

Syphon!

The official magazine of the Class 37 Locomotive Group
www.c37lg.co.uk

Issue 148

January - March 2012
£3.00 (free to members)



Type 3 vs. Snowdrift

Behind the scenes at Crown Point

Turning thrash into amps

Around the mainline

class **37**
loco group

Syphon! Magazine

Editor: (editor@c37lg.co.uk)

Mick Sasse
micksasse@googlemail.com

The Class 37 Locomotive Group

Registered as a charity in England, no. 1137787

Correspondence address:

60 Babylon Lane
Anderton
Nr Chorley
Lancs, PR6 9NW
www.c37lg.co.uk

The Committee: (T) denotes registered trustees

Mick Parker (T)	Chairman, Treasurer, Website Manager Email: mick@c37lg.co.uk
Mick Sasse (T)	Vice-chair, BYOT Lottery Co-ordinator, Magazine Editor Email: micksasse@googlemail.com
Mike Millward (T)	Technical Officer Email: michael.millward@virgin.net
Ian Simpson (T)	Sales & Fundraising Officer and Archivist Email: ian9006@hotmail.co.uk
Martin Ranson	Membership Secretary Email: members@c37lg.co.uk
Philip Cole Wallace	Officer Without Portfolio, Railtour Bookings Co-ordinator Email: colewallace@btinternet.com
Steve Potter	Officer Without Portfolio Email: pottersrock@btinternet.com

If you supply an email address when joining the Group, you will be invited to join the Members' Forum. Feel free to contact the Committee - and other members! - via the forum. We recommend joining, as forum members receive news first. There's also a separate forum for general discussion. Just e-mail Mick Parker with your name, address and membership number. Mick P also deals with general enquiries and coordinates our website (including the Fleet History). Philip handles members' Spitfire Railtours bookings. Mick Sasse is your contact for any queries about *Syphon!* and the *Buy Your Own Tractor* lottery.

But the committee members are all there for you - don't hesitate to contact any one of us!



FRONT COVER: 37069 + 37510 power across the junction for the East Suffolk line at Oulton Broad North with the 3W96 1228 Lowestoft to Norwich RHTT. The giant wind turbine of Lowestoft harbour can just be seen in the exhaust haze!
Steve Potter

Contents

- Page 4: EDITORIAL AND NEWS**
Good grief, booked 37s on passenger work again. It's just not right...
- Page 5: LOCO UPDATE**
Not so many trains hauled as the season winds down - but plenty of progress on the loco herself, and even that field divert is a little less odd these days!
- Page 6: TRAFFIC UPDATE**
The usual scores on the doors, and an annual total for 2011.
- Page 7: MMM (MARTIN'S MEMBERSHIP MUSINGS) and FUNDRAISING UPDATE**
Your regular update on the joiners, changers, renewers - let's keep those renumberings rolling in!
- Page 8-9: BATTERING THEM INTO LIFE...**
Our man on the inside at Crown Point - it's an awful lot easier when you can pay someone to repair your tractor!
- Page 10-13: HOW IT WORKS - PART 4: POWER GENERATION**
This time *Mick Parker* tackles the ins and outs of getting from a revolving crankshaft to electric current you can feed to traction motors.
- Page 16-21: FIREMAN FRED REMEMBERS - PART 4: SNOW - THE LOSING BATTLE**
A decidedly wintry feel to Fred's latest instalment of reminiscences of working on the class 37, this time facing some serious winter conditions in the North-East - we really hope the chips in Berwick were nice!
- Page 22: MODEL BEHAVIOUR**
This time *Gary Brzeczeczek* shares his remarkably impressive efforts to transform Lima's old class 37 into our own 37003 in her present outfit
- Page 23-25: SYPHON PICTORIAL: OUT AND ABOUT**
Your quarterly update on Class 37 action around the mainline, with much spraying in evidence this time!
- Page 26: B.Y.O.T. UPDATE and DIARY**
Yes, it's now nearly £50 first prize every month, no word of a lie! And now the D6700 can be a winner, just like the 37! The tour and gala dates for 2012 are already starting to pan out - time to start getting the moves planned!
- Page 27: SALES STAND**
With the 37003 models going nicely, you can also now be the envy of the platform end with a C37LG notebook! Or have your own favourite image magnetised to your fridge... or even a night in with an AC Electric!

CONTRIBUTORS TO THIS ISSUE (articles and photographs):

This time, thanks are due again to a host of people who've supplied text or photographs: **Neil Baker, Gary Brzeczeczek, Martyn Fordham, Michael Gibson, Steve Jones, Mike Millward, Mick Parker, Steve Pizzey, Steve Potter, Michael Ratledge, Martin Ranson, Gordon Stirling, Miceál Tyre, Fred Wagstaff and Chris Watford.**

Syphon! is completely dependent on your ongoing support. There's now a reasonably steady stream of photographs of mainline action and developments in preservation - please keep them coming! But we'd also love to see more written articles too from our members about any aspect of the class 37. They don't have to be perfectly written: that's the editors' job! If you've any ideas, just let Mick Sasse know and let your creative juices flow freely!

Editorial & News

Dear members and supporters,

Writing these lines in the second week of the new year (oddly enough while sitting on Stockport station!), it's truly remarkable that as of Monday gone, once again there is a regular, booked passenger working for class 37/4 traction on the national railway. I'm referring, of course, to the Cumbrian Coast line, where there is now an additional train from Carlisle around to Sellafield in the early morning, continuing on to Barrow-in-Furness, with a return working from Sellafield (NB not Barrow at present!) in the afternoon - to coincident with the shift pattern at BNFL Sellafield. In case you haven't come across them yet, the train is the 06:08 from Carlisle, and the 16:48 from Sellafield - but be careful, it's strictly SX! The working was added into the timetable in an attempt to woo BNFL employees out of cars for their daily commute - but it's open to normal travellers too (and those anything but normal!).

The fact that it is loco-hauled appears to be due to a combination of the desperate national shortage of DMUs (after all, only the South deserves new trains...!) - plus of course the fact that BNFL themselves have ready access to the necessary resources in the form of suitable rolling stock and, to use that hideously unfashionable term, mixed-traffic locomotives.

Now I'd like to think that I'm reasonably well-informed about what goes on around Europe's railways, and I know there are one or two vintage electrics still kicking around, but I'm struggling to think of many examples of a diesel loco in its 52nd year of service and still having booked passenger work... suggestions gratefully received, but yet again another testament to the brilliance of the design.

And yes, I will be "working from home" some weekday very soon to get this move in!

Anyway, closer to home now, and as I write this the committee are just finalising our latest shopping list after an excursion to examine what's available in the spare parts department at our favourite scrap metal merchant's place, and also finalising our plans to order the new automatic voltage regulator (AVR) we've talked about previously in this magazine. So once again it's looking as though we're going to be spending a fair bit of money - so once again it's time both to thank all of you who keep on supporting us with one-off or regular donations, shop purchases or every month through BYOT, but also to ask you please to redouble your efforts, to make sure that we don't miss out on the ever-diminishing supply of high-quality spares for 37003 for want of the readies when they're needed. Because so often, when the right part becomes available, we need to be ready to jump before someone else does!

Meanwhile, as things stand we're looking forward to what we hope will be a year of bringing our loco up to genuine top condition - you can certainly expect to see a repaint this year, but more importantly you won't see (unless you get stuck in to help us!) our work behind the scenes in sorting out the ongoing niggles, such as that quirky field divert, and making sure she's a loco we're happy to take around touring the country's heritage lines - and in the long term back onto the Big Railway! As you'll see over the page, we managed a respectable mileage over the year - but we're certainly hoping to top that in 2012.

Finally, I'm very pleased indeed to tell you that my mildly pathetic plea for assistance last month did not fall on deaf ears... A very pleasing number of people came forward (I knew I could rely on you!), and as a result I'm delighted to announce that I now have a co-editor sitting alongside me (not literally - nobody could be expected to tolerate that!), in the shape of Míceál Tyre. So no doubt you'll come to notice a few subtle changes over coming issues, especially as Míceál has a bit of a design background, so I'm confident he'll be using his skills to beautify *Syphon!* even further!

Sincere thanks to you all for your support,
Mick Sasse micksasse@googlemail.com

Loco Update - Winter 2011-12

Text and pictures by Mike Millward, Steve Potter and Mick Sasse

While our loco has been less busy hauling trains since the last Update, the team have been far from idle at Dereham. The end of October saw a session catching up on lots of little jobs, including attacking the sticking cab doors, which we're pleased to report now not only close but also open again without let or hindrance!

After that, back to the long-standing issue of the field divert / fuel supply issue. Chris and Mike spent some time screwing gauges into various orifices (err, on the loco!) and found low pressure on the fuel rails, but 45psi at the pump. Hmm... Eventually it turned out to be the main shut-off cock, that had at some stage been crammed shut but didn't shut off fuel completely; once this was open we had pressure at the fuel rails of 25psi, the engine stopped hunting and flat out we had a very satisfactory 890-900rpm. It appears that someone had shut the cock, but because the emergency fuel tank acted as an unpressurised reservoir she'd work fine before 1st divert but with no pressure didn't have enough fuel to rev the engine up. The emergency tank is there to act as a 'clear the line' with 30 miles of fuel available. Of course, with the MNR being 11 miles and locos idling at each end, the tank refilled from the fuel



James Powley sorts that annoying door out!

37003 makes herself useful to the P-way department on 26 November - and provides a good opportunity for a test-run!



pump each time; with 37003's previous home railways having being short and with lower linespeeds, the problem never surfaced.

26 November saw the opportunity to test the results of this work: an early start saw 37003 prepped and started, then nailed on to the Works Train (MLV, crane, crane runner, 2 x flat wagons). Off we toddled to Thuxton loop via a couple of equipment drops. We left the train at Thuxton and then had to go to Crownthorpe Bridge to change a fishplate on a dropped rail joint; once that was done we went back to Thuxton and did some more shunting. Then Mark Hallet and Mike went for a trip down the line to Wymondham to do

tests on the 1st field divert. On Danemoor Bank, we put some pressure on the straight air brakes to simulate the rolling resistance of a train, and Mark gave 37003 full power whilst Mike monitored the load regulator. At the first divert, the load reg ran back, and the engine speed picked up again; it is still a little slow in reacting, but at least it now works properly. A couple more checks are needed to confirm, but it certainly looks as if we are heading in the right direction. Anyway, chips at Wymondham, then back to shuffle the works train again, a couple of circuits of the loop at Thuxton and back to Dereham picking up cut logs en route - and then beddy-byes for 37003 at about 16:30 as the sun gave up. Mike also took the chance to go over the engine with the laser thermometer and also check engine revs with the tachometer; nothing untoward anywhere. No. 2 end controller works a lot better now we've rebuilt it and shuts down immediately when asked. But a new job on the list will be new droplight window seals - b****r that wind was cold!

7 December saw a different venue, and a trip to EMR's scrapyard at Kingsbury yielded a major haul of spares for our stock, including exhausters, traction motor blowers, and a radiator fan drive - plus a host of smaller items like vacuum pipes. We even got ourselves a new and rather straighter door for no. 1 end secondman's side! We're hoping that further

parts will become available soon. Meanwhile, we're expecting to get our order in shortly for the electronic Automatic Voltage Regulator (AVR) we've mentioned previously - so please keep all those generous donations rolling in!

The results of the work on 37003 were put to the test when she was called on to work the MNR's "Mince Pie Specials" on New Year's Day and the following day, top & tail with 47580. '003 was leading engine out of Wymondham end each trip. She ran faultlessly both days - apart from the divert problem, which is better, but does still seem to be at large. There was a surprise in store too, when 47596 was added to the last trip to test it; this meant that on the way back from Wymondham we had a 5-coach train and two dead 47s to deal with, some 450+ tonnes on the bar! A spirited run was put in by Mr Hallett, and she dealt with the load no problem. As the divert comes in there appears to be an amount of clag emitted, which we suspect may be an issue with the incorrect amount of fuel being delivered by the rack. So all in all, while we're making progress and have a sound loco, there is still more to do here - cleaning out the intercoolers is now on the list... Oh, and a recurrent fault with an over-sensitive DSD (possibly the pedal itself) did strike once again too!

Finally, for the first working party of 2012, Gary B and Steve P gave some attention to the state of No. 1 end cab, now that we have a reasonably running locomotive. This at present is very tatty and in need of work. So the day was spent scraping, sanding, scrubbing, Hoovering(!) and generally preparing the cab for an overhaul - including a repaint. Particularly bad areas around the window seals (where they have at some point been leaking) were very stubborn and full of surface rust. All of the rotten areas have now been prepared and treated with red oxide paint in readiness for our next visit to coat it in primer (*left*). So not the most glamorous or obvious work - but just as important as anything as we enter the new running season!



37003 Traffic Update - 1 October to 31 December 2011

25 September proved to be the last day of 2011 our loco saw passenger duties. However, as reported above, 37003 has not been idle, despite having received further attention from our volunteer team: test moves aside, she saw use on 26 November, making herself useful to the MNR's engineers. So the only passenger work to report this issue is:

1 January 2012

11:45 Wymondham Abbey - Dereham (T&T 47580)

14:45 Wymondham Abbey - Dereham (T&T 47580)

2 January 2012

11:45 Wymondham Abbey - Dereham (T&T 47580)

14:45 Wymondham Abbey - Dereham (T&T 47580)

Total mileage in revenue-earning service this quarter: 42.44 miles. (Number of pies not recorded)

Total mileage for 2011 in passenger service: 458.22 (apparently!).



"Mince pie staff only... and 37 cranks" 37003 helps deliver the seasonal spirit on 2 January 2012.

Mmm (Martin's Membership Musings)

Happy New Year to you all! Some of you may be wondering about the length of time your renewals have taken towards the end of the last quarter. Well, the inglorious hard drive muncher moved south following its strike at the vice-chair's abode last edition, and into Coventry. We lost pretty much everything, including all the essential membership tools, but I am pleased to say normal service has nearly resumed, although this is unlikely to happen given the upgrade to Windows 7 and Office 2010 on our new machine, which I cannot fathom out at all! Anyway, back to business and the all-important membership scores. First I would like to welcome the following new members to the group:

David Rutter (37322) and Philip Feakin (37323)

Your support is really appreciated, and I hope you enjoy your time with us. And thanks to those of you that have renewed (almost a quarter of the membership!):

Michael Rouse (37003), Nick Chadha (37025), James McPherson (37067), Emyr Walters (37081), Barry Wetherell (37098), Derek Lott (37100), Mike Millward (37115), Ray Manka (37127), Ian Dobson (37132), Roger Parr (37133), Michael Driscoll (37150), Steve Flowerday (37174), Richard Davis (37193), Mark Clamp (37208), David Carley (37233), Gordon Brown (37261), Jan Niemczyk (37265), Colin Brunt (37266), Alan Henry (37290), Andrew Hadcroft (37294), Chris Watford (37416), John Gothard (37610), Graham Latimer (37710), and Les Emery (37797)

- with a special thanks to the growing number of you who have included donations in your returns, and also to James McPherson and Jan Niemczyk who have stepped up to Gold membership this year. I hope you like your sweatshirts? If anyone is thinking of taking Gold membership but doesn't fancy a sweatshirt, we are able to offer any other item of clothing in lieu of it. Just make a note on your renewal.

For those of you that have received renewals with this issue, I look forward to processing them (quickly!) in the near future.

The renumbering scheme has now reached an expected steady tick-over, with the only switcher this month being Neil Ruffles taking on the clag monster that is 37906. A new list has been issued to the Yahoo members' list to coincide with the release of this magazine. For the benefit of the newcomers, a £5 donation to the preservation fund can secure your favourite loco from that list as your membership number. All enquiries and further details, especially for anyone not on the Yahoo list, to me at: members@c37lg.co.uk.

Cheers for now and I look forward to catching up with as many of you as possible in 2012.

Martin

Fundraising update

With the season of galas and railtours over for another year, things have got quieter on the fundraising front - other than of course BYOT every month and the proceeds of online sales. But see p. 27 for details of our plans to make 2012 our busiest year yet on the sales stand!

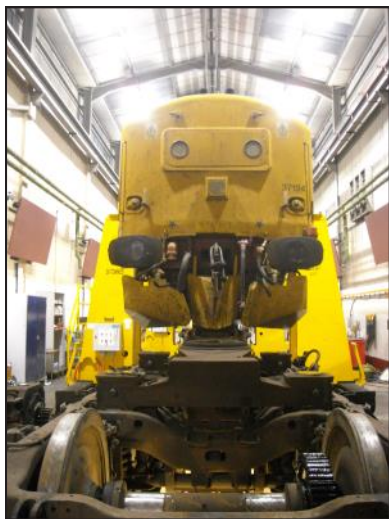
Meanwhile, you might remember from last issue that we were auctioning off the truly stunning detailed and weathered Bachmann 37003 created by George Dent. We're very pleased to say that the successful bid was a very satisfactory £222 from Andrew Maybourn of Sittingbourne - thanks very much, Andy!

More new ideas for fundraising coming soon: watch this space!



Battering them into life...

As luck would have it, our Technical Officer, Mike Millward, works in Norwich's Crown Point depot, so was able (legitimately!) to grab these tantalising behind-the-scenes glimpses...



Among a wide variety of work, Crown Point carries out servicing and running repairs to DRS class 37s in the area for the autumn RHTT workings. Firstly (*above*), split-box survivor 37087 makes a quick pit-stop for routine maintenance on 28 October 2011. This being just a quick visit, the railhead treatment train itself is still coupled and can be seen just behind the loco.

Things were a little more serious for 37194. This loco failed while out on the East Anglian RHTT circuit, with a seized traction motor, which meant that it had to be dragged to NC - very carefully! - on wheel-skates. A traction motor change was then carried out, and Mike's imposing image (*left*) shows this in progress with the loco lifted onto heavy-duty jacks, and the bogie rolled out for the "offending" motor to be swapped. The loco was back in service by late November, and has since then been busying itself on the usual mix of DRS duties.



Another view of 37194 undergoing a traction motor exchange at Norwich Crown Point in November 2011. The generous layer of filth covering the loco attests to its intensive use prior to failure on RHTT duties - you have to sympathise with the poor guys who had to work on a loco in such a state... "Now wash your hands"!

Meanwhile, in the preservation world, returning a loco to traffic depends on manual labour, private fund-raising, and thousands of hours of sheer effort.



Michael Gibson caught up on 24 September 2011 with a preserved '37 which has, so far, seen relatively little limelight: 37207, seen at Marsh Mills on the Plym Valley Railway, is under long-term restoration. Withdrawn back in 1999 after last working a train in 1996, work is now steadily proceeding on the privately-owned loco, with the bodywork now largely complete. We wish the owners the best of luck with their ongoing work and look forward to '207 being a runner again before long.

How It Works - Part 4: Power Generation

Issue 146 gave an explanation of how the diesel engine works, but as we all know, the Class 37 is a diesel-electric locomotive. So in this issue Mick Parker gives a basic description of the 'electric' side of the locomotive.

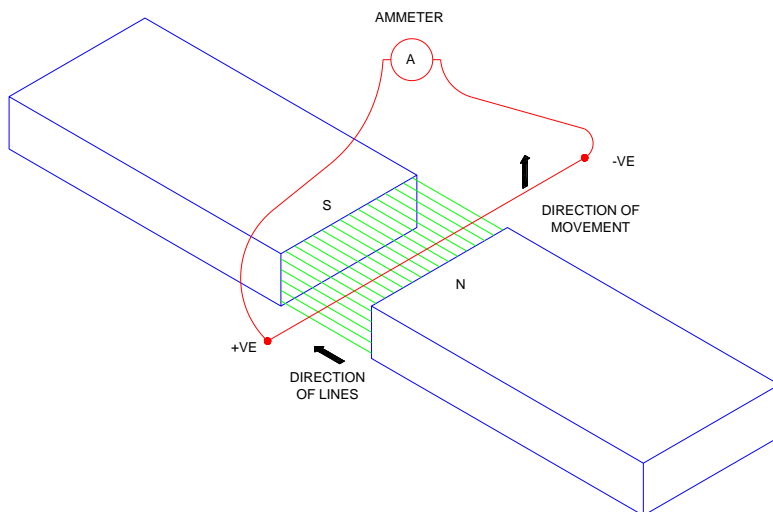
In a diesel-electric locomotive the engine drives a D.C. (Direct Current) generator. The Main generator provides the energy required to operate the 6 traction motors which drive the road wheels via reduction gears. There is also a series of windings in the generator field which enables it to run as a motor for starting the engine on current supplied by the battery.

The auxiliary generator is overhung from the main generator, its armature being an extension of the main generator shaft. The output voltage is controlled at 110 Volts by a carbon-pile voltage regulator. The auxiliary generator supplies the main generator's separately excited field (see below for an explanation of excitation), the auxiliary services of the locomotive and battery charging facilities.

Electro-Magnetic Generation

Electricity in a locomotive is generated by the means of electro-magnetism by a generator. To explain the construction of generator alone would not explain why it produces electricity when rotated by a suitable source of power. It is therefore necessary to study the principles from which all generators are derived.

Figure 1 - Fleming's 'Right-Hand Rule'



When two bar magnets are brought close together, lines of 'magnetic flux' are produced. If a wire conductor is moved rapidly through these lines of flux, a weak electrical current flows through the wire, as can be seen on an Ammeter connected to the conductor (Fig. 1). If the movement of the conductor is stopped in the magnetic flux, no current is generated and the ammeter reads zero. Fig. 1 shows the conductor moving upwards through the flux, and also shows that the current flows from the left-hand end of the wire through the ammeter and returns to the right-hand end. The left-hand end of the conductor is therefore a

'positive' (+ve) terminal and the right-hand end is a 'negative' (-ve) terminal. If the direction of the wire is reversed, i.e. downwards through the flux, the direction of the current is reversed. The direction of the current flowing along a wire may be found using Fleming's 'right-hand rule'. It is on this fact that the basic principle of generator construction has been developed.

DC Generators

Current can only be generated in a conductor when it is actually cutting through a magnetic field. A generator therefore consists of a set of electro-magnets for the purpose of producing magnetic field systems, and a set of conductors which are mechanically driven through the field system by the locomotive's engine.

Figure 2b - Armature coil in vertical position

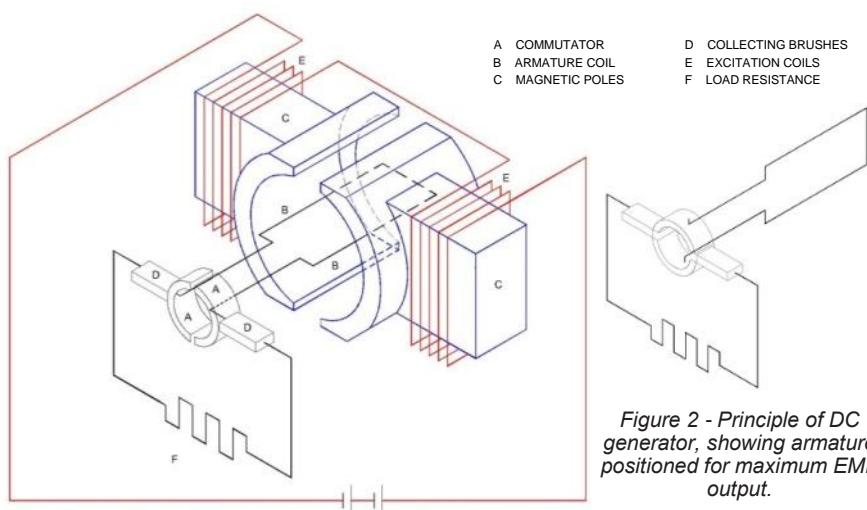


Figure 2 - Principle of DC generator, showing armature positioned for maximum EMF output.

Producing electricity by causing the conductors to reciprocate (i.e. move backwards and forwards) in the magnetic field is unsatisfactory for practical applications, so a system of rotating the conductors is used. This presents a new problem of collecting the current produced, and therefore a commutator and collecting bushes are used (Fig. 2). The diagram shows the essentials of a direct current (D.C.) generator in diagrammatical form. The coil **B** forms the armature of the generator, which is driven by the engine, and the ends of the armature coil are connected to the commutator **A**.

In the example in Fig. 2 the armature is being driven clockwise from the observed end. The left-hand pole has south polarity and the right-hand pole has north polarity. The armature loop therefore cuts the lines of force entering the south pole by passing upwards through them. As shown by the 'right-hand rule', the current generated in the armature loop as it passes the south pole will flow towards the commutator segment and be collected by the brush as positive electricity.

Conversely, the armature cuts the lines of force leaving the north pole by passing in a downward direction through them. The 'right-hand rule' will also show that current will flow from the collecting brush through the commutator segment and to the armature. In the diagram the current is allowed to flow through a resistance.

The commutator segment whose section of the armature coil is passing in the same direction of current flow is always obtained from a given bush. This is known as direct current.

In the diagram shown in Fig. 2b the current will cease to flow during the period in which the armature coil is turning through its vertical positions. The current flow is at its greatest when the armature coil is in its two horizontal positions. During a complete revolution, therefore, the current would rise to a maximum, twice, and fall to zero, twice, without altering direction. In practice this rising and falling of the current strength cannot be tolerated, as it is essential that a perfectly even flow of current from the generator must be maintained.

The simple diagram in Fig. 2 shows only a single-loop armature coil, connected to two commutator segments. In practice generators, especially those used in diesel-electric locomotives, have several hundred armature coils wound round a laminated iron core, sometimes referred to as a 'spider'. Each coil has a commutator segment attached to both of its ends. Instead of being semi-circular, as shown in the diagram (A), the commutator segments may have a width of only in. (less than 5mm) on their surface.

When so many armature coils are used, there is always one which is passing through the magnetic field at its strongest place opposite each north and south magnetic pole, and the brushes can therefore be collecting the maximum current throughout every revolution.

Diesel-electric locomotives may have generators with up to ten poles instead of a single north and south pole. For each pair of poles used a corresponding set of brushes must be arranged on either side of the commutator to collect the current generated, as in Fig. 2.

Armature Windings

Figure 3 shows a simple armature in which fourteen commutator segments are used. For the sake of simplicity two complete coils are shown wound on the 'spider' by a method known as 'lap' winding. The system depicted forms the basis of the design of traction generators, in

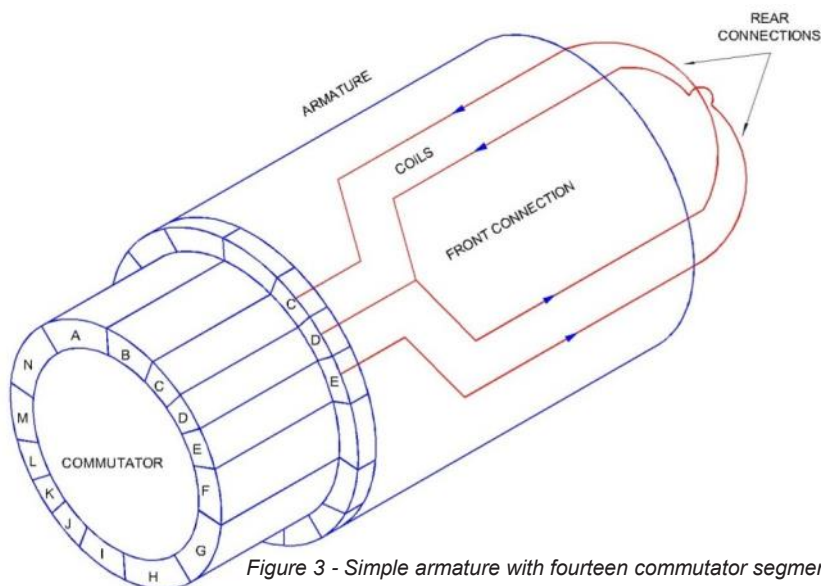


Figure 3 - Simple armature with fourteen commutator segments

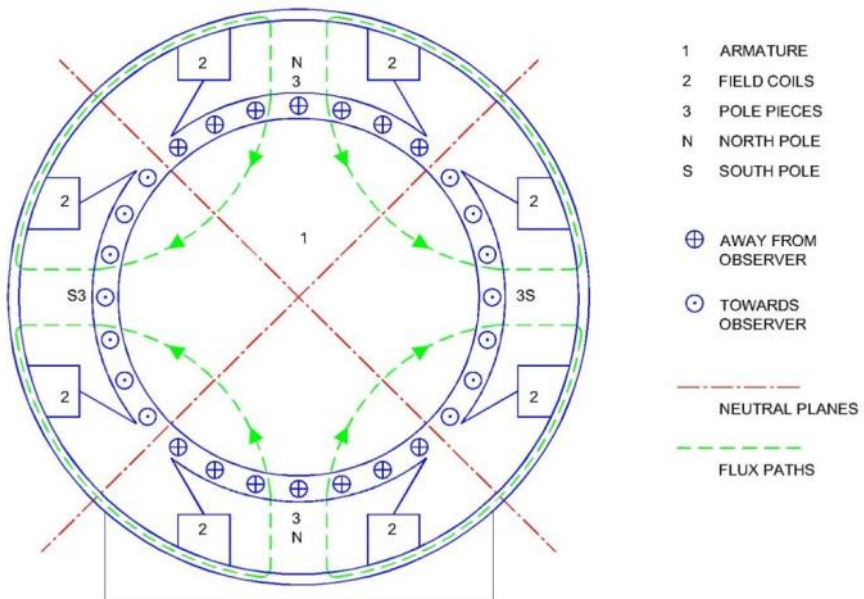
which several hundreds of such windings may be used. In the illustration the generator armature has fourteen commutator segments, and there consequently twenty-eight

conductors to pass beneath the magnetic pole-pieces.

Assuming that the generator has four poles, then there will be seven conductors per pole, i.e. twenty-eight divided by four. A cross-section of the system is depicted in Fig. 4. This shows the flow of current away from the observer by the sign \oplus and towards the observer by the \otimes sign, similar to looking at a dart. The field coils are wound in such a way that like poles are made to come opposite each other.

Figure 4 - Current flows and magnetic flux paths in a four-pole generator

The process of magnetising the pole-pieces of a generator is called 'excitation', and the current which flows in the field coils is called 'excitation current'. Some diesel-electric



locomotives have a special generator for producing the excitation current, generally known as the 'exciter'. It is however usual to obtain the excitation current from a generator which performs a dual function of being an exciter and battery-charger in addition to supplying current for purposes on the locomotive other than driving the traction motors.

In the Class 37, all these roles are fulfilled by the auxiliary generator. The auxiliary generator is smaller than the main generator, and when situated on the end of the main generator shaft. The auxiliary generator is similar in design to the main generator. The output voltage of the auxiliary generator is always maintained at a constant value.

Next issue Mick will take us through the confusing topics of load regulation, field diverts and the like: how the current produced by the generator is adjusted to make sure that the engine, generator and traction motors are always working in the most efficient way possible.

Syphon!

What, a “going-away” shot and then a black-and-white one?! *Steve Potter*’s choice of monochrome for this view of our own loco at Wymondham Abbey on 2 January 2012 really makes the best of the low, winter lighting and Steve’s low camera angle to produce a striking image of an attractive, but familiar, location - so again no apologies for breaking the rules!





Fireman Fred Remembers...

Part 4: Snow: the losing battle - fought and won!

This issue, a truly wintry account of man versus the elements, as retired North-Eastern railwayman Fred Wagstaff once again shares his fascinating reminiscences of working with the (almost!) ever-reliable English Electric Type 3 - reminding us just how much dedication it can take to get trains moving when nature has other ideas. Over to Fred somewhere in a snow-drift in the northerly climes of the East Coast mainline...

One dark winter's morning, I climbed out of bed and peered through the bedroom curtains, and saw the snow piled up against the houses across the street, and a thick layer dumped waist-high as far as the eye could see. There were snowdrifts in every direction and I was tempted to dive back under the bedcovers again, but I had to sign on for work at 06:45hrs, and the thought of losing ten hours' wages quickly changed my mind.

I went downstairs and put the kettle on, poked the fire to life, then had a bowl of porridge and took our lass her morning cuppa. I gave her peck on the cheek and said in my best Alpha-male voice, rather after the style of Captain Oates wandering off into the icy Antarctic wilderness: "I may be gone for quite some time, my dear." "Daft bugger!" she said.

I set off for Cambois Depot along the beach, since most of the snow had been cleared by an ebb tide, and so I made it to the Depot in good time. On arrival I pretended to be on the point of exhaustion, having battled my way through waist-high drifts - and, in case no one believed me, I pushed a few handfuls of snow into the pockets of my oilskin coat, and I would've got away with it, but Alfie spotted the sand on my boots.

Following the heavy overnight snow, most rail traffic in the Northeast had ground to a halt - the mainline was stopped as far south as Darlington and nothing moving as far as Edinburgh. It looked as if the shift was going to be a doddle, so I went into the mess room for a quick brew and found nine men sitting there; most of whom had long since finished their shift and were waiting for the dawn to break before trying to get home. I thought I'd cheer them up by telling them that all air-sea rescue helicopters had been put on standby - "They're planning to rescue us at first light," I said in jest, "But because the forecast is so bad there's little hope of the choppers getting off the ground - even the seagulls are walking!"

Needless to say, I got chased out and sought refuge with the running foreman, who asked me to start the locos on the depot and leave them running for a while, just to warm them through and keep the batteries in good nick. An hour later, the locos were throbbing away and I returned to the office, where the Area Manager's assistant was giving a grandstanding speech on how he was going to keep our stretch of the railway open to traffic. It was imperative, he said, and as the sole person in charge, he proposed to run the snowplough between Berwick and Benton.

When it was pointed out to him that there wasn't a snowplough at Cambois, he replied: "All the locos on the depot are fitted with beam ploughs. We will use one of them."

At this point, I started to get worried... and rightly so: the snow-clearing job he had in mind was to be double-manned, and he had selected John R as the Driver and me as secondman. John was not best pleased and insisted on taking two locos in multiple, just in case.

The Running Foreman chipped in sarcastically: "Why not take three?" John stood defiantly to his feet; in the normal way he enjoyed a bit of banter, but clearing snow in a blizzard is no joking matter - and John, forever the diplomat, told him bluntly: "You can go bollocks! I'll take six if I have to!"

So John and I collected our gear and tied the two Type 3s together at the standage point. We saddled up, checked the locos, tested the brake, powered up at both ends, full tanks, and waited for the 'Tallyho!' Then we waited and waited, and waited... until, ten minutes later, John got so fed up he climbed down, muttering profanities, then headed off through the snow



Fred's task would doubtless have been much easier - and less risky - if he had had independent snow ploughs like these when he and his team were sent out to clear the ECML north to Berwick. Here 37113 *Radio Highland* and an unidentified sister (possibly 37152?) rest at Aviemore in 1990. Fred comments: *"This is the proper tool for the job, the only drawback being that it deposits half the cleared snow on the facing road - all part of the fun and frolics of ploughing! There is a tale of a young station porter clearing a 120 yd-long platform of snow, and at the very last shovelful the plough came along and buried him and the platform...not a very happy lad!"*

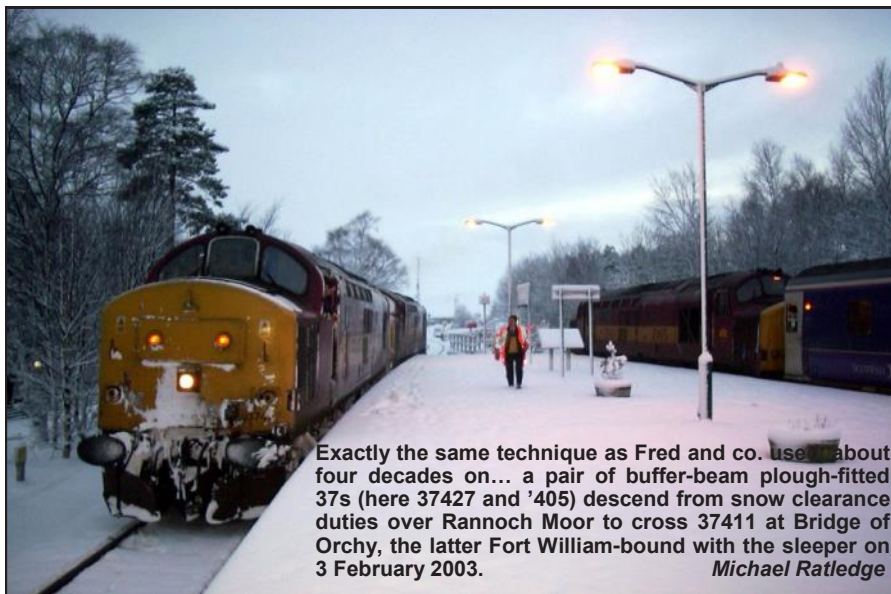
Gordon Stirling

in the direction of the office block. He returned ten minutes later and shouted - "Howay Waggy lad, back to the block."

I thought the manager might have had a change of heart, but no - he had arranged for a gang of platelayers to join us to clean the points and dig the signalling gear out. Both John and I thought the manager's optimism was very commendable, but we weren't sure how he was going to persuade any sane-minded platelayer to work in these conditions? Amazingly, he did. And so with the three plucky platelayers in the back cab and the manager joining us at the front, we set off at 11:00 and crawled the seven miles to Morpeth at a snail's pace, arriving there at 13:30 - a whole 2½ hours later! I was of the opinion that our journey had to be something of a record; that we should get some sort of recognition for our efforts. "If Mallard is the fastest," I said, "Then we are surely the slowest!" I just got told to shut my trap.

On arrival at Morpeth, we were expecting to pick up a fourth platelayer called Mick Murphy, but he'd informed Control that he was snowed in and couldn't get out of the house. He was truly scuppered, he said, but he didn't want anyone to worry about him because he had three crates of Brown Ale and the freezer was choc-a-bloc with grub, which probably made a lot of sense... to him, selfish b*****d!

Anyway, after getting into the platform, the manager jumped down into the snow, wearing just



his normal everyday suit and highly polished shoes, and made a start on supervising all the point clearing. Then after the task was completed he climbed back into the cab - "Right chaps," he announced in a triumphant fashion, "We are right away for Berwick." John looked at him questioningly, "Shouldn't we wait for the signal first?" - "Why yes, of course," he said in afterthought, "I'll inform the signalman on the phone at once."

He jumped down and was about to pick up the signal phone, when the signalman gave a green flag from the box. John immediately acknowledged with a 'hoot' on the horn, which, in all fairness to John, was probably just a lapse on his part, but blasting a diesel locomotive horn when the manager was standing in such close proximity was not a good idea! Sure enough, the shocked manager jumped out of his skin! I saw his legs buckle under him and he disappeared beneath a mound of snow shovelled there by the platelayers. He got back to his feet and brushed himself down, then climbed nonchalantly back into the cab, poking more snow out of his lugholes.

As we set off, I had a chat with the platelayers in the rear cab, then returned to the front, where a raging argument was going on between John and the manager; as soon as I entered the cab, the atmosphere in there was as ice-cold as the snow outside the window, which by now was piling up on the nose end. The manager hadn't a clue of our whereabouts - "There is two foot of snow obscuring my view," he said prissily, and ordered John to slow down.

John steadfastly refused, arguing that if he did slow down - and we hit a drift - then we might not get out, which was fair enough. I knew for a fact that when the Rothbury goods was steam-hauled, John had been marooned up the Wannie line for more than twelve hours, so I could understand his point of view. But the manager kept going on and on about how he didn't know where he was, until John's patience finally snapped - "Look, it doesn't friggin' matter if you know where we are or not! I'm the driver, and its me that's to know where we are... not you!"

The manager shook his head stubbornly - "But can you not open the window and look out?" "No, you can't!" John shot back, "If you shove your head out the window, you'll snap your

friggin neck!" To my horror, the manager began to pull the side window down, but before he could stick his head out I grabbed his arm and held him back, and just in the nick of time, as it happens - a dollop of snow about the size of a wheelbarrow hit the window frame and burst all over the cab. "Shut that friggin' window, you dopey sod!" John hollered at him. The stunned manager gaped in disbelief. I don't suppose anyone had ever spoken to him like that before, but it certainly did the trick; he pouted his lips in a sulky silence and slumped in the chair. "Wanna cuppetee?" I asked. "No thank you," he replied moodily, but I made him one in any case - and he took it; the poor bugger was shivering with the cold, his suit was soaking wet up to his crutch; he looked so forlorn that I gave him my oilskin to put on.

Meanwhile John settled down to concentrate on the job at hand. Driving mainly on the Auto Warning System and the curvature of the road, we were snorting along at about 30mph and approaching Lucker when the grey sky suddenly closed in around us followed by a flurry of snowflakes, and then it began to blow a blizzard. It seemed as if a giant hand was holding us back. John began cussing, then opened the controller till we were at maximum revs, but our speed was still falling rapidly.

I was about to ask him what the problem was, when we plunged into a mountainous snowdrift and within a few yards we'd lost all daylight in the cab, snow began sweeping above the doors and windows; the loco was straining to keep going. "Flamin Nora," I said to John - "It'll be over the roof at this rate, 'ja think we can get throo?"

"Like a scene from a James Bond movie..."
Even when not buried in a 10-foot drift, independent snowploughs have a slightly sinister air! Here Neil Baker captures an unidentified 37 passing Cresswell while testing Shirebrook's two ploughs during the winter of 1985/86. When used "in anger" a pair of '37s was (and is) normally preferred.



John folded his arms, sat back and shot the manager a 'told-you-so' look - "It's up to the engines now; if we get stuck in this lot, it's four miles to the nearest village."

Then the AWS horn sounded, indicating that we were on a preliminary caution and could expect the next but one signal to be on. "That's all we need!" John moaned, and we both watched the speedometer dropping to 15mph. But even at a crawl, we still managed to punch a big hole through the drift. Then magically, the bell rang on the AWS, which signalled a clear road, and we burst out of the drift into daylight and began accelerating like the clappers towards Belford Cabin, where the snow was a little over two feet deep. A couple of months later, the Belford signalman told me that it was like watching a scene from a James Bond movie. He could see our exhausts blasting above the wall of snow, black and roaring, getting closer and closer, then we burst into view, with the snow falling off the roofs of both locos. He said he wished he'd had his camera, I told him I'd have settled for a mug of Bovril!

After Belford, the drifting snow had blown off the track into the fields and so we made better time to Berwick and crept into the platform at 17:10. The manager promptly jumped down and began dishing out orders to the platelayers, telling them which points to clean out (as if they needed telling) while I went in search of the Station Master for some fish 'n' chip money. "How much do you think you'll need" he asked. "About twenty quid," I replied. "TWENTY QUID!" he bawled, "What you going to get with twenty quid?" "Fish and chips for the nine of us," I said innocently.

He coughed up the twenty and, with the dusk closing in, I trudged up the hill to the chippy and bought lovely haddock and chips six times, shoved the change in my pocket (figuring that it would buy John and me a pint or two at the BRSA Club later on) and then arrived back at the station just in time to hear the manager declaring that we were ready for the return trip. I handed out the plateys' grub in the rear cab and then jumped in the front, gave John his rations, and placed the manager's on the secondman's seat. John would have me drive going back, so I sat in the driving seat and got stuck into my haddock.

Seconds later, a jubilant manager leaped into the cab, doing a fair impression of a swashbuckling Errol Flynn, and plonked himself into the secondman's seat. "Oooh, haddock and chips," he shrilled, "What a lovely smell!" "Yup!" I replied, "But you've just sat on yours; so it looks like you'll be eating flatfish!"

As John started laughing, I swear even the Manager let slip a telltale grin...

After finishing our bite to eat, the night quickly closed in and it became markedly colder; the crystallized snow was a sure sign that the temperature had fallen to below freezing. I set off across the Border Bridge very slowly as I didn't want to dump a pile of frozen snow on anybody walking their dog down below. The ploughs were scraping it up with a clattering sound and shoving it inside the parapet of the bridge, but as soon as we cleared the opposite bank, I opened him up a bit and the snow was flying away from the ploughs in fine style.

Soon we were approaching the crossing keeper's house at Spittle, which stood right next to the line, so I slowed to a pedestrian pace to avoid breaking any windows, and then we were away again. It was a lovely clear night, without a cloud in the sky and in all directions the countryside looked like a Christmas card beneath the glow of the big moon. The cab heaters were quite good at this end, and the interior was nice and warm, its cosy ambience having already lulled the manager into the land of nod in the secondman's seat. Every now and then a big slab of frozen snow went clattering over the cab roof, and he'd wake up with a grunt before dropping off to sleep again.

However, the icy conditions outside looked dire, but the screen remained clear, and I could see a long way ahead, with the greens shining like emeralds in the silvery surroundings. But as we passed Smeafield, the snow became much deeper and the wipers were having a job clearing the screen, and it was at this point that John and I began to discuss the best way of tackling the big drift between Belford and Lucker. In John's view, the only way to get through was to ram it as we did before: "When you get on the straight past Crag Mill, just get him up to around fifty. We've already made a hole in that pile, so we should get through okay."

I felt uneasy about this, but at the same time John knew what he was at... and so, on passing Crag Mill I gradually increased the speed until we were at forty, then forty-five. Then, as we passed the box at Belford I notched the throttle up to fifty. Ahead, the snowdrift looked suspiciously larger than I remembered it, or it could have been my eyes playing tricks in the moonlight. It definitely looked bulkier, though, and with the temperature now well below freezing, it'd be like running into a solid wall of ice! But it didn't matter what conclusion I came to, it was too late to turn back now. We were charging straight into it at 50mph and, just as we were about to hit, I pulled the controller wide open and plunged headlong into the snowdrift at 50mph.

It was a terrifying experience; there was a loud crumpling sound; the floor lurched, the manager woke with a start and leaped out of the seat, gaping wide-eyed at me, then at the snow piling up on the nose - "Bloody 'ell, what're you doing?" he yelled. By now the Type 3s were rocking and rolling, chomping away at the snow, battering their way through, slowing all the time... yet winning. The manager clung to the driver's desk, shouting "Slow down, you fool!" - "We is slowing, boss!" I yelled back.

And we were...the speedometer was down to 28mph, but we kept on grinding away chunk by chunk, until the last stubborn section of snow finally gave way, and we were through.

That, for me, had to be the worst part of the whole day, yet there was a wonderful sense of

triumph at getting the job done. On arrival at Morpeth, though, another big argument ensued - the manager wanted us to go down to Benton Quarry, whereas John and I were determined to call it a day. We won the argument, went back to the depot, and signed off at 21:30... some thirteen hours after starting the shift.

It had been a long day, and I felt knackered and - unusually for me - decided against a pint at the BRSA Club, and headed straight home to North Blyth, went in the porch and heard my lovely lady shouting from inside: "What time do you call this? " she complained. "It's ten o'clock, my little Piranha."

"So where've you been till this time?" she said accusingly - "I bet you've been drinking at that BRSA Club, haven't you? Well, don't think you're coming in here stinking drunk!"

"No, no, no!" I reasoned with her - "Not a single drop of the demon drink has passed my lips."

With that, she let me in. "What have you had to eat, then?" she asked.

"Fish and chips at Berwick," I replied.

"Oh, I see," she said huffily, "And you never thought to fetch your wife any back, did you? That's just typical of you..."

I was beginning to wish I'd gone to the club after all!



What it's all about: keeping them moving! This strikingly evocative image shows an unidentified Eastern '37/0 opening up to leave Cambridge with a London service in December 1982. Here's hoping the boiler was in good nick!

Martyn Fordham

MODEL BEHAVIOUR

Gary Brzeczek shares the result of his efforts to create an impressive rendition of our own loco in her current state, using just the old Lima model. Gary writes:



My son Lewis asked if he could have a model of '003 in its current 'Dutch' livery so I decided to have a go at it. Using an old Lima model in early BR green livery, I firstly gave it a coat of white primer, followed by warning yellow using a Railmatch aerosol. I then masked off the yellow ends and upper bodysides before giving it a few coats of Railfreight grey, also a Rail-

match colour. The black around the bonnets, windows and grilles was hand-painted, carefully masking off each one as I went. I then used some old water-slide transfers that I have had for about 20 years for the numbers, arrows, data-plates and other details.

Faced with not being able to replicate the unique Dereham depot plaques, I used what the decal sheet called 'Toton alternative'; I think these were originally to be used prior to deciding on the 'cooling towers' plaque, I'm not sure. Finally I sealed the model with a couple of coats of Satin varnish. Using the Lima model, it's not spot-on body wise, the lack of skirts being the obvious difference, but it does look nice and Lewis has made it the pride of his fleet!

Why not share your own personalised tractor?



Syphon! Pictorial

Out and about

As

ever, our members have been on hand to record the latest mainline EE Type 3 action....



While the autumn RHTT season combines with the seasonal slow-down in railtour action to give this issue's mainline update a distinctly blue (and grubby!) hue, Spitfire's *Routes & Branches* 3.14 (no, really!) on 22 October took WCRC's 37685 and 37706 to a fine variety of backwaters - I mean, major railway centres...! Here 37685 poses for *Michael Gibson* at that typical '37

haunt, err, St Albans Abbey!

... while earlier the same day 37706 had been leading the special into Paddington, where the maroon loco does a reasonably poor impression for *Michael* of a Western as she poses under Brunel's magnificent Great Western trainshed.



Looking very at home on Great Eastern metals, 37087 potters though Thorpe le Soken (and past *Chris Watford's* lens) with the 3S61 11.33 (SX) Shenfield - Clacton on Sea RHTT working, on 1 November 2011. 37 218 was on the rear. The pair would soon return with 3S62, the 13.34 (SX) Clacton - Colchester GL, with '218 leading.



A week later, and Steve Pizzey caught this glimpse of 37604 through the November gloom at Peterborough, stabling between trips on the Network Rail test train, which is now regularly operating in push-pull mode using former Edinburgh-Glasgow (and then Great Eastern!) Mark 2 DBSO vehicles, to avoid the cost of top-and-tail operation. (8 November 2011)

Another week sees us back in broad-gauge-land again, but still with 37604's test-train perambulations: the loco reached Bristol Temple Meads on 15 November, having just arrived under another of old Isambard's stately trainsheds from the Taunton direction with a Network Rail test train.

Michael Gibson



"Let us spray...!" Naturally



the lengthening nights and gloomy days of late autumn have their upsides - it's railhead treatment season! Steve Potter captured 37510 + 37069 heading out of Beccles with the 3W95 0941 Ipswich to Lowestoft RHTT working, providing valuable services to railhead adhesion on 23 November 2011. (See front cover too!)

... and once again on 6

December with this time 37610 (and 37603 just visible at the rear) doing the honours, as the RHTT equipment does its thing to the rails of Stowmarket in increasingly failing light. I'm sure I can't think *why* those DRS locos on the RHTTs get sooo mucky!

Chris Watford



With the slip-slidey season gradually drawing to a close for another year, Steve



Pizzey was on hand at Marholm to capture 37610+37603 up front, and 37667 bringing up the rear, as they return RHTT stock on the 6Z10 Stowmarket to York in biting cold and damp Fenland whether on 16 December 2011. Something of a sledgehammer/nut situation here: all three locos were powering!

"Are you right there, Ted?"
37610 T S (*Ted*) Cassady
14.5.61 - 6.4.08 repotes
between duties in the "Hull"
bay platform on York station

on 29 December 2011, another busy season's RHTT work under its belt. The loco, named after the former DRS Head of Engineering, was unusually berthed here while the normal west-side stabling facility was inaccessible due to the installation of the new (and markedly less bonkers!) layout at Holgate Junction.

Mick Sasse



Buy Your Own Tractor update (November 2011 - January 2012)

By Mick Sasse

Since my last report, the number of active locos in the BYOT fleet has risen further, from 147 to 161 locos. Looking back, this time last year it was 105, and the year before it was only 91... The first prize is now nudging the £50 mark - surely a further incentive to get involved if you're not already!

	November:	December:	January:
1st prize -	37429: Phil Roberts	37119: Emyr Walters	37892: Martin Ranson
2nd prize -	37008: Steve Hollis	37219: Ian Simpson	37419: Nick Chadha

New joiners since last time are John Gothard, Emyr Walters, Neil Ruffles, Phil Roberts and Gordon Brown (all the way from Australia!) - thanks to you all, and welcome on board. Also our Mick Parker has expanded his fleet!

The big innovation in the BYOT world is that with immediate effect all those **pre-TOPS numbers are now available!** Yes, if you remember them green and with "D" numbers, or if you just missed out on your machine as a class 37, you can now (virtually) own it as an EE Type 3! As ever, a quick e-mail to me secures your loco(s) for only a pound a month each.

Finally, as ever, thank you all once again for your steadfast support every month.

Diary

Although we're still in the depths of winter, the diary is already far from empty for the early part of the year. Some dates are already in the diary for our own loco; others may be added: we'll let you know as soon as we can via the e-mail list. Everything here comes with the usual "health warnings". And don't forget to book those Spitfire tours through us! (See p. 2)

4-5 Feb. Spitfire Railtours: *The West Highland Way*, Birmingham - Fort William (2 x DRS 37)

18 Feb. Spitfire Railtours: *Cumbrian Crusader VI*, [exact route TBC] (2 x DRS 37 & others)

18-19 Feb. Mid-Norfolk Railway: Mixed Traffic Weekend (**37003** & others)

3-4 Mar. East Lancs. Railway: Diesel Gala (37109 & others)

24 Mar. Pathfinder Tours: *The Coal Grinder*, Crewe - Gwaun-Cae-Gurwen (2 x DRS 37, 66)

30 Mar. - 1 Apr. Mid-Norfolk Railway: Spring Diesel Gala (**37003** & others - EE themed!)**

31 Mar. Llangollen Railway: Diesel Gala (37240)

6-9 Apr. Pathfinder Tours: *The Easter Chieftain*, Exeter - Oban (2 x 37 & others)

14 Apr. Cheshire Cat Tours: Aberystwyth - Carlisle (NR 97/3, 2 x 37)

21-22 Apr. Pontypool & Blaenavon Railway: Diesel Gala (37421)

5-7 May Mid-Norfolk Railway: Stratford Depot Weekend (**37003** & others)

16 May Railtourer: *The Lancashire Rose*, Skegness - Blackpool (2 x WCRC 37)

19-20 May South Devon Railway: 1960s Gala (D6737 & others)

25-27 May Keighley & Worth Valley Railway: Diesel Gala (locos TBC, but a '37 is likely!)

** Denotes events our sales stand expects to attend. TBC, but others may be added too!

(Thanks once again to Steve Jones for compiling and sharing his excellent gen lists!)

Next issue, Syphon! 149, due out in April! Deadline: 15 March 2012 - thanks!

Sales Stand

Sales of our exclusive, limited-edition OO-gauge Bachmann model of 37003 are going nicely now, with well over half of the locos now spoken for. This will no doubt have been helped by the January 2012 edition of *Railway Modeller*, which carried an advert we placed (see *right*). With 37003 due to become blue again soon, we don't expect the remaining models to last long - so don't hang about if you'd like one!



Need a new moves book? Or somewhere to note all those fascinating Pacers you spotted on your trip to bunk Newton Heath? Well, our new **C37LG notepad** is for you. A sturdy, spiral-bound booklet with a protective vinyl front cover, its environmental credentials are impeccable: it's made of recycled drinks bottles, cardboard and paper! And it's yours for a mere £2.00.



What else? Our **fridge magnets**, good sellers for a while, have a new twist: now you can take your photos and we'll produce **customised** fridge magnets, just for you! These are just £1.20 each.

Finally for this issue, another new DVD from Visions International: this time we're turning electric, with **Electric Current**. This features electric locos (not units) from the late 1980s to the present day. Sparkling with nostalgia! (Oh dear!) We're offering this one at a discounted £19.00.



Happy Shopping!

Help make it happen!

Holding sales stands and raffles at diesel galas and on railtours is one of our most important ways of raising money - funds we critically need to build up the vital spares store we need (see *Loco Update* for more on this). On a good day on a railtour, we can turn over up to £1,000. But we're constrained by our ability to get people out to man them: most diesel galas run over two or even three days, but often we're only able to be there with the stand for a single day. Can you help? Helping can be as much as half a day or a full day on the stand - but it can also be as little as a couple of hours to help the "regulars" take a break. It's not hard work - almost always under cover, and can be quite fun and sociable!

Here are some of the dates we're considering for 2012 the gala circuit:

MNR galas: 18-19 February, 30 March-1 April, 5-7 May; later dates TBC

Other railways: *Swanage* (11-13 May); *Nene Valley* (19-20 May); *Keighley & Worth Valley* (25-27 May); *North Norfolk* (8-10 June); *East Lancs.* (6-8 July); *North Yorkshire Moors* (14-16 September); *Nene Valley* (28-30 September); *Severn Valley* (6 October).

Think you might be able to come along for a while at any of them? If so, just drop a line to any of the committee (see p.2). No obligation - promise!

BACK COVER: 37194, '087, '059, '667 & '688 in Stowmarket yard on 25 November 2011 laying over from RHTT work. The failure of '194 meant two 57s deputising, but after a trip (on skates) to Crown Point (see p.8), she was soon available again. *Chris Watford*

Syphon!

