shop which meant there were cherry-pickers moving about. This meant the overhead crane was out of use and until they were done we were somewhat stuck! Fortunately EMT's own fitters were doing exactly the same job on 43043 which was in road 3 - it had a turbo fail and was having it removed and changed plus a new silencer and bellows – so there was pressure for the contractors to go away!

Roof Off

By first thing on Saturday we decided to take a chance and get the roof and turbo off 41001 whilst there was a clear moment with the contractors on a break. An EMT fitter assisted with the crane operation – the only thing we couldn't do ourselves – and lifted the roof sections out plus S508's errant turbo was also removed and put on a waiting pallet. We could now work on removing the various items off the old turbo and swap to the waiting overhauled unit. This included the studs underneath the turbo which are usually changed but difficult to get hold of now the Valenta is no longer in front line service; fortunately all ours were in excellent condition. We also then set about releasing the old silencer from its roof section which was a matter of unbolting lots of nuts and bolts. I'd spotted how the EMT chaps were removing their silencer which involved putting the silencer and roof section on 4 pallets, unbolting and then dropping the roof section down to the floor, leaving the silencer behind. Nifty!

Of course we were now scuppered again as we needed the silencers swapped over so we could attach the replacement unit, but the contractors were off again. It would have to wait until Sunday and we'd work on preparing S508 and also James could start on the traction motor brush change. The brushes on 001's traction motors were obviously very old and had started to go soft which isn't a good sign for reliable operation, so we decided to buy a whole new set and re-brush the entire power car. It's not that difficult an operation but does require a slim physique, nimble fingers and patience, something James has in huge quantity! All the brushes came out with little persuasion and after some cleaning the new brushes were all installed and traction motor



covers refitted. Whilst under the power car James carried out a full pit exam and we're happy to report nothing untoward with motors, gearboxes, linkages, etc. with pad wear minimal so far.

Silencer Swap

Sunday morning we immediately set to work swapping the silencers over; our crane operator shifted the old one out of the way and then lifted the hefty "new" part onto the pallets. On lifting up the roof section we found that the holes were in a different position – I'd actually read about this in a BR bulletin from the 1980's the week before. Not a big problem as it was just a matter of running a drill through the holes to reposition the mountings. We also put some super Loctite gunk between the two mating faces, again copying the EMT chaps, to stop any rain coming in. Alex finished off the exercise by painting all of that roof section black to match the replacement silencer. Strangely it doesn't look that out of place.

Whilst the crane operator was around he swung the new turbo into position on S508 and Ben and Steve set about reconnecting up the turbo to the engine as well as all the pipework that needed to go in – far easier doing it with the roof and silencer removed! One problem that did arise was we found the small oil pipe from the overspeed switch has a different thread on the NA-256 pipework than the original SA-084. Much swearing then took place and after quite a long search we managed to find a suitable hydraulic hose in a spares bin that would do the job temporarily – it was much too long but we tie wrapped it into a coil and would look to change in the short term for something a bit more appropriate.

Roof On

Next was time to get the roof back on; first off the silencer roof section which went on relatively easily. The method of putting this back on is to have the exhaust elbow and bellows bolted to the silencer and then crane the whole lot onto the power car, guiding the exhaust elbow onto the turbo as the section is lowered into place. With that on some frantic bolting took place to connect the elbow to the silencer and also pulling the roof section down so it could be properly attached to the power car.

The main roof section then put up its usual fight as it has a twist in it from one corner to the diagonally opposite corner. If you bolt three corners in you find the last corner sticks up a good few



Opposite: With the engine room roof off, Steve helps guide the silencer off 41001. 04/04/15 © James Trebinski
Above: All systems go! Everyone at work either on the silencer or turbo. 04/04/15 © Alex Wood



inches. Standing on the corner didn't work. Clobbering with a bit of wood didn't work. So in the end we loosened the other corners and Steve made an improvised puller tied to part of the power car and backed off with washers and bolts to gradually pull down the roof until he could get a bolt in. After much effort we eventually got the roof in and all was well.

So the power car was all back together again and just required some coolant so we could start S508 up to see how the new turbo and silencer worked. The secondary filled up without any problems from the shore coolant supply. But the primary was being troublesome and required some mountaineering by Steve to take the top off the header tank to see what was up; the float valve had got stuck. After some gentle wiggling of the arm the problem was fixed, as the float came flying off the arm and landed on the depot floor. Rust had eaten through the attaching metalwork! This was not a problem as the floats are a bit of a luxury anyway so we'd just leave the valve permanently open. The primary circuit then filled up only to find a small leak coming from a turbo joint. So out came the coolant again and after some strategic application of Sikaflex we tried filling the system again – success!

Fire Her Up!

Next came the nerve racking bit – starting the power car. We went for the softly softly approach and ran the oil priming pump on its own several times to get plenty of

Above: Silencers everywhere! 43043 awaits it's new silencer to be installed whilst Ben works on preparing 43048's old silencer for instalment into 41001. 04/04/15 © **James Trebinski**

Right: Ben with the help of Steve guides the new turbo onto S508 04/04/15 © **Alex Wood**

Opposite: 41001 posing for the cameras outside the TMS bays at Neville Hill before heading through the wash plant 06/04/15 © **James Trebinski**



oil circulating through the new turbo. After double checking all the joints we decided we would go for it so pressed the start button. A few usual coughs and bangs and S508 burst into life. Everything looked and sounded fine so we left it idling for half an hour before shutting down and checking everything again. There were no leaks or strangeness in the engine room so we started it up again and left for another half an hour. The new silencer had made a vast difference with no booming in the cab now from the bottom of the unit. After the hour total had passed the exhaust on 001 was very clean indeed so Ben decided we'd wake 001 up a bit and off-load went through the notches. The new NA-256 made its presence heard with the coarser noise being sung out in the Back Fitting Shop! All was well so we shut down the power car and went home for the night.

I Can See Clearly Now

The final day was one of comparative luxury with some general titivation and checking. We had also asked EMT what they were doing with the windows from 40729 which was gradually falling to bits at the back of No.1 road in the BFS. They said we could help ourselves to them as it would be less to shift when the carriage finally went to meet its maker, so we set about removing all the windows that were remaining as some of our own MkIII fleet had blown seals and could do with replacing. However we'd now got another problem of where to put them? The logical place was in the van area of 41001 but the windows are surprisingly large and overhanging the floor. So after much head scratching by John Zabernik and Ben they eventually worked out that the safest place was in the clean air compartment, wedged by the side of the alternator! The windows are very heavy and awkward when you're trying to get them in through a cab door but after a couple of hours they were all safely stowed down B side with lots of cushion material to prevent breakage and movement during the journey.

Playing Trains Part 1

We'd had a tip off from John Z that Paul Corrie was working on our last day and suspected that he would want to "play trains" on the premise that 001 would need testing after the work. Just after lunch he came strolling into the BFS and in his finest Yorkshire voice pronounced "I suppose you lot want to go play trains?". Well, you can't really say no. So he rapidly fetched a couple of shed drivers/shunters and hatched a plan; there were 4 coaches in the servicing shed that could do with



dropping down on the fuel road to get them out of the way. To get there we would go via the wash plant so 001 could have a wash, drop them off and then back to the BFS. Sounds easy, but rather a lot of manoeuvring required! John decided to let the two shunters have a go driving 001 under his supervision and they were both thoroughly enjoying themselves, with regular stops so Paul could get some photos from various vantage points! The sight of 001 in the servicing shed backing onto some coaches raised some eyebrows as did going through the wash plant which is very thorough – small floods appeared in the guards compartment, such was the ferocity of the water and foam. After dropping the coaches off we had to make another trip through the wash plant so we could get back to the BFS with 001 put in No.3 road. Why? So we could change the cant rail bolts to stainless steel ones to stop them rusting – we'd already changed the other side whilst it was sat in No.1 road but could get up that side of the power car due to the proximity of a wall! Once that was done we quickly shunted 001 back into No.2 road where it would stay until collection – job very much done!

Out On The Road Again

John Z offered to babysit the run back from Neville Hill to Ruddington on 17th April with Rob Buchanan from DCR again at the controls but this time with 31601 fresh off Washwood Heath, light engine to Neville Hill where John had pre-prepared and moved 41001 into a suitable position for Rob to drop straight onto it. After a brake test and some thank you's to the EMT staff 31601 and 41001 started their uneventful journey south, arriving at Rushcliffe Halt under cover of darkness. The 31 was dropped off 001 and Rob departed into the inky darkness leaving 001 all alone, but this time with Bryn Davies and Kyle Baldwin as secondman and guard respectively to assist John. This was going to be interesting as 41001 would now require driving backward in the dark to Fifty Steps before the short journey forward into Ruddington. John fired up 001, did a systems check, hung a portable headlight on 001's rear and then slowly worked the power car back towards Ruddington. Apparently it was a rather peculiar experience for all involved with Kyle looking out the back window in contact with John and Bryn via walkie talky. Fortunately the headlight was powerful enough for Kyle to see where we were going but at 5-10mph we had plenty of time to stop if something appeared.

Coach Cleaning

Whilst we were waiting for 41001 to return from Neville Hill a team of us descended on Ruddington to start cleaning our newly acquired coaches. We'd had several quotes for deep cleaning them and were shocked at the pricing, so decided to take matters into our own hands. We consulted with the MkII chaps at Ruddington on how they went about cleaning their coaches and quickly drew up a list on how we were going to get them back into some sort of order.

The external clean would be just to remove all the grime the coaches had picked up whilst in storage at Long Marston and before that at Ilford. We bought ourselves a new pressure washer together with some excellent foaming cleaner that had worked wonders on the MkII's. After first pressure washing each

Opposite Right: John Z has a go at scrubbing up one of the GCR(N) MkII's 16/03/15 © ***James Trebinski***

Right: Mike and Ben get stuck in with cleaning 12092 © ***John Zabernik***





coach to remove any large bits of muck a thick layer of the foam was deposited, which immediately started to eat into the ground in dirt. After about 30 mins the foam was given a good brushing to try and dislodge any remaining dirt before finally blasting off the foam and dirt using the pressure washer. Although the coaches still require a repaint in the medium term at least they were now free of storage dust and dirt on the outside.

Mrs Mop

The internal cleaning was slightly more involved; 12092 had pretty dirty cushion covers so we took the

decision to remove them all and then I would give them all a thorough wash in my washing machine. The cushions come off relatively easily with Velcro however they had helpfully stapled a number of them which made removal more annoying than it should be. Washing the cushions was an interesting experience as my washing machine looked like an oil tanker had run aground. However they did all get washed and are at least now clean and don't smell all musty.

One of the seat positions in 12092 required new seat cushions as there had been a leak in the roof which had eaten through the fabric with mould. We managed to fix the leak in the roof with some Sikaflex and also obtain some replacement cushion covers from our new friend Nigel Tuelon who had long looked after the MkIII fleet at Norwich Crown Point which is where our coaches had originally come from. The coach looked excellent once the seat covers had been refitted and a thorough vacuuming of the floor made it look very presentable. There was some final trimming items to be taken care of like gluing back up some of the end wall fabric and also removing the awful silver painted plastic trim along the side of the walls.

The innards of 11074 were less of an issue; it was found that vacuuming the surfaces of the seats bought them back to their almost "as new" appearance so no removal of the fabric was required. The carpet too was just covered in dirt and dust and after a through vacuuming the carriage really did look most excellent. One of the cushions had a nasty tear in it but we'd acquired a replacement cushion in the same fabric, albeit a slightly bigger cover, and once fitted you didn't really notice any difference.

10206 is definitely more of an ongoing challenge! The seating accommodation was relatively quickly cleaned but the carpet was a mess. Fortunately a friend of the railway happened to be there one Saturday and offered to give us a free clean using his professional carpet cleaning equipment. That has at least made the carpet look more presentable. We'd work on changing the carpet in the fullness of time but at least it wasn't dirty now.

The kitchen/buffet area is still a massive challenge but not unsurmountable. We started by tidying the buffet area to make it clean and hygienic including removing the daft display fridge which itself seemed to be an electrical hazard. With a lick of paint and varnish and also some posters made up it makes for a fairly pleasant place to stand.

Bogs!

The toilets on all 3 coaches were in need of some attention as in usual BR coaching stock style had all sprung leaks and/or were refusing to flush. To date we have 3 out of the 4 toilets now working on 12092 and 11074 by lots of work by Tony and Steve Rowston. The design of the toilets actually dates back to Mk1's with Victory Valves controlling the flush and long-since-obsolete mixer valves for hot/cold water and air operated flow valves for the foot control of the sink. The Victory Valves have

all been replaced with the ait valves all going through overhaul/replacement at the moment. In the long run we will remove the mixer valves and replace with a fixed blending valve so we can provide warm water to wash your hands in. Amazingly all HST toilets still use this antique equipment behind the panels – FGW famously using solenoids to operate the Victory Valve!

Danger – High Voltage!

The real fun started when we delved below the coaches to see what was going on with the ETH equipment. We first looked at 12092 and after plugging it into 41001 put all the trips out and just checked that it could take 850V up its connectors without blowing anything and that 41001 stayed in interlock – there is a wire that goes down the train that has to make a loop back to the power car, without which the ETH contactors won't stay in. 12092 didn't have any batteries at the time so we removed the battery charge fuses and after plucking up courage we eventually put the MA MCB on and waited for the MA to start up. The contactors came in, the MA set started up but then after about 10 seconds it stopped with the red "fuse blown" light winking at us. Oh. That wasn't good. We decided we'd leave that and come back to it later.

Next was 11074 which did have some batteries in which we'd been working on trying to revive as the voltage had dropped considerably whilst in storage. Fortunately Mark Whitcombe has a proper intelligent 110V battery charger that attempts to de-sulphur the batteries over a period of days. It's had quite an effect on the state of charge and although not perfect they're "good enough" to be going on with. 11074 has a shunt wound MA set – as opposed to 12092's series wound monster – which makes life a lot easier; the motor just starts off some contactors and start resistors and then runs at a constant speed without any electronic intervention. You can then debug the alternator side "at your leisure". We woke up the TDAVR controlling the alternator and found that the output voltage was very low – something around 225V phase to phase, almost exactly half what it should be. After a night sleeping on it we came back the next day and metered out the bridge rectifier feeding the thyristor to find one of the diodes had gone short. Fortunately we carried spares of these and after a repair restarted the MA to be presented with 415V ac 3 phase! The battery charger MCB was then closed and up came the battery charger – all was well!

Fire, Fire!

10206 has the same arrangement as 11074 for the air con side, albeit there is an additional MA set to run the catering equipment. We'd start with the 3 phase MA set as we were missing a Catering Isolation Switch (CIS) which made starting the single phase one a little dangerous. As with 11074 we started with just the coach plugged in to check all was well and nothing went "pop". Then we put the MA MCB in and up came the MA set. Excellent. We switched off again and Ben went round the other side of the coach to check what the MA controller was doing in terms of 3 phase. After an "OK" I again pressed down the MA MCB to hear a "clunk"; "that's odd" I thought. It was, as 10 seconds later there was a loud bang and two sheets of flame streaming out of the MA contactors! I quickly turned off the MCB and then went and changed my underpants! What had happened was a TDR relay that holds off MAC3 closing – which itself shorts out the start resistors – had got stuck. Consequently MAC3 immediately closed when I closed the MCB and the motor tried to start directly across the 850V supply! The offending TDR was treated to a mini overhaul and lubrication and from that point forward we haven't had any issues!

Following that scare we continued with our work and noticed that the 3 phase was very high at around 650V phase to phase. That seemed to suggest that the thyristor wasn't firing....and it wasn't as there was no gate pulse. I took the offending board home with me and found that the feedback resistor for the gate firing mechanism had burnt out; in fact the specification of the resistor is slightly dubious as we noted that the (different) single phase MA controller has the same value resistor but twice the wattage. So I replaced with two resistors in parallel to spread the load and also changed the thyristors as a matter of course. Reinstalling the board saw the 3 phase come into regulation at around 415V. Again, the battery charger gave no issues on the coach!

Cool Customers

The air conditioning under the two coaches was a bit of an unknown but the gauges showed they

did both have some gas left in them. Firing up 11074's air con on the test button got the compressor and fan running but after 10 seconds it would drop out due to lack of pressure. 10206's ran fine whilst 12092 had nothing in it and we couldn't run it anyway due to the ongoing MA issues. So we called out a local air conditioning engineering outfit who topped up 11074, checked over 10206 and also Nitrogen tested 12092 and found there were no leaks. At least we knew where we stood now – we could call them back once 12092 was up and running.

The MA controller on 12092 still put up a huge fight and even after checking it on the bench at work it was still blowing fuses. The problem here is that it is a series wound machine which required speed control of the motor in order to keep it running at 1500rpm / 50Hz. The speed control is derived from the 415V 3 phase output which itself is obtained off the back of the excitation of the 110V battery charging alternator. As it has all this self-reliance to make the motor run having only 5 -10 seconds before the fuse blows means working out where the problem might lie is devil's own job. So we took the decision to remove the MA controller unit and send it away to a specialist who could bench test it on a purpose made test rig and test it and fix it if needs be. At least we would then have a "known good" bit of hardware to move forward with.

Stand Stills

One of the key items in the kitchen is the Stills Boiler which on closer inspection needed a complete re-wire and re-plumb. The boiler resembles a thermo-nuclear device with a copper body and lots of pipes and wiring round it. However it's very simple; water is pumped in and controlled by two float switches; the bottom one turns on/off the heater whilst the top one turns off/on the pump. When the pressure reaches around 4 psi a pressure switch turns off the heater. It then self regulates so you get piping hot water/steam out of the top and slightly less scolding water out of the bottom for the sink. The metalwork has all been brushed off and given a coat of red oxide/grey paint ready for the boiler to be reinstalled and reconnected before we can work out if it actually still works. We've purchased a new pump for the boiler as weirdly it was missing!

One other item that was missing was the Catering Isolation Switch (CIS) which shuts down all the kitchen equipment with one switch. We opened the bunk cupboard only to find lots of wires spewing out of the floor! Strangely this is usually done using a large 5 pole switch but we decided to take a modern approach to the problem using contactors and a remote low power switch with indicator and padlock off position. Steve made an excellent job of the installation using a new 1kV contactor plus a recovered power car compressor contactor. Alas the compressor contactor is a bit daft as the coil cannot take 110V continuously – the power cars have an economy resistor switched in on an aux contact to keep the coil in at low voltage. So we're changing to an off the shelf 110V DC continuously rated coil to "do the job properly".

Now the CIS was installed we could try firing up the single phase catering MA which was completely uneventful. The MA MCB was switched on, the motor came up on start resistors and then ran at full speed. Some further checking showed 240V 50Hz coming off the alternator. Excellent!

Playing Trains Part 2

The launch of 41001 into public service deserves a short mention here; I say short as it went without incident apart from the headlight transformer deciding to pack up at the start of the event! That was it – nothing untoward technically with the power car not missing a beat. And usefully we also finally found out what the problem was with taking initial power and sometime not getting it. During the day a picture emerged that the lack of power take up seemed to be directly related to who was driving. John Zab would normally get power whilst Stuart didn't. Lots of head scratching and then the light bulb came on. It turns out that our wire 4 doesn't overlap as much as it should when the power controller moves from Off to N1; it has to provide an overlap to bring the motor contactors in and obtain interlock. A production power car has a longer gap between OFF and N1 than 001, hence the issue. Sometime we'd take a look to see if we could massage the contacts to give a larger overlap but on modifying their driving style the lack of power when notching on problem almost disappeared.

Right: 41001 approaching Hotchley Hill on the public launch weekend with several admirers enjoying the sound and sight!
24/05/15 © David Senior

Below: The counter in 10206; "Buffet (1)25" fully stocked for the weekend, offering a small range of light refreshments
24/05/2015 © Tony Shaw



Eagle eyed readers will have noticed we have been rather pre-occupied with the coaches this period but we did get a little bit of work done on 41001 towards the end of the quarter.

Leaky Pipes

We'd noticed that there had been a not insignificant loss of main res air pressure when the power car was coupled to the coaches and initially thought this was just

the result of several small air leaks. But then we noticed the transmission valve on the E70 was leaking air quite badly, something that had got worse since we started working on the power car. So the valve was removed in June and sent away to a brake specialist for overhaul. We're happy to report that whilst not perfect – the company doing the work needed more time than we would allow to work out why it was not fully air tight – it is vastly improved on what it was like.

Something Dave Moore had been badgering Ben and myself about was changing "those dreaded Lucifer valves" on the reverser. The old type EP valves are very prone to the coil breaking down, weak actuation...in fact they don't have a good point. The production power cars were changed a number of years ago over to MAC valves from the USA which are excellent industrial valves and make a much more reassuring pneumatic air noise when actuated! These were relatively straight forward to install as Dave had kindly provided two valves salvaged from an HST reverser – don't ask – so were complete with mounting plates and hardware. Some new plastic piping was installed to remove the old metal pipework and use of push fit air lines makes life a lot easier and less prone to

leaking. The reverser now changes direction with some gusto so that's another possible problem sorted. Sometime the E70 will need the same treatment.

One amusing incident during our running days was the disappearance of one of the cooler group roof slats. We only noticed when studying photos of the event with the slat in place at the start and missing half way through. Upon removing the bodyside cover on B side we found the errant slat which in fact turned out to be an old floorboard! Needless to say it won't be going back in!

Engine Fettleing

By the end of June we were doing some Valenta fettleing work as this had seen minimal attention over the past quarter. And oil sampling point was installed using the original blanked off hole in the pipework leading to the oil filter. This allows us to take an oil sample with the engine running without having to resort to removing crankcase doors and risking life putting your hand in the sump! The overly long oil hose to the overspeed switch was also changed for a custom made short flexi hose – much more satisfactory. We'd also stopped off at our storage site to get a better turbo oil drain pipe for the NA256; the original pipe was a solid affair and very difficult to get to sit straight on both flanges – one on the turbo and one on the Valenta. The modified pipes are much more satisfactory with two concertina bellows in to allow the pipe to go floppy when you're installing thereby assuring both flanges are perfectly flush with the mounting surface.

We also took the opportunity to check and adjust the valve clearances on S508, something we hadn't done since we took the engine under our care. Fortunately we're pleased to report that all valves were spot on except one exhaust valve which was about 1 thou out. Not bad really!

On firing up the Valenta to check our work was sound we thought we'd put the coaches on to cool them down a bit as the weather was pretty warm. The coaches had then decided that we'd ignored them working on 41001 and went on strike! 11074 woke up enough to put its battery charger on but then when aux+a/c was selected.....nothing. We tried again....nothing. So much scrabbling round on the ballast and some confused looks – what on earth was wrong? We decided to move onto 10206 which then wouldn't even charge its batteries. A look at the cell voltage and it was all a bit sad down in the low 80's. So we took to changing a number of cells over and perked it back up to around 93V. Another try on 10206 – several hours later I might add – and success. Another click of the control and the air con fired up and within 5 mins it was beautifully cool in the seating area of the RFM. 11074 would have to wait until the following day.

Update Contacts

After sleeping on it we went back to the FO to see why the air con wouldn't wake up. The fault was simple – everything was dead; no vent fan, no compressor, no cooling fan. But the strange / annoying bit was that the circuit diagrams didn't represent what was in front of us. So guessing was the name of the game and after a good poke around we established that the vent fan contactor – not marked as such, just a guess, had stopped working. Indeed the coil had gone open circuit and the shaft jammed. Fortunately we have lots of spares so a quick rummage found a nearly new Telemecanique contactor which would do the job perfectly. A quick installation and test showed everything to be back in order on both coaches.

Meanwhile work inside the coaches had continued apace. We had been donated a replacement nearly new oven and hob by Nigel Teulon to replace our ageing death trap and so the old cooker was ejected from 10206 and the new shiny one installed. The CIS 3 phase contactor was also changed for a Siemens off the shelf product to replace the bizarre overheating contactor we had originally installed. Now was the time to see what worked in the kitchen. First the new oven – which worked a treat off the single phase MA now humming in unison with its 3 phase brother. Then the large microwave – that worked, although we didn't try it for long for fear of being cooked ourselves. The small microwave didn't work but we had one to be going on with so that's fine. The toaster was very broken – the rotating mesh that carries the toast along was seized solid so that's been removed and probably won't go back in anyway. The large fan oven had power but the fan didn't switch on – we had lights on the front. We didn't want to cause a fire so turned it off and have now set to one side for repair – we have an oven to be going on with anyway. Then the scary

bit – the overhead grill! This works off the 850V ETH directly, so with our fingers crossed put the MCB in and stood back. And amazingly it just worked and got bloody hot too. So not a bad kitchen set up to be going on with. A lot of hard cleaning done but we'll need to address the flooring before we go much further.

After a day sorting out the coaches we focused our attention back to 001 and guess what? It had become jealous that we'd been working on the coaches now.....

The Fuel Sinking Pump

We had a series of jobs lined up but we spotted that the fuel lift pump had developed a squeak when it stopped. We had a detailed listen and thought it wasn't particularly pleasant. So suspecting a lack of grease we took off the top bearing cover to find 40 year old gold coloured grease all waxy and horrible. So we cleaned that all out before putting it back on again so we could hook up the grease gun and fill with grease.....which turned out to be a BIG mistake. We pumped away and we thought "hmm, this is taking a lot of grease". Once filled we switched on the pump and it made an absolutely awful noise! Oh no – what on earth had happened? So we took off the brush inspection covers to find grease all over the commutator, brush gear, etc - the seal had failed at the top of the motor. The only option now was to pull the pump out and get it on the bench. That's not so bad at Neville Hill, but in the dirt at Rudd where 001 is parked it's a nightmare. Getting the pump off was challenging but after some perseverance we managed to get the pump on the bench and set about stripping the motor. We spent a good hour cleaning the commutator, brush gear and brushes; we also took the opportunity to gently clean out the comm segments with a Stanley blade. Reassembly was relatively easy and it all looked fine, but then came the fun of re-installing the motor.....

It turns out that a) Crewe didn't cut the pipes very accurately on 41001 and b) its a stupid arrangement which to this day causes headaches on the production fleet! We tried everything to get the fuel feed union to connect properly, we all had a go before in desperation we said "let's split the motor and pump" so you could get the pump onto the pipes and then put the motor back on. That worked - we at least had pipes on! But then putting the motor back on top it wouldn't line up with the flange properly which shows how "off" the pipes are. But eventually after much swearing, thoughts of resignation, and so forth the gallant team got the flange bolts back in before re-attaching the pump to its bracket. A quick test showed it all working again without a squeak but with rather noisy commutator at the moment - we think that's just the brushes which went back in a random order! It's certainly better than it was - it primed instantly and also seems to run faster as it has always sounded a bit laboured.

Proof with be over the next few weeks!

Please Donate to 41001

Following a great deal of hard work and many kind donations to Project Miller, Prototype Power Car 41001 is now fit for operation on preserved railways. Restoration and operation of 41001 is carried out without financing from 125 Group, Valenta Diesels Limited or the National Railway Museum. There are always smaller restoration tasks to be done, plus ongoing maintenance and operating costs to cover and we are most grateful for any donations to keep 41001 running

If you visit the www.125group.org.uk website there is a web link to a paypal donations page. Or you can cut out the middle man and transfer directly to the HSDT bank account, the details for which are: HSDT Limited Sort Code:09-01-28 Account Number: 00585742
Please put your name as reference so we can track donations. Or send a cheque made payable to HSDT Ltd and post to Project Miller, 21 Elmwood Close, Woodley, Berks, RG5 3AL.

If you are donating, and are a UK tax payer, then you can use Gift Aid to HSDT Ltd to help keep 41001 operational. For an HSDT Gift Aid form please E-mail chairman@125group.org.uk or write to the above address. **Thank you.**

Sales Report

It was a busy few weeks from late May to mid June for the sales team. We opened for the first time using the "on board shop" in the former staff area of the Mk3 RFM on the 1st public running days of 41001 at the GCR(N) over the late May bank holiday. On the weekend of the 12th—14th June we were out and about. 12th & 13th we supported the North Norfolk Railway's Diesel Gala with our stand set up on platforms 2 & 3. At the NNR I was helped by committee members John Zobernik and Sam Dilworth, and local member Chris Rose. On Sunday 14th, John and myself returned to Ruddington to support the EE running day at the GCR(N). Sales at both events were steady, but it was more about getting out and about to support preserved lines. The full range of sales can be found on the sales section of the website.—**ANDY WADE**

Members' Photographs Wanted for 2016 Calendar

Members are invited to submit photographs for inclusion in the 125 Group 2016 Calendar. Pictures must be of good quality, can have been taken in any year, must include an image of a HST and must be taken by you! Entries will be judged by the committee and their say is final. There is no monetary reward, just the honour of seeing your picture in the calendar. **Entries should be Emailed to: secretary@125group.org.uk , closing date 1st September 2015.** Please send pictures with full high resolution, at least 5Mp (5 Mega pixels, e.g. 2000x2500 pixels) and remember to include caption details such as location, power car identities, train service and your membership number. All photographs will be retained for possible future use in OTF, on merchandise and other 125 Group and Project Miller promotional activity for which no payment will be made. Maximum of 10 entries per member. Good luck!

AGM Report

The 2015 Annual General Meeting of the 125 Group took place on 23rd May at Ruddington, Great Central Railway (Nottingham), venue was our own Mk3 First Open coach 11074. The full existing committee were re-elected en-block (see page2 of this magazine for full list). Group finances remain respectable therefore the annual membership fee will remain at £17. 'One Two Five' magazine will continue to be produced four times a year. A full update was given to the meeting on Project Miller, progress with 41001 and our recent acquisition of Mk3s FO 11074, RFM 10206 & TSO 19092, much of which appears in this magazine. After the meeting, attendees were given a tour of our fleet.

Pennine Railway Society Talk

A reminder that 125 Group's John Zabernik and James Trebinski will be giving an illustrated talk on 125 Group and Restoring Prototype HST Power Car 41001 at the Pennine Railway Society meeting on 7th October. Venue is 'The Salutation Inn', South Parade, Doncaster, DN1 2DR, starting at 8pm. All 125 Group members are assured of a warm welcome!

Railtour Report

Thu 14th May 2015 UK Railtours operated the 'Fullers Rail Ale 125 Special' using East Midlands Trains HST 43047 + Set NL03 + 43049 from St.Pancras running though to Barrow Hill for the VIP/Trade Preview Day of the Rail Ale Festival. The tour also called at Alfreton for a coach connection for an alternative visit to the Ecclesbourne Valley Railway. Schedules were 1Z28 STP-Barrow Hill via MML, Toton Centre and Chesterfield and 1Z29 1620 returning via the same route.

Forthcoming Railtours

Sat 26th Sept 2015 Cotswold Line Promotion Group '**The Cotswold-Pembroke Coast Express**' FGW HST from North Cotswold Line stations to Tenby. Tickets are now available for CLPG non-members. For further details and bookings see www.clpg.org.uk or call 01386 701528.

Sat 28th Nov 2015 UK Railtours '**The St.Nicholas Fayre in York 125 Special**' East Midlands Trains HST from St.Pancras and MML stations to York. For further details and to make bookings, see UK Railtours website www.ukrailtours.com or call them on 01438 715050.

The much heralded electrification programme that is to see the Great Western route electrified to Swansea, Bristol, Newbury and Oxford, the Midland Main Line and Trans-Pennine routes wired has been the subject of much speculation about the ability of Network Rail to hit the project deadlines. In an announcement on 25 June, the Department for Transport (DfT) confirmed that there were delays associated with the electrification programme, with the Trans Pennine and Midland Main Line projects being paused, and resources concentrated on the Great Western scheme. The announcement did not make it clear how long the Trans Pennine and Midland electrification schemes have been paused for. Subsequently, it has been confirmed that work on the core route from Maidenhead out to Swindon – Airport Junction to Maidenhead is being wired under the Crossrail project – is being prioritised, presumably to allow the new IEP sets to use their electric traction capabilities.

Fleet Cascades

The Great Western electrification scheme is key to implementing a number of fleet changes that affect the Great Western, ScotRail and Northern fleets, including the Government commitment to remove Pacers from the Northern franchise.

Central to this is the introduction of new IEP trains as HST replacements on Great Western routes in a mixture of electro-diesel and straight electric versions. Wiring to Swindon as a priority is a direct result of this as the diesel performance of the new fleet is lower than under electric power. Delivery of the new fleet is scheduled at the rate of one set per week from May 2017 to February 2018 (36 5-car electro-diesel sets), followed immediately by 21 full length electric only sets through to July 2018. It is not yet clear if the introduction of the electric-only sets will be delayed by delays to electrification.

This then triggers the transfer of 27 4/5-car HST sets (54 power cars) to ScotRail (see OTF issue 109) which has a knock-on effect of making over 40 Class 156, 158 and 170 sets available for transfer elsewhere, which could help replace Pacers.

AT300 to South West?

Prior to May's General Election the new franchise award to First for Great Western included a proposal to build a new fleet of Hitachi AT300 trains (a variant of IEP) for the Paddington – Plymouth/Penzance route, which would replace the remaining FGW HST sets. However, buried in the announcement was a statement that this depends on finding suitable financing and sign-off of the financial case by the DfT. At the time of writing, the order has still not been confirmed publicly. Assuming that the AT300 order is confirmed, the last HSTs should leave the FGW fleet in January 2019, with the First owned sets being the last to go.

Unusually, the franchise agreement is prescriptive of what happens if the AT300 order is not confirmed. The plan is for retention of the First owned HST fleet (5 sets) and 16 Angel Trains sets to provide services to the South West. Power cars retained would be 12 First and 30 Angel owned.

HST Fleet Future

The above developments have major implications for the HST fleets, particularly those with East Midland Trains and FGW, where long term retention may now be more likely. Decisions on future deployment are becoming more urgent as sets retained beyond 1st January 2020 will require modifying to meet the mandatory PRM-TSI (Persons of Reduced Mobility Technical Specification for Interoperability) requirements. This work needs to be put in place in time to meet the deadline, taking into account that a large proportion of the former BR multiple unit fleets also require this work to be undertaken by the same deadline. The table below summarises the current position with fleet replacement and any subsequent redeployment.

* *includes two power cars on daily hire to Virgin East Coast.*

TOC	Owner	Fleet size	Future
FGW	Angel	85	54 to ScotRail. 30 kept if AT300 not proceeded with, otherwise off-lease. 1 off-lease?
FGW	Porterbrook	22	Off lease. Replaced by IEP.
FGW	First	12	Retained if AT300 not proceeded with, otherwise off lease.
Virgin EC	Angel	23	Off-lease. Replaced by IEP.
Virgin EC	Porterbrook	9	Off-lease. Replaced by IEP.
EMT	Porterbrook	24*	Retained? Electrification paused.
Cross-Country	Angel	5	No replacement announced.
Cross-Country	Porterbrook	5	No replacement announced.
Grand Central	Angel	6	Off-lease. Replaced by Class 180s from FGW.
Network Rail	Porterbrook	3	No replacement announced.

30, 20 & 10 Years Ago

By "13601" based on an article by Paul Webster

July to September 1975

The main event during this period was the Rail 150 celebrations held at Shildon works which opened on August 24th with the full rake of 252001 present, apparently causing a stir as it was blocking photographs of steam locomotives! The set also took part in the grand cavalcade on August 31st with strict instructions that the HSDT set must bring up the rear of the cavalcade and "in the event of failure of any other loco under no circumstances must this follow the 125". In preparation for the start of the 125mph service from October 1976 the line from Wotton Bassett to Westerleigh via Hullavington was closed from May 5th until October 5th to allow 20 miles of track to be renewed and a number of bridges rebuilt. The first production Class 253 power cars were on show to the public during the Crewe Works open day on September 20th, 43002 was almost fully complete and featured a black and yellow livery on the main part of the bodywork with standard blue and grey on the section around the guards van matching the usual rolling stock livery scheme at the time. 43003-020 were present in various forms from fully complete power cars down to nothing more than frame-works.

July to September 1985

Headline news was the setting of a new speed record for a train with passengers on board. To publicise the relaunch of the "Tyne Tees Pullman" from the winter timetable a special non-stop Newcastle to Kings Cross run was arranged on September 27th. The target was to travel the 268 miles in under 2.5 hours and the two power cars were specially chosen- anything not wearing the new executive livery and anything even slightly unreliable was rejected. This meant four power cars were short listed; 43045 was then rejected due to overheating problems and 43159 was found to have worn tyres resulting in a theoretical maximum of 136.5mph- well short of the 145mph hoped for. The use of Western power cars was rejected- regional pride was clearly still in place on the Eastern so the selected consist was formed of 43038, 41065, 40511, 41066, 40734, 44045 and 43158. The set completed the journey in 2hr 19min 37sec and just achieved the world diesel speed record for a passenger train when it reached 145mph down Stoke Bank. The set returned to York the following day at a more leisurely 125mph and 43038 was detached from the set and became the first production power car to see the inside of the NRM where it was named "National Railway Museum The First Ten Years 1975-1985" by Dame Margaret Weston, Director of the Science Museum. One other naming took place during this period on September 16th when 43098 was named "Tyne and Wear Metropolitan County" at Newcastle Central station by Councillor Jennie Sheasan, Chairman of the County- this naming continued the Eastern region policy of naming power cars after places along the route.

From the summer timetable the "Yorkshire Pullman" was re-introduced from Leeds departing at 0730 for Kings Cross and returning at 1755 from Kings Cross to Bradford. A set refurbished in the new "executive" style was provided with red seat moquette in standard class and brown in first class along with a state-of-the-art cellular telephone in a booth at the end of one of the TF coaches. Another new feature in second class was the provision of three "curious" diagonal red stripes either side of the doorway at the end of each passenger saloon. A new advertisement was filmed during this period which featured 43078 being "nicked for speeding" by police-car liveried 37093, the advert was in the style of a contemporary car advert and ended with the line "see your dealer about an InterCity 125". The advert was filmed between Haltwhistle and Bardonia Mill and can be viewed on line at [youtube.com/watch?v=iN7naLLeBOA](https://www.youtube.com/watch?v=iN7naLLeBOA) - watch out for a blue/grey power car amid the collection of freshly repainted executive liveried traction.

The Crewe remodelling closure caused some HST operated Cross Country services to be diverted via the Independent lines, 43185+186 were noted on the 1210 Liverpool to Penzance taking this route on June 8th. 43182 was reallocated from Laira to Neville Hill on June 30th and Derby Works were working on collision repairs to 43060 and guards van removal on 43039/041/043/057/132 during this period.

July to September 1995

HST news this period was dominated by tragic events which unfolded near Maidenhead on September 8th which resulted in the death of one passenger, the first passenger fatality in two decades of HST operation. The 1830 Paddington to Swansea was operating in reverse formation with 43190 leading when the fastenings on the number three fuel tank (located between the battery compartments) came undone in the Taplow area whilst the train was running at around 120mph. The failure of the fastenings caused the tank to drop and drag along the track, the tank became ruptured covering the train with atomised diesel which then ignited. The ensuing fire engulfed the outside of the front three carriages and the fire entered toilet plumbing cupboards in the two leading carriages. Substantial amounts of smoke entered several coaches at the front of the train creating general concern throughout the train, with increasing desperation towards the front where passengers had to crawl along the floor due to the intensity of the smoke and fumes. A number of windows were smashed by passengers anxious to get fresh air. As the train came to a halt a number of passengers jumped from the train on the unsafe side and made their way across the tracks to the far side, one of them was struck and killed by a HST travelling at 125mph on the adjacent up main line. The train was taken back to Old Oak Common depot and impounded for two weeks whilst detailed examinations were carried out by Health and Safety officials. This resulted in an urgent bulletin to all HST operators to check all power cars to ensure the fastenings on the fuel tanks were in good condition. This accident led to the provision of safety cards on Great Western and later more detailed and illustrated evacuation posters on all trains nationwide.

It was announced during August that four Porterbrook owned power cars operating on the Midland Mainline would be converted to VP185 engines to extend the evaluation of the new engine type, these conversions were to be carried out in late 1995 and early 1996 with 43047 expected to be the first, followed by 43075, 43058 and 43082. The announcement proved to be premature as the first rail application VP185 (operating in 43170) seized up in service in early September and 43170 reached Laira on September 9th and remained there for three months. Just one power car was named during this period; 43066 was named "Nottingham Playhouse" at St Pancras by Richard Brown, Director of Midland Mainline on August 24th to mark a partnership arrangement between the Midland Main Line and the Nottingham Playhouse- the nameplate was of a non-standard style featuring the font style used by the Playhouse.

July 3rd saw the commencement of "Eurostar link" services from Edinburgh to Waterloo and the first day saw 062+065 operate the 0830 Edinburgh to Waterloo and 43070+078 on the 1246 from Waterloo to Edinburgh. On July 11th 43071 was taken by road from Laira to Crewe for repairs to collision damage sustained over 15 months previously at Newton Abbot, it joined 43180 which was already at Crewe awaiting a replacement cab following the accident outside Edinburgh nine months previously.

Below: 43092 at Kings Norton when it was used as a temporary replacement for Birmingham New Street following a fire. © *Chris Martin*



Power cars were still occasionally straying from their normal routes for a day or two during this period but 43108 spent 8 days away from ECML duties after it replaced 43178 at Neville Hill due to a radiator defect on 43178 and no other replacement power car was available. 43108 was paired with 43008 and worked the 2330 Leeds to Newquay on July 7th which trapped it on ICCP pool Cross-Country workings until the following weekend, during its holiday it visited Newquay, Swansea and Paignton, made a station call at Kings Norton when Birmingham New Street was closed by a fire, changed partner to work with 43157 for the last two days and spent a day at Laira when industrial action paralysed services on July 14th. July 13th saw repaired 43178 used by East Coast to partner 43113 on the 0704 Bradford to Kings Cross and 1200 Kings Cross to Inverness whilst on July 21st 43060 was loaned from Midland Mainline to work with 43111 on the 1200 Kings Cross to Inverness. Other stray power cars included Cross Country's 43097 working with 43074 on the 0725 Leeds to St Pancras on July 26th and East Coast's 43095 paired with 43077 on the same train on August 10th. Very unusually 43108 replaced 43112 at the rear of the 1230 Kings Cross to Inverness on Sunday August 13th at Doncaster due to a broken windscreen on 43112. 43023 was loaned to the West Coast fleet at Longsight for a few weeks to cover whilst 43164 visited Laira for an "F" exam. 43058 spent a couple of days away from the Midland Main Line when it was loaned to Cross Country on August 28th working with 43196 on the 0943 York to Exeter and 1607 Exeter to Leeds and the following day it was loaned to East Coast to partner 43113 on the 0710 Leeds to Aberdeen. 43119 was borrowed by Cross Country to partner 43062 for four days starting on September 13th and visiting Bournemouth every day.

A couple of notable delays occurred to Cross Country services during this period; on July 10th the 1219 Bournemouth to Edinburgh was 218 minutes late from Sheffield following a brake fault on 43079 at Leamington and diversion via Barrow Hill to turn the set to enable 43092 to lead for the

rest of the journey. The 1300 Plymouth to York took a wrong route on August 18th when the train (powered by 43155+158) ended up in the sidings of Ferrybridge power station after initially diverting from its booked route to avoid a lineside fire- media reports at the time described the hapless driver as getting "lost"!

July to September 2005

Deployment and re-deployment of the various redundant HST vehicles continued to dominate the news during this period. The Virgin "surfboard" fleet battled through the summer Saturday operations and following the end of their spell back on Cross Country duties 43070/080/087/157/193/196 were surplus once again but not for long. 43070/087/157/193 and two sets were leased to Cotswold Rail for use on charter and possible spot hire operations, 157/193 were taken to Oxley on September 16th and 070/087 were taken to Tyseley on October 14th. 43196 was hauled to Brush, Loughborough for an overhaul ready for it to join the NMT fleet where it was expected to replace 43067 which had joined the NMT fleet on a temporary basis. Plans for the First Group owned sets started to emerge and one of them was dragged to Laira on July 5th by 57603 only to be found unsuitable for a quick return to traffic and replacement vehicles were brought from Bishops Lydeard by 47150 on July 14th with the rejected carriages heading Laira to Bishops Lydeard to return to storage on the same day. The additional set was intended to allow the overcrowded 0645 Oxford to Paddington to be turned over to HST operation releasing a Class 180 to ease loading issues on a pair of West of England to Paddington workings. Extra power cars were already on hand in the form of trial MTU fitted 43004/009 and availability was eased during this period when 43005 returned to traffic in late July following repairs to fire damage sustained on March 5th. 43029 was noted back at Laira on August 13th after receiving underframe attention following minor damage sustained at the rear of the set derailed at Ufton Nurvet the previous November- it received bogies from stored 43101 but did not immediately re-enter traffic.

Trails of the new MTU engines in 43004 and 009 continued with assorted highly positive press reports being issued by FGW and Angel convincing the rest of the railway media that the new engines were performing faultlessly. More close scrutiny could be found in the pages of "One Two Five" where we reported that the 1,000 engine hour maintenance checks required a full oil change (vs every 8,000 hours for a Valenta) and that 43009 had only covered 43,227 miles in the first 90 days of operation – some way short of the average of 730 miles per day covered by an FGW power car. To achieve comparison data 43170 and 43179 received upgraded VP185 engines and were paired together during September. Meanwhile GNER issued the statutory notice in the OJEU (Official Journal of the European Union) calling for bids for the supply of new engines for its HST fleet. It was expected that three companies would place bids; MAN B&W with its VP185, MTU with its 16V4000 R41 and Cummins with its untried QSK60 engine.

An accident at Neville Hill depot on September 10th resulted in serious cab damage to 43049 when it came into contact with GNER set EC53 which was being shunted around the depot ready to work the 0710 Leeds to Aberdeen. The incident also seriously damaged GNER TF 41043 which was expected to result in the withdrawal of this coach. 43074 remained out of traffic following impact with OLE equipment sending 25kv through its control equipment requiring the power car to be rewired and MML availability was further hit when 43057 caught fire at Bedford on September 15th. Introduction of the new 9-car Class 222 sets onto some HST workings allowed MML to send short-term leased 43069/086 back to Porterbrook at the end of September.

Three HST power cars were named during this period; normally such things get higher billing when compiling this section but when you see what two of them were called you will see why they have been left to the end! On June 30th 43009 was named "First transforming travel" at Swindon station by David Margesson MBE, DL, The High Sheriff of Wiltshire. The name was to 'reflect the vision of First Group PLC and was tangible proof of its commitment to transform rail travel over the next decade and beyond'. First Group's managing director Moir Lockhead made a speech extolling the core values of 'energy, ease and reliability' before the power car shuffled off shamefully back to Bristol back-to-back with 43139. 43009's mantle as the power car with the worst HST name ever lasted for six days when 43004 was named at Cardiff Central on July 6th by ITV weather girl Sian Lloyd. On

one side 43004 was named "First for the future" and on the side unveiled at the ceremony it was named "First ar gyfer y dyfodol" and this time it was down to FGW Managing Director Alison Forster to repeat the 'energy, ease and reliability' mantra spouted by her boss the week before. 43004 arrived and departed back-to-back with 43139 for the ceremony. On July 22nd 43135 was named "Quaker Enterprise" at Bristol Temple Meads in recognition of the contribution made by the Quaker movement to the early development of the UK's railways. Two members of the historic Sturge family unveiled the name, 100 year old Mrs Kathleen McLaren and 9 year old Rebekah Sturge pulled back the curtains.

TOC & Industry News

by News Editor 43074

Our thanks for news this quarter to John Weaver, Dan W, 43290, 43021, R.McLean, 43054, 43094, 43102 and the Duke. Without this information we could not bring you this section. Please do send all interesting sightings to news@125group.org.uk

crosscountry 

The extra diagram to cover for Voyager shortage continued for the entire three month period, In addition to the two fixed diagrams, a set worked 1V54 0632 DEE-PLY, 1E73 1725 PLY-LDS on Tuesdays and Thursdays and 1V46 0640 YRK-PLY, 1S53 1325 PLY-EDB on Wednesday. These linked in with the scheduled additional services on Mondays and Fridays.

Paignton, Penzance and Newquay returned to the XC HST operation area for Summer weekends.

02 Apr Further Voyager shortage saw all four possible diagrams covered by HST on this Thursday. Pairings were 43304+XC04+43357 on 1V44; 43378+XC01+43366 on 1V46; 43207+XC05+43301 on 1V50 and 43285+XC03+43303 on 1V54.

06 Apr Line closure between YRK and LDS, 1V46 started LDS and 1V50 diverted via Doncaster.

11 May 43285+XC04+43303 working 1V50 were 1 hour late off EC for 1V50 and diverted via the S&K to save time.

26 May 1V44 with 43321+XC05+43384 diverted via Normanton with a 20 min delay and set reversal.

14 Jun A blockage south of the BHM meant four HSTs working north of the block. 43301+XC03+43207 worked 1V48 0810 LDS-BHM & 1S41 1103 BHM-EDB; 43321+XC05+43304 worked 1D00 1023 EDB-GLC, 1V64 1200 GLC-BHM & 1E63 1903 BHM-YRK; 43357+XC04+43303 worked 1S36 09.21 SHF-GLC, 1V70 1455 GLC-BHM & 1E75 2203 BHM-LDS with 43384+XC02+43378 working 1V60 1105 EDB



Above: Summer Saturday's at Penzance see the return of XC HST sets, as seen with 43357 prior to working 1E75 1625 PNZ-LDS. 13/06/15 © *John Weaver*



Above: Nameplate and Glastonbury Logo adorning 43026 02/05/15 © *Giles Bearder*

43026 has been named after the founder of Glastonbury Music Festival, Michael Eavis on the 23rd April at Paddington. The nameplate as seen above is accompanied by a cast symbol of the festival and is to mark the 45th anniversary of the festival this year. The plates were unveiled by Michael Eavis with family members and other invited guests who said that this is one of his best moments over the past 45 years of the festival. The nameplate is of normal locomotive size and is very prominent on the power car body side.

Network Rail



43014+43062 were the NMT power cars at the start of April and worked the train throughout the three month period, 43013 obviously undergoing a major exam at EC.

27 Apr Unusual outing for NMT from KGX to Kings Lynn via the Hitchin flyover, then south to Stansted Airport, a move to and from Bishops Stortford, then into London via Tottenham Hale - Temple Mills - Hackney Wick - Canonbury - Finsbury Park and onto Ferme Park.



Virgin Trains East Coast Livery Unveiled!

Not long before OTF111 went to press, EC63 with 43311 & 43312 was released from Craigentenny on 20th June to the world in the new VTEC livery. Up to now the livery had only been applied to the Class 91 & Mk4's and the HST power cars have been adorned with a Virgin "Flash" (refer to the front cover photograph of OTF110), however a rolling programme has now commenced on the HST fleet for the full livery application. The first working of EC63 was 1E07 0830 Edinburgh Waverley—London Kings Cross followed by 1S20 1400 London Kings Cross—Aberdeen. Apart from the cabs on the power cars, the whole livery has been applied by vinyl and is based on the same livery used on the Class 91 fleet with the only noticeable difference being the lack of black around the cab doors & windows. The rolling programme is likely to see the power cars be painted into the livery rather than vinyl as

per 43311/312 and should be applied whilst on heavy maintenance at Craigentenny, whilst the MK3 sets will be rolled through on a fortnightly basis. NL65 is the next set due out in the new livery, which worked north to Edinburgh on 1S22 1500 London Kings Cross—Edinburgh the same day EC63 was released, see further on, however the power cars for the medium term hire in are to stay in the East Midlands Trains livery. Power cars that expected to be out soon in the new livery are 43317 & 43320 which are currently on heavy maintenance at Craigentenny.

Below: 43311 sits at Kings Cross between 1E07 and 1S20. 20/06/15 © James Trebinski



Heavy Maintenance:

Feb/Mar/Apr – 43239 F exam. Mar/Apr – 43299 E exam. Apr/May – 43238 F exam and repaint. May/June – 43208 F exam and repaint. May/June/July- 43320 F exam (still being completed as OTF went to press). June/July- 43317 E exam (still being completed as OTF went to press).

- 01 Apr** 1S16 (43272/317) 53 late Inverness after an incident with the barriers at Lolham level crossing, near Peterborough.
- 04 Apr** 1S16 (43316/290) 34 late Inverness after points problems earlier in the journey at Birtley.
- 05 Apr** 1E19 (43272/317) 46 late after dragging brakes on TGS 44094 (set EC51) at Innerwick. Return journey 1D31 delayed due to track circuit issues at Helpston, 32 late by Leeds.
- 06 Apr** 1S22 (43300/EC56/43308) delayed in the Tollerton area after coach 40720 activated Aycliffe HABD. No fault found after examination, 22 late Newcastle. A signal failure at Colton saw 1Y90 (43208/311) 48 late by Doncaster.
- 07 Apr** 1E11 (43312/318) 49 late Kings Cross after power problems with both power cars en-route. Set T'bird hauled by 67016 on 1D28, 1B88 and 1B89 capped by reaction.
- 08 Apr** 1A41 40 late after alternator problems with 43314 at Newark, 43290 OEO forward then throughout on 1D30, arrival LDS 74 late. 1H10 43064 doing all the work after 43045 shut down with governor issues. 1E25 110 late Kings Cross after a preceding service involved in a fatality at Biggleswade.
- 09 Apr** 43312 and 43314 both failed on NL following problems of previous days, so 43061 hired to work on TGS end of EC57, partnered 43290 on 1S03, 1E25 and 1D36.
- 10 Apr** 43312 and 43314 still not available, 43061 swapped to work on TGS end of EC61, partnered 43318 on 1S03, 1E25 and 1D36.
- 13 Apr** Cable theft at Retford saw a number of services diverted via Gainsborough and Swinderby. All diverted were 1A09 43300/308 100 late, 1A12 43045/064 84 late, 1A15 43313/367 53 late, 1A26 43306/320 78 late, 1E05 43295/299 62 late, 1E07 43296/307 56 late and 1E09 43305/317 73 late.
- 20 Apr** 1B90 (43302/251) cancelled PBO after a broken windscreen on 43302, then ran ECS to NL.

24 Apr Compressor fault with 43300 on EC saw 1E09 start at Newcastle using a MK4 set. After repairs the HST formed 1E19.

25 Apr 1E03 (43302/312) 31 late start after coolant problems with 43302 and brake problems with coach 42191 on depot.

26 Apr 43274 refused to start on HT prior to 1G24 NCL – KGX via Leeds. 43295 did all the work to Leeds, then set-swapped for 43045/064 forward to allow 43274 to be repaired on NL.

28 Apr 1E15 43318 doing all the work Aberdeen – York, and missed out stopping at Inverkeithing as a result, after burning smell reported in 43299. 299 restarted at York after examination.

03 May A failed tamper in a possession at Stevenage saw 1A15 43300/308 (70 late), 1A19 43045/064 60 late and 1S11 43313/367 34 late all incur delays.

04 May 1S16 (43272/307) 71 late at Inverness after being held at Pitlochry due to a failed freight near Blair Atholl.

06 May Plastic on the OHL caused significant delays to services while it was removed, including 1H10 (43045/064) 90 late, 1D24 (43206/239) 85 late, 1S28 (43302/312) 70 late and 1D26 (43272/307) 57 late.

07 May 1D07 (43316/317) cancelled at Doncaster 49 late due to no power 43316 throughout the journey, then ran ECS as 5D07 DON – EC for repairs. 1B90 (43305/306) cancelled at Newark due to a failed freight between Newark and Swinderby.

09 May 43064/NL65/43045 allocated to 1A19 HGT - KGX then 1S26 KGX – EDB, to allow an additional buffet car to be added into the set at Craigentenny then transferred to NL.

10 May 43045/NL65/43064 worked 1E13 EDB – KGX and 1H10 KGX – HUL, with buffet 40805 locked out of use in the set between the TGS and 43064.

13 May 1D33 (43251/295, 66 late and 1E25 (43305/306, 52 late) both delayed after a preceding GC service struck a trespasser in Gasworks tunnel.

15 May 1E15 (43251/295) set swap at Edinburgh, MK4 forward, to allow a power car swap at EC and enable 43251 an engine repair.

18 May CCB repeatedly tripping on 43309 on 1A48 (43277/309), terminated Doncaster and 1D31 cancelled throughout by reaction. Set ran ECS back towards NL, but failed again at South Elmsall with loss of power. 1D27 trapped behind and 122 late, 1D28 and 1D30 terminated Doncaster and the set off 5H10 (43064/081) ran an additional service DON – LDS via Hambleton.

19 May More power problems with 43277/309 on 1A06, terminated Peterborough and ECS to NL for repairs. 1A15 (43238/295) brake problems at HGT, train cancelled and set T'bird hauled by 67016 to NL. 1D09, 1A30, 1D15, 1A41 and 1H10 all cancelled throughout as a result of these two incidents.

21 May A defective E70 on 43206 saw 43206/317 swapped from 1S16 to work 1D15 (38 late), then to NL for repairs. 1A39 and 1D31 cancelled throughout by reaction.

25 May 43064/NL65/43066 worked an additional 1020 Darlington – KGX service, due to Middlesbrough playing in the Championship play-off final at Wembley.

30 May Additional service 1G50 2130 Newcastle – Leeds (43238/277) ran following the Rugby League Magic Weekend fixtures.

31 May A shunting incident involving 43290 and the bufferstops at Aberdeen Clayhills saw 1S11 terminate at Edinburgh and form 1E23, which started there.

02 Jun 1S24 (43206/295) diverted via Stirling and Perth due to signalling problems between Kirkcaldy and Markinch.

03 Jun A fatality at Killingworth involving a Northern service delayed 1S24 (43310/311), 106 late, 1S26 (43309/315), 89 late, 1S28 (43257/306), 52 late and 1E25 (43318/319), 56 late.

04 Jun A MK4 double-failure (firstly at Newark, then terminally at Huntingdon) delayed numerous services, including 1A36 (43318/319, 87 late) and 1Y88 (43257/306, 77 late).

06 Jun 43290 doing all the work on 1S22 with 43296 shut down, 42 late Edinburgh.

10 Jun 1S24 (43277/238) 64 late Aberdeen after GSMR issues at Edinburgh and a spare needing to be found before the service could proceed.

11 Jun 43316 GSMR failure at Inverness caused a 35 late start.

13 Jun Additional services ran to Lincoln in connection with a Magna Carta centenary celebration, including 1B81 0657 Leeds – Lincoln, 1F50 0910 Kings Cross – Lincoln and 1G50 1715 Lincoln –

Kings Cross return, and 1F90 2020 Lincoln – Leeds. 42335 in EC64 lights failed before departure from NL with 5A19. 1A19 started LDS vice Harrogate with a MK4 as a result.

14 Jun 1D30 (43047/066) 54 late Leeds after 43066 fuel leak at Stevenage, shut down there and 43047 doing all the work forward.

15 Jun 1E13 (43206/316) 96 late after a preceding freight failed on the single line section between Kingussie and Kincaig.

19 Jun 1B85 (43367/302) terminated at Grantham (69 late) after a traction motor flashover on 43367. The set was then Thunderbird hauled to NL.

20 Jun The first Virgin Trains East Coast liveried HST entered traffic, with 43311/EC63/43312 working 1E03 and 1S20. NL65 was next for repaint, and worked 1S22 with 43047/066 to allow this to commence at Craigentenny. An additional 1G50 1010 Durham – Kings Cross ran with 43239/313 to enable university students to return home – this was first stop Peterborough and ran non-stop through York!

23 Jun To return 43047/066 to Neville Hill, they ran as 0Z43 1933 EC – HT, via Edinburgh, the ECML and Newcastle. Due to the failure of 43310 suffered a severe air leak on 1Y84, and was swapped at Doncaster to work 1D11 to Leeds, then on to NL for repairs. 43064 was hired to replace 310, and 43064 (TF end)/EC64/43302 worked 1A41 and 1D30.

24 Jun After spending the night on Heaton, 43047/066 completed their journey to NL, running as 0Z43 1000 HT – NL, via the ECML, Micklefield and Leeds. 43064 still on hire but swapped sets overnight, and worked on the TF end of EC59 with 43295 – working 1A06, 1D11, 1A33 and 1H10.

27 Jun 1S16 (43257/314) 122 late Inverness after being delayed by a preceding VTEC service involved in a fatality at Berwick.



Above: Beauty and The Beast? 43315 waits time at Peterborough platform 4 working 1N35 2200 Kings Cross - Newcastle, while what will be "the future", a 5-car Hitachi IEP unit (800 001) sits in platform 5 prior to a night of test running on Stoke Bank. Possibly the first side-by-side photo of HST and IEP? 11/06/15 @John Zabernik



GRAND CENTRAL

01 Mar Loose air pipe on 43465 between Newark and Retford saw 1N93 (43465/468) 30 late at York.

06 Mar 1A69 (43423/480) 49 late Hartlepool due to vandals creating a lineside fire at Seaham.

16 Mar 43423/467 ran HT – Doncaster Roberts Road and return to allow some coaches to undertake tyre-turning, consist unknown.

02 May 1N93 (43468/423) 36 late Sunderland after being examined following brake dust reported entering the coaches at York.

03 May 1N90 (43468/423) 72 late start due to a tamper failing in a possession at Stevenage.

13 May 43423/468 on 1A69 struck a trespasser in Gasworks tunnel, terminated Kings Cross 81 late.

14 May 43423/468 45 late start on 1N90 after crew returned from rest.

04 Jun 1A65 (43480/484) ran via Dinsdale and Darlington due to points problems at Northallerton. The same set later terminated at Darlington on 1N94 after being involved in a SPAD – the set then ran ECS to HT.

11 Jun Last minute power car swap with 43465 having a WSP fault saw 5A61 39 late off Heaton.

19 Jun 1A65 (43465/468) 45 late Kings Cross after a preceding VTEC service suffered brake issues at Newark.

28 Jun A reverser fault with 43468 caused a 27 late start to 1N92 (43468/484).



EAST MIDLANDS TRAINS

Set NL65 was transferred to East Coast from the 1st March, but continues to employ EMT power cars as supplied by NL on a daily basis.

03 Apr 43076+NL04+43081 worked a full Meridian diagram on the Sheffield route finishing with 1C89 2201 SHF-DBY.

06 Apr After attention by 125 Group at NL, 43000 (41001) was utilised to move four HST trailers around the depot and through the wash plant.

12 Apr With NL65 on exam, NL12 was loaned to East Coast for the upcoming week, with power cars 43045+43064.

22 Apr Serious disruption south of Luton after 1D57 formed 43049+NL06+43059 was involved in a fatality at Hendon, shortly before 17.30. You can imagine the chaos in the rush hour.

28 Apr 1C93 was in trouble from the start as 43054 was silent on the rear from SHF with 43046 doing all the work. It returned as 1F70 to LDS and then NL. 43075 was also in trouble later in the day with blown fire bottles and the set recessed at CW to work 1F63 with 43083 solo power, whilst other sets were stepped up. 43044 ran l/e NL to EP as 0F81 (43075s original allocation would have been 1D81), but the set ran as 5F63 from SHF-LDS before the mistake was realised, whereupon it ran as 5Z81 to EP for the power car swap.

30 Apr 43049 ran solo as 0F81 1105 NL-EP, returning as 0F02 1530 EP-NL with 43075 in tow.

05 May 1C93 a problem again with the set and CAPED SHF-DBY where a 222 started the service.

23 May A blockage between Kettering and Bedford led to a limited EMT service all weekend with very few diagrammed HSTs.

26 May 1C22 got into difficulties north of DBY where it terminated. 43082+NL01+43073 retired to EP for attention.

27 May 43060+NL08+43083 had an air leak at STP whilst preparing for 1D47. 43089+43045 arriving on 1B48 were stepped up, with an eight minute turn around and minimal delay to departure.

10 Jun 43043 was silent on the rear of 1F70, with 43055 doing all the work.

12 Jun 43081+NL03+43045 get stepped up at STP to work the 1558 SHF rather than the booked 1615 NOT. It returned south on the 1829 from SHF.

14 Jun 43052 suffered an uncontrolled wheelspin whilst working on the rear of NL11 with 43044. This caused considerable damage to all four traction motors. It was split from the set at EP. It was several days before the set was rescued for return to service.



Opposite Left: 43484 sits at York whilst working 1A65 1228 SUN—KGX south. 20/06/15 © **Giles Bearder**

Above: Off familiar territory! 43066 sits at Edinburgh Waverley after working 1S22 1500 KGX—EDB as a move to get NL65 to Craigentiny for re-branding into VTEC livery. 20/06/15 © **James Trebinski**

Blasts from the Past



Above: The Prototype HST is shunted into the Cambridge Sidings at Bletchley by a Class 25 26/03/1973 © **Keith Jackson**

Below: For one of the MTU Press Launches 43005 & 43009 head along the down relief working 1230 0912 Paddington - Penzance 2006 © **Graham Lee**

