

THE COMMUNICATION CORD



60163 TORNADO

New Steam for the Main Line

No. 28 Autumn 2012

Ian McDonald



AI 60163 *Tornado* is currently being painted into BR Express Blue. This digital rendering(below), which appeared on the front cover of *Heritage Railway* magazine, whets our appetite whilst we await her roll-out.



Ian McDonald/Heritage Railway

2012 ANNUAL CONVENTION REPORT

By Graham Langer

This year's convention was held at the Great Northern Hotel in Peterborough with *Tornado* based at the nearby Nene Valley Railway. Mark Allatt welcomed over 120 Covenantors before asking them to observe a minute's silence in memory of Malcolm Crawley; he then went on to review the previous year's

operations with *Tornado* on the main line and preserved railways. After this Roger Dye, standing in for Barry Wilson, looked at the current state of The Trust's finances and revealed that the past year had been a good one with Covenantor income steady at the £200,000 mark and with overall income up and lower costs a profit of

nearly a quarter of a million pounds had been made. He told the audience that preparation for the bond repayment had stayed on track and that despite the poor national economy cash flow remained healthy. Roger stressed the importance of Covenantor income, covering the future cost of *Tornado's* first heavy overhaul and



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From the chair *by Mark Allatt*



It's been yet another busy quarter for *Tornado* and therefore for the team of people needed to keep our locomotive on the rails. The highlight, as ever, has

to be our annual convention held for the first time in Peterborough and at the Nene Valley Railway. It was great to be able to catch-up with old friends – some of us have been around for over 20 years now – and make new ones too.

Graham Langer has again kindly written up the proceedings for this issue of *TCC* and I urge you to read them and contact me if you have any questions. It is very heartening to know that even in these difficult economic times the Trust is in good shape, putting away money to repay the bond and planning for the future. The secret sauce of the Trust is the loyalty and support of our covenantors, and the professionalism and dedication of our volunteers - without whom none of this would be possible. I am still surprised given all that we have achieved together since the Trust was founded that no-one else seems to have realised this and replicated our model. Given this, in 2013 I would like us to re-double our efforts to encourage more people to come on board as covenantors to support *Tornado's* continued operation.

At the convention we also made some exciting announcements on our plans for the next year. Following the success of 'The Elizabethan' the Trust is planning to promote three of its own trains in 2013, with more information to follow in due course:

King's Cross – Edinburgh - 'The Elizabethan' (8th June 2013)
Sheffield – Settle & Carlisle Line – Carlisle (25th September 2013)
'The Talisman' (Saturday 5th October)

We also announced that for logistical reasons *Tornado's* normal winter maintenance period would be split into two and at the first of those in October/ November 2012 our locomotive would be repainted from Brunswick Green into Express Passenger Blue – an announcement which made the front cover of *Heritage Railway* magazine before the first tin of paint was even opened!

Especially pleasing has been the success of the *Tornado* Team and the number of members who turned up for the first meeting. This group is vital for the future of the Trust and *Tornado's* continued

operation on the main line and I urge you to encourage any children that you know who share our passion for our locomotive to join.

Of course not everything has been rosy. We lost two trips due to failing our FTRs for unrelated reasons and another four trips due to industrial action by ASLEF with only two replacing them due to the failure of other locomotives. We continue to learn what lessons we can from this to prevent any repetition.

Elsewhere in this issue of *TCC* you can read more about our progress with Lot 2 in the third part of Graham Nicholas's article on the Vampire study, following on from Owen Evans's barn-storming presentation at the convention.

So, as you can see, our support crew and merchandise team are still working exceptionally hard, with packed forward diary of main line trains and heritage railway visits, delivering a well turned out locomotive for our passengers and some record breaking sales.

As usual we are still looking for volunteers. It takes a lot of people to keep *Tornado* on the rails, not just those who travel with the locomotive as support crew or merchandise team but also those in the engineering team in Darlington, Southall and elsewhere. At the moment we are seeking people to help with on-train finance, sales, events, merchandise logistics, marketing & fundraising, giving presentations, archives, works guides, engine cleaning, engineering (especially on the support coach), support crew and works housekeeping. There is always so much more that we could achieve with the right volunteer with the right skills and a can-do attitude. We are especially short of team coordinators who will take some form of managerial responsibility within their discipline. Please email volunteer@alsteam.com if you think you can help.

And finally, with Christmas rapidly approaching, please don't forget about *Tornado*. There is a gift for everyone available from our on-line store, from Christmas cards and calendars to DVDs and models. And of course there is the gift of membership of the *Tornado* Team for 5-15 year olds.

Thank you all for your support throughout this year. Your kind letters and emails always help to keep the team motivated. I hope to see as many of you as possible out on our trains over the next few months. **TCC**



A1 60163 Tornado pictured with her supporters at Peterborough (Nene Valley Railway), 15th September 2012.

any funding for the P2 likely to start with a second boiler being constructed. The legacy programme continued to grow slowly.

Next up was David Elliott to present his engineering report. David stated that *Tornado* had now clocked up 58,000 miles, two thirds of the mileage an original A1 was likely to accumulate before being shopped. He observed that the water treatment seemed to be playing its part in prolonging the life of the boiler and that Southall was becoming an ideal operating base for the locomotive. David looked back at some of the work conducted on

No. 60163 since last year, a C exam, winter maintenance, various inspections, a tender repaint and tyre-turning at Wimbledon. Running repairs since she left the Mid Hants Railway have included sorting out a sticking safety valve, replacing some superheater elements and a corroded whistle spring! David delegated the task of explaining recent electrical developments to Rob Morland who confirmed the systems were holding up well to the rigours on main line work and that new high-performance batteries had been fitted to the engine; he also explained that progress was being made on the design

of the GSMR radio equipment that will be required next year. David concluded by praising those involved in the running repair carried out during the Royal Train duty and telling his audience that work on the support coach was back on track with an in service target of March 2013.

John Wilkinson took over from David to report on the locomotive's performance, noting that since last year she has visited England, Scotland and Wales and although operations were interrupted by two small failures and issues with the support coach, an amazing amount of work had included many 'Cathedrals Expresses', the incredible



Sponsorship and Events Director Alexa Stott welcomes covenantors to the 2012 convention.



Graham Nicholas briefs the audience about the ongoing progress of the P2 project.



Ian McDonald



David Elliott

Ian Matthews aka 'Rembrandt' has been given the task of painting A1 60163 Tornado into British Railways Express Blue.

“The secret sauce of the Trust is the loyalty and support of our covenantors, and the professionalism and dedication of our volunteers”



Marcus Gilmour

A1 60163 Tornado has run a very successful year of rail tours, the most high profile of which was the Trust's own 'Elizabethan'.



**AI 60163 Tornado
undergoes lining out at
Southall, November 2012.**

'Cathedrals Explorer' tour of Scotland and associated hill climbing feats as well as the Royal Train and heritage railway visits. John paid tribute to the efforts of the support crew and explained the progress being made with competency assessments and training; he also expressed his satisfaction with our working relationship with DB Schenker and the facilities now available at Southall where good supplies are available and economies of scale are possible. Finally John paid a warm tribute to Terry Newman who has retired from our main line support crew.

In covering operations, Richard Peck told Covenantors that it had been a busy and successful year with twenty-five Steam Dreams duties, two Pathfinder tours, our own 'Elizabethan' and two heritage line visits. He was pleased to say that next year's schedule offered plenty of East Coast Main Line running, another 'Elizabethan' and a potential visit to the Severn Valley Railway in the autumn.

Gill Lord then reported on the superb work of the merchandising team. She said they had sold £104,858 worth of merchandise, making a profit of £40,829 and shifting an amazing 13,716 items. This

excludes a further £14,200 from third party licences as *Tornado* has now had a trade mark granted. New for this year will be a replica of the dedication plate carried on the locomotive's frames for covenantors only. The team still needs more volunteers for trains and the sales stand.

After Gill, Alexa Stott covered volunteering, suggesting that the motto for next year could be "Keep Calm & Covenant!" and that we still need more volunteers in many areas, particularly merchandise team leaders. Support coach fundraising was steady and the *Tornado* Team was proving a winning idea, although more youngsters should be encouraged to join. She concluded by reminding Covenantors of Easyfundraising and Easysearch as painless ways to donate to the Trust, especially with Christmas approaching.

Graham Nicholas then dealt with performance issues by introducing Owen Evans of Delta Rail who has built the computer model of *Tornado* and is now developing the P2 model. Owen explained the process and how his company had used data obtained from *Tornado's* test

runs and the Network Rail track recording train to facilitate this and contrive a computer model of the P2. Owen then showed his fascinated audience a computer animation of the Vampire P2 negotiating an increasingly tight curve, a simulation which, although extreme, demonstrated the inherent misbehaviour caused by the original Gresley swing-link pony truck; he then explained that this would be the starting point to develop a much better arrangement!

Mark Allatt concluded proceedings with an announcement that *Tornado's* winter maintenance schedule was to be split in two and the earlier part of this in October and November would enable the locomotive to be repainted..... blue!

Following the meeting at the Great Northern Hotel, 140 Covenantors enjoyed lunch aboard a special train hauled by *Tornado* as well as an opportunity to look round the Nene Valley Railway. In the evening a party of 40 assembled for the annual convention dinner and were entertained afterwards by Murray Brown, editor of *Rail Express* magazine. All in all a highly successful and most enjoyable weekend. **TCC**

MERCHANDISE UPDATE *by Gill Lord*

Our visit to the North Norfolk Railway in September was a great success. The station staff at Waybourne were very helpful, arranging the waiting room to suit our table size, providing endless cups of tea and coffee, altogether making us very welcome. Our sales were excellent and we left knowing that the NNR had been well and truly 'Tornadoed'!

I am sure we all enjoyed the 2012 convention at the Nene Valley Railway. The merchandise stall was set up at Wansford and when *Tornado* pulled in, the sales team sprang into action. It was only a short stop, barely 30 minutes but during that time the sales topped £1,100, so a big thank you to all who visited the stall. You will be pleased to hear that all of the sales team are now fully recovered!

Whilst *Tornado* is undergoing annual maintenance, all the merchandise has been taken from the support coach to our storage facility in Cannock. During this break I have decided that we should undertake a mid season full stock-take, a long-winded boring job but necessary to make sure everything is correctly accounted for. There will be a team of eight descending on Cannock armed with stickers, pens and plenty of coffee and the job should be finished fairly quickly!

I am pleased to inform you that our online sales have now topped 2,500, a great result which has kept Chris Walker busy over the last two years. The run up to Christmas is always our busiest time and Chris always makes sure that orders are dealt with quickly and Christmas presents delivered on time, Royal Mail permitting.

With *Tornado* going into her blue



Tony Lord

Merchandising continues to be a major revenue earning stream for the Trust.

livery, I have been actively sourcing items in BR Blue to add to our Apple Green collection including:

A limited edition of 250 boxed badges by R.E.V. Gomm, *Tornado* in BR Blue at £5.00 and our popular oval badge, again with *Tornado* in BR Blue at £2.00.

Also in blue we have our mugs, jigsaw and postcards.

The Bigjigs wooden *Tornado* will also be available in BR blue from March 2013 as well as Apple Green.

Christmas is just around the corner and we do have our Official 2013 *Tornado* calendar at £8.00 and *Tornado* Christmas cards, a pack of four different scenes £4.00.

New this year as special presents are:

- **Pewter 'N' gauge model of *Tornado* by DJH models at £45.00**
- **Hornby R3098 *Tornado* Special Edition in Brunswick Green, late BR Totem at £120.00**
- **Hornby R1169 *Tornado* Pullman Express, Brunswick Green at £150.00 including an oval of track, a siding, a controller, a transformer and a mat to install it all on.**
- **A3 size Poster of *Tornado* pulling a rake of teak coaches at the Severn Valley Railway at £2.50**
- **Finally we have our Dedication Plate made to order, £190.00 un-mounted, £265.00 mounted (please allow six weeks for delivery).**

New for the children:

- **Tote Bag, water resistant at £4.00**
- **Pencil Case Set, pencil, ruler, eraser and pen at £5.00**
- **Pencil crayon tube with sharpener at £2.50 TCC**

HELP TORNADO WHILST YOU DO YOUR CHRISTMAS SHOPPING *by Chris Walker*

Please remember to do your on-line shopping via the Easyfundraising.org.uk web site. If you do, the Trust will get a percentage of what you spend at no extra cost to you. There are around 2,000 retailers participating in the scheme so there isn't much that you cannot buy this way.

Disappointingly, out of all of our Covenantors we have only 52 people registered with the [easyfundraising](http://easyfundraising.org.uk) site. They have so far raised over £600 without spending a penny more than they intended. We have well over 2,000 Covenantors; just think what we could do if only half of them registered with the site and remembered to do their on-line shopping that way. Full details of how to register were included in TCC25 (still viewable on-line at www.a1steam.com).

Even if you only want to research before going to a real shop, you can still help. [Easyfundraising](http://Easyfundraising.org.uk) has a price comparison facility. It also has a sister site, [Easysearch](http://Easysearch.org.uk) that is a search engine like Google, Yahoo, etc. For each search by a registered member, the Trust gets a small donation.

Go on – give it a try! **TCC**

FIVE DAYS IN THE LIFE OF THE MERCHANDISE TEAM

by Diana Hurfurt

Much has been written about *Tornado's* epic week in July which saw her haul the Royal train, convey 'The Elizabethan' back from Edinburgh, and substitute for unavailable locomotives on two other trips. That week also became a marathon for the merchandise team – here are a few of the highlights!

It started on the afternoon of Tuesday 24th July when Gill and Tony Lord, Janet Hill, Nigel Roake and I met at Peterborough station for a strategy meeting. Gill and Tony had already loaded Janet's car up with everything that we would need for the outward 'Elizabethan' – 400 merchandise brochures (with order forms and trifold promotional leaflets), two chip and pin machines, float, money belts and additional stock. After our meeting Nigel returned to London where he would join the train the next day, and Jan and I headed for the Peterborough Travelodge. After a meal with Maurice Pinner, who drove to Peterborough from Somerset after work, we headed off for an early night.

Nevertheless, Janet and I arrived at the station good and early to unload all the goods for the train. I have noticed that very few stations have luggage trolleys nowadays (presumably because most people have suitcases with wheels, and it saves them ending up in the nearest river). That can be a real problem for a merchandise team trying to take lots of heavy boxes into a station. Fortunately we met up with the rest of the team in the car park (Paul Davies, Maurice and the Browning family), and we carried everything onto the platform between us.

We always knew that working this particular train would be difficult because we would not have access to the support coach, and therefore any of our stock or equipment, until we coupled up to *Tornado* in Edinburgh. Gill, Chris Walker and I spent several hours on the 'phone in the weeks leading up to the trip planning the logistics. That paid off in that we were able to distribute our brochures, and collect orders from diners, before we reached Edinburgh.

Those of you on the trip will remember that we had a very short layover in Edinburgh. During that time we had to move everything we had taken on to the train in the morning into the support coach (once coupled), and then start bagging up the merchandise orders. We normally allow about three hours to do that: on this trip we only had about an hour before the passengers started to return to the train. On leaving Edinburgh we also had to get the trolley through the train to give standard class passengers a chance to purchase their *Tornado* souvenirs, as well as delivering all the orders to First Class and Premier Dining (particular thanks to Graham and Gill Nicholas who ran up and down the train several times with armfuls of carrier bags!). It was all incredibly hectic for a few hours, but I think we managed to get everything done! We were also shadowed by Tony Streeter from *Steam Railway* magazine (see the November issue) who kindly helped with bagging up orders.

On arrival back at Huntingdon we caught the coach back to Peterborough. After a quick review of the sales list I got to bed around 1:30am

At 6:25am the same day Maurice picked me up outside the hotel for the drive to Northampton ready for the trip to Winchester. We met Chris Walker in the car park at around 7:30am (he had driven from Wolverhampton) with yet more stock. Gill and Tony were also due to join us but unfortunately their car broke down on the way from Stevenage (where they had got to bed at about 2:00am after being stewards on 'The Elizabethan'). So, amidst jokes about the lengths that some people will go to to get out of being on the merchandise team, just three of us

embarked on the day's work.

We normally have a team of five but, as *Tornado* was a late substitute for the trip, it was difficult to find volunteers at short notice. So it was another long day. In addition to his merchandising duties, Maurice prepared breakfast and lunch for the support crew, who were also having a very long few days. On return to Northampton in the evening Chris dropped me at my hastily booked hotel, while he and Maurice drove off in their respective directions.

After a slightly more relaxed start the next morning I caught the train back to my home in Malvern. Then time to start the reconciliation of money taken as against stock sold for the two trips, and to process the photo order sales.

Two days later Chris, Maurice and Janet met up again, this time in Bristol, to work the Devonian trip (double heading with Duke of Gloucester). This was also a very short notice trip so we did not have a full complement of volunteers. Nevertheless, it was another successful trip for the team.

I hope this gives a flavour of what we do on the merchandise team, and that it highlights some of the practical and logistical issues we face. Because of the different nature of our sales (mostly on a moving vehicle which is not always where you and your stock are) planning ahead is vital if it is going to work. But we have great fun, and we do raise a lot of money for *Tornado*! If you think you might enjoy it why not come along and join us – we are always looking to recruit new volunteers! **TCC**



FOR SALE 8 TORNADO SMOKEBOX NUMBERPLATES

All have been carried by *Tornado* and are available at £200 each – an ideal Christmas or birthday present!

- **3rd July 2011** – 'Torbay Express' – Bristol to Paignton & Kingswear and return
- **10th July 2011** – 'Torbay Express' – Bristol to Paignton & Kingswear and return
- **17th July 2011** – 'Torbay Express' – Bristol to Paignton & Kingswear and return
- **18th May 2012** – 'The Cathedrals Explorer' - London Victoria to Durham
- **22nd May 2012** – 'The Cathedrals Explorer' - Inverness to Edinburgh
- **28th June 2012** – 'The Cathedrals Express' - Salisbury to Worcester and return
- **26th August 2012** – 'The Cathedrals Express' - London King's Cross to Ely & Norwich and return
- **30th September 2012** – 'The Cathedrals Express' - Maidenhead to Kingswear and return

To secure your number plate (all profits to *Tornado*) email shop@alisteam.com. Please allow 28 days for delivery. **TCC**

TORNADO ON TOUR *by Graham Nicholas & John Wilkinson*

'The Cathedrals Express', 26th July

Northampton to Winchester IZ65 charter for Steam Dreams 580 miles run

As *Tornado* was whisking us all back to London aboard the previous day's 'Elizabethan' railtour, few people would have realised that a most remarkable turn round was about to be enacted. Despite the rigours of nearly 400 miles of high speed running, the A1 was serviced (coaled, oiled, watered and fire cleaned) in just two and half hours on Southall depot before departing again to travel to Northampton. The reason for this frantic activity was that the booked locomotive for the trip, 6201 *Princess Elizabeth*, was unavailable. Amongst the fresh support crew members 'scrambled' for this working was Terry Newman (RO), turning out for what is expected to be the final time for us as part of a *Tornado* support crew. So a special thanks to Terry for all the time he has given us in this role, his previous NELPG experience with cousin pacific 60532 *Blue Peter* being of particular benefit to us in the early days.



Ian McDonald

'The Tamar Devonian', 28th July

Bristol to Plymouth IZ96 charter for Pathfinder Tours 265 miles run

With scarcely a pause for breath, *Tornado* was once again in 'Thunderbird' mode, this time deputising for pioneer BR pacific 70000 *Britannia* to form a 'super power' partnership with 71000 *Duke of Gloucester*. Unusually, the decision was taken not to clean the locomotive as there would not have been time to achieve the usual standard of turnout. *Tornado* scored a unusual 'first' on this trip, using Welsh coal for the first time(!); she subsequently ended up being an unexpected visitor to Bristol Barton Hill depot for a couple of weeks following the trip. We are grateful to the depot staff for their help and assistance during this unplanned event.



Edward J Dyer

'The Cathedrals Express', 18th August

London King's Cross to Durham 1Z67 charter for Steam Dreams 576 miles run

Jack Beeston



Diverted from Scarborough. First trip after Olympics 'embargo'. Having been recovered back to Southall in the nick of time, *Tornado* started the day with an 'interesting' selection of coals in the tender: Russian (left over from 'The Elizabethan'), Welsh (from 'The Tamar Devonian') and Daw Mill (fresh top up of the tender before the run). This led to 'challenging' conditions on the footplate and the fire had to be cleaned during operational stops throughout the day to avoid causing serious delays. Despite these difficulties, passengers enjoyed a bumper day of ECML steam mileage and there were lots of happy people making their way home despite a late arrival back into London King's Cross.



Peter Allen

'The Cathedrals Express', 26th August

London King's Cross to Norwich 1Z42 charter for Steam Dreams 322 miles run

Thankfully, a more routine day out for all concerned, the main operational interest being the requirement to get the loco moved to the North Norfolk Railway directly after the trip. After pausing for a lengthy stop-over at Ely during the night, *Tornado* eased over the new rail link at Sheringham the following afternoon and was thus in position for her first visit to East Anglia's premier preserved railway.

TORNADO ON TOUR *continued*

North Norfolk Railway 27th August to 9th September 352 miles run

Many new friends were made as *Tornado* took up a starring role for the North Norfolk Railway's August Bank Holiday Gala event. Other 'big game' locomotives included 9F 92203 *Black Prince*, owned by well-known steam locomotive and wild-life artist David Shepherd, who has able to join Mark Allatt on *Tornado's* footplate during the event. Other highlights included double-heading with the B12 (now back in resplendent LNER livery) and working a freight train. *Tornado* should have worked Norwich to Salisbury and return on 13th September but this was one of the runs lost to the industrial action affecting DB Schenker so the AI was transferred directly to Peterborough courtesy of Direct Rail Services.



Ian McDonald

Nene Valley Railway 15th to 24th September 261 miles run



Paul Davies

Tornado was of course specially turned out for the Annual Convention on the 15th September, hauling two return trains for us on the railway in the afternoon. Following a maintenance week (during which the brick arch was rebuilt), the AI was back in steam for another Gala event, being admirably paired up with fellow East Coast pacific No 4464 *Bittern* (attending in place of the unavailable 71000). Another entertaining combination was that with resident Standard 5 No 73050 *City of Peterborough*.

'The Cathedrals Express', 30th September

London (Maidenhead) to Kingswear IZ31 charter for Steam Dreams 415 miles run
Back on the mainline following her two gala appearances, *Tornado* enjoyed a successful day out to the southwest 'Riviera'. Some brisk running was seen in both directions with excellent climbs to Savernake and Whiteball summits and the usual enjoyable dash along the famous Devon sea wall section between Dawlish and Teignmouth.

Timekeeping was particularly impressive on the return journey, being within a minute of a 'right time' arrival back at Maidenhead. Spare a thought though for the valiant support crew and merchandise team members remaining on board, as what should have been a simple onward move back to Southall instead met with a frustrating delay at Slough, due to an incident at Hayes and Harlington.



Gerry Hurford



Steve James

'The Cathedrals Express', 6th October

Southend to Canterbury IZ72 charter for Steam Dreams 289 miles run

Following the livery decision announced at the Annual Convention, this turned out to be *Tornado's* last run in BR Brunswick Green so the support crew made an extra effort for the locomotive to be seen well presented for the occasion. Breaking further new ground in the County of Essex (where stations are optimistically branded as the 'Sunshine Coast' and the lampposts are painted pink!) the merchandise team enjoyed a particularly successful day with their new clientele from Southend. Passing Stewart's Lane depot, the train was greeted by members of 35028 *Clan Line's* support crew and there followed some brisk running to record a right time arrival at Canterbury. *Tornado* and the team were on this occasion 'let off home early' (for good behaviour!) at Battersea to effect a smart return to Southall (the train continuing back to Southend diesel-hauled). **TCC**



71000 Duke of Gloucester & A1 60163 Tornado make a storming getaway from Bristol Temple Meads with 'The Tamar Devonian', 28th July 2012.

John Rawlings



TOUR DIARY

Below are the future operations *Tornado* is confirmed to be involved in. More details will be published on www.a1steam.com as trains are finalised. Contact details for tour companies appear at the bottom of the page.

2012 Tour Dates

- **Saturday 24th November** - 'The Cathedrals Express' - London to Shrewsbury and return - promoted by Steam Dreams
- **Thursday 29th November** - 'The Cathedrals Express' - London to Bath and return - promoted by Steam Dreams
- **Saturday 1st December** - 'The Cathedrals Express' - Ipswich to Bath and return - promoted by Steam Dreams
- **Monday 10th December** - 'The Cathedrals Express' - Peterborough to Winchester and return - promoted by Steam Dreams
- **Saturday 15th December** - 'The Cathedrals Express' - Ashford to Norwich and return - promoted by Steam Dreams

2013 Tour Dates

- **Friday 1st March, Saint David's Day** - 'The Cathedrals Express' - London to Swansea and return - promoted by Steam Dreams
- **Saturday 9th March** - 'The Cathedrals Express' - London Paddington to Plymouth and return - promoted by Steam Dreams
- **Saturday 23rd March** - 'The Cathedrals Express' - London Paddington to Kingswear and return - promoted by Steam Dreams
- **Saturday 13th April** - 'The Cathedrals Express' - London to York and Durham and return - promoted by Steam Dreams
- **Thursday 18th April** - 'The Cathedrals Express' - London to Salisbury, Bath and Bristol and return - promoted by Steam Dreams
- **Saturday 20th April** - 'The Cathedrals Express' - London to Caernarfon & Holyhead and return - promoted by Steam Dreams
- **Tuesday 23rd April** - 'The Cathedrals Express' - Kensington Olympia to Carlisle (via the Settle & Carlisle Railway) and return - promoted by Steam Dreams
- **Thursday 25th April** - 'The Cathedrals Express' - Colchester to Carlisle (via the Settle & Carlisle Railway) and return - promoted by Steam Dreams
- **Tuesday 21st May** - 'The Cathedrals Express' - Banbury to Exeter, Kingswear & Dartmouth and return - promoted by Steam Dreams
- **Thursday 30th May** - 'The Cathedrals Express' - London King's Cross to York and return - promoted by Steam Dreams

- **Saturday 8th June** - 'The Elizabethan' - London King's Cross to Edinburgh and return (return locomotive to be advised) - promoted by The A1 Steam Locomotive Trust with booking through Pathfinder Tours
- **Saturday 15th June** - 'The Cathedrals Express' - Edinburgh Waverley to Inverness and return - promoted by Steam Dreams
- **Thursday 27th June** - 'The Cathedrals Express' - Norwich to Salisbury and return - promoted by Steam Dreams
- **Wednesday 3rd July** - 'The Cathedrals Express' - London King's Cross to York and return - promoted by Steam Dreams
- **Friday 5th July** - 'The Cathedrals Express' - Lewes to Salisbury and return - promoted by Steam Dreams
- **Saturday 13th July** - 'The Cathedrals Express' - London to Beverley and return - promoted by Steam Dreams

The Trust respectfully requests that anyone wanting to see *Tornado* follows the rules of the railway and only goes where permitted.

Germany in 2014?

Could *Tornado* visit Germany in 2014? That's the proposal currently being considered by the Trust after an invitation from Meiningen steam locomotive works. We are looking at it and have set up a team to consider how it would work. It's too soon to say what the result of that will be but we'll only consider taking *Tornado* if we have a really robust plan in place.

If it happens, the trip is expected to coincide with Meiningen's centenary, in summer 2014 and *Tornado* could be out of Britain for up to six weeks and that the visit would involve main line running as well as display at the Works. Such a trip would build on the relationship developed around a decade ago during the process that led to our selection of Meiningen to supply *Tornado's* all-steel boiler, built in the Works in 2006. The boiler was built to pan-European pressure vessel regulations, potentially assisting in the challenge of certifying *Tornado* to run in Germany. However, fitting the country's PZB90 equipment - roughly equivalent to the Train Protection and Warning System - would be among various requirements for *Tornado* to run on Germany's main lines.

It would certainly be an historic project and it's lovely to have been asked, but we'll only do it if we can be sure it'll be a success.

The following tour operators and preserved lines are involved with the operations listed above:

Steam Dreams

Web: www.steamdreams.com

Tel: 01483 209888

Email: info@steamdreams.co.uk

Pathfinder Tours

Web: www.pathfindertours.co.uk

Tel: 01453 835414/834477

Email: office@pathfindertours.co.uk



Construction of a new brick arch at Wansford. This was the second time this summer that this work was undertaken as the arch fitted in July had not lasted well.

After the frenetic activity leading up to and during the Royal Train operation, the engineering demands have settled down somewhat. However, in addition to the routine inspection work there have been some out of course repairs.

The exhaust injector has been suffering from steam blowing through it when it is off due to the control valve on the back of the firebox leaking when closed. Attempts to cure it by re-cutting the seat in situ were not successful so whilst the locomotive was marooned at Bristol due to the DBS industrial action, the chance was taken to remove the valve and take it back to Darlington where Tom Jones (of lightning cylinder drain cock repair fame) recut both steam and clack valve shut off valve seats and made a new stainless steel valve head as the old one was found to be distorted.

The vacuum ejector and its steam pipe work has become increasingly leaky over the last few months so when the locomotive returned to Southall, the opportunity was taken to remove the steam pipes and replace the combined

joint at for the two pipes at the cab end with two separate unions. Attention was also paid to the ejector with new copper washers being fitted to plugs in the body and the drain system unblocking. It is working well now.

The front air pump developed a steam leak prior to the double headed run to Plymouth, so on return to Southall, John Pridmore took the pump off the locomotive and fitted new steam cylinder gaskets which cured the problem

The next winter maintenance programme is going to be heavier than previous periods with the need to replace the cylinder liners and the superheater elements. All the coupling and connecting rod bushes will need changing and the crossheads re-metalling. Whilst this is done the slide bars will be re-ground to restore them to flat and straight. We also have to assist Interfleet, working on behalf of Network Rail, to fit the new GSMR radio system without which we will not be allowed onto the main line in the New Year. There is also the matter of a re-paint into blue.

As it has turned out we have a six week gap in the schedule in October and November (coinciding with the leaf fall season) so the decision has been taken to split the winter maintenance into two sessions. During the October/November period the new superheater elements will be fitted and the loco repainted into BR Blue. Preparatory work is also being done for the GSMR installation and the cylinder liner replacement. For the latter it is necessary to remove the front buffer beam to fit the new liner into the middle cylinder. Unfortunately this was not appreciated when the electrical system was being installed and there is a fixed conduit running behind the buffer beam which will have to be moved. To overcome this problem Paul Depledge and Rob Morland are replacing the conduit with a flexible umbilical with a multi-pin plug and socket at each end.

The remainder of the work is being planned for January and February including fitting the new cylinder liners. In preparation for this the new liners are about to be dispatched for machining. **TCC** ➤



Ian McDonald

Staging for the new 'brick arch'.



David Elliott

A leaking stay weld.



David Elliott

The front safety valve in pieces after problems were encountered after Railfest.

SUPPORT COACH PROGRESS *By David Elliott*

The work rate has been stepped up significantly in order to complete it in time for the new season in 2013. Following their successful work of fitting the doors, Rail Restorations North East from Shildon have been contracted to complete the interior trimming and lining of the coach. This has started with the former luggage compartment which will form our stores/workshop area, and because it also contains the small diesel generator it has been lined out with thin steel sheet on top of plywood which as well as providing the necessary fire retardant qualities will stand up to the inevitable contact with heavy tools.

A significant milestone has been the return of the bogies from overhaul. Following checking that they fit, the bogie under the van end has been supported on machinery skates to allow it to be rotated to the maximum extent to check that the wheels clear the new air brake pipework, and belt for the alternator does not foul anything as it will be wider than the original dynamo belt to cope with the increased output of the alternator. The alternator (which was acquired as a spare for that fitted to the locomotive) has been sent to Dowding and Mills at Middlesbrough for re-winding and overhaul.

The three new stainless steel water tanks have been completed by M Machine and Mick Robinson has trial fitted them into the angle iron structures in the roof. Now we are confident that they fit as designed, they will be coated with duct insulation to prevent them 'sweating' in cold weather to prevent drips of condensation from damaging the ceiling below.

Paul Depledge has continued with the electrical installation. Mick has finally installed the hand brake and has assisted Tom Snowball with the hot water heating system for which the LPG boiler has been acquired and the steam/water heat

A refurbished commonwealth bogie is delivered to the Trust's Darlington Locomotive Works.



David Elliott

exchanger is in the course of being fitted in the heating cubicle. Meanwhile Mick Robinson has refitted the drawhooks and buckeye couplings.

The volunteer team of Mike Wood, Martin Brookes, Steve Wood, Gordon Little and Gordon Wells have continued refitting windows, the fixtures for the under heating radiators and refurbishing the electric train heating couplings and cables. Joiner Peter Beaumont has rejoined us to refit and where necessary replace the footsteps and to make the new battery box doors.

Having completed the drawings for the new gas bottle boxes, they were sent out for quotations after which M Machine has been selected to make four gas boxes for the cooking and heating gas bottles.

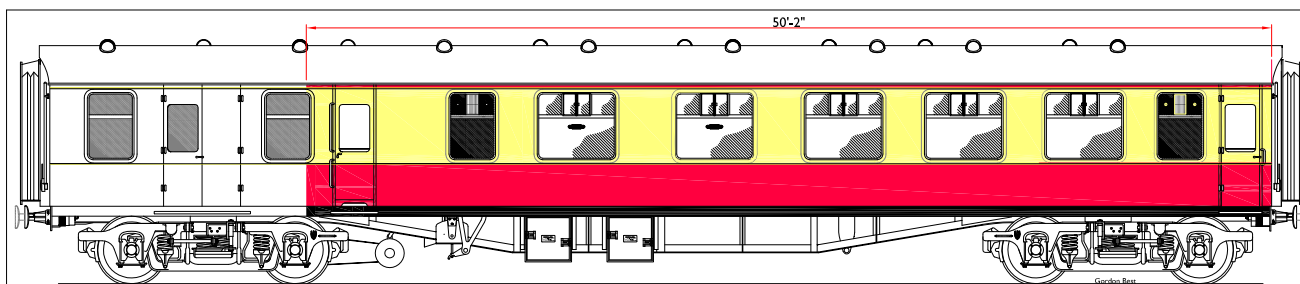
Design work continues on the diesel fuel tank for the generator and the installation of the belt driven alternator.

TCC



Work on the new support coach in progress at Darlington.

SUPPORT COACH FUNDRAISING



Your support for 'Use Your Loaf' has now reached 50ft 2in or £60,150. Your help is urgently needed to help us to complete the job.

There is still an awful lot of work to be done to complete the coach, and there are a number of ways that you can help.

- Volunteers to help with the work are always welcome, but you need to be available at the works during normal working hours. Please email volunteer@alsteam.com for more information
- Make a personal subscription to 'Use Your Loaf'
- Introduce Friends & Family to 'Use Your Loaf' and more people hooked on *Tornado*.

Use Your Loaf: Following the success of our dedicated donation scheme for the construction of *Tornado*, "an AI for the price of a pint" we've decided to

raise the bread for the support coach in a different way: 'Use Your Loaf':

- The coach is 63ft 6in in length – 762 inches – or 1524 'slices' at ½ inch each.
- Each 'slice' can be sponsored for £50; £100 for a 'doorstep'; £1,000 for 'half a loaf'; and £2,000 for a 'loaf';
- If all are sponsored, it would raise £76,200; if we assume 80% of the donations come with Gift Aid, this rises to over £93,000

And, as with the dedicated donation scheme, our 'Use Your Loaf' initiative comes with benefits for those generous enough to take part:

- A certificate recording the details of the sponsorship and a copy of a drawing of the coach noting which slice(s) have been sponsored
- Name inscribed on the official Role of Honour carried on the coach which will

detail the slice(s) sponsored

- Entry into draw for main line footplate ride on *Tornado*
- Opportunity to purchase Bachmann model of E21249 (a perfect companion to the models of *Tornado*) with appropriate one of 1524 certificates produced for sponsors. The model costs £30.00 plus £3.00 postage & packing.

As of 13th October 2012 the 'Use Your Loaf' campaign has raised £60,150 which translates to 50ft 2in of the coach's length, an increase of £2,900 since the last TCC was published, as illustrated on the diagram. Good progress but we still have a very long way to go. We look forward to reporting progress in future Trust communications as coloured section grows to the full length of E21249. **TCC**

LOCOMOTIVE MANAGER'S REPORT

by John Wilkinson

Tornado's volunteer support crew work long after the enthusiasts have gone home.

Since writing my last report at the end of June so much has happened, we have worked eight trains as well as visiting two heritage railways and completing four light engine moves. Performance and the trains we have worked as well as more detail on maintenance and repairs will be well covered in other articles.

I will start by saying thank you to all the support crew who have turned out not only for trains but for various maintenance and repair work that we have done over the last three months. The days are often long and tiring and on many occasions we have benefitted from people being able to come to help at short notice. I was tasked with improving the presentation of the locomotive as part of my role and I believe this is progressing positively. We have seen some particular feats in respect of both the cleaning as well as the overall presentation of the locomotive. The turn-out for the Royal Train is an obvious mention but I will also note the turnout for the last train on the 6th October, the last run in BR Green.

In the midst of all of the running, repairs and maintenance and managing changing circumstances caused by the industrial action at DB Schenker we have continued working on Support Crew competence training, development and assessment. We are progressing well with completing assessments and the output from these is being transferred to our competence matrix. Going forward this will be a living document as it will be updated with each change. Using the colour coding, we will be able to see at a glance where development can take place and where assessments are required. It will also be much easier to identify shortages in particular skill areas.

TERRY NEWMAN

Terry is seen here in the cab of *Tornado* at launch of the latest *Tornado* model with Gill Lord from the Trust and Simon Kohler,

marketing director of Hornby Trains.

He has been RO for *Tornado* since the locomotive started to run and, like the rest of us, has had a number of adventures over the years whilst making sure the locomotive was well presented and looking after his support crew.

After sterling service to the Trust Terry has decided that the time has come to hand over the baton to the younger generation. Deciding when to step back is never easy and Terry's approach to the difficult issue of making sure we have succession taking place is to be applauded.

I mentioned this event to Colin Kerswill, Traction Inspector, and he asked me to pass on all good wishes from friends at DB Schenker which reflects the great working relationship Terry had built with the footplate crews who operate *Tornado*.

On behalf of the Trust and the support crews we wish Terry all the best for the future, I'm sure we will still see him from time to time with the locomotive. **TCC**



Tony Lord

(L-R) Hornby's Simon Kohler with the Trust's RO Terry Newman and Merchandising Director Gill Lord.

Covenantors' Diary by Alexa Stott

The quiet after the storm! Organising this year's Convention was something of a challenge but the end result, as you will have read elsewhere in this edition of *The Communication Cord*, was well worth all the hard work. It was wonderful to see so many familiar and new faces in Peterborough and it was particularly encouraging to see the growth in numbers at the Annual Dinner; a most satisfying end to a great day. My personal thanks must go to Murray Brown for entertaining us all with his amusing recollections of the trials and tribulations of a magazine editor [our chairman, Mark Allatt, who for his sins is also editor of this fine magazine may well have had some sympathy with Murray's tales]. Of course, the dinner wasn't the last act of the weekend. That went, most fittingly, to our younger supporters – the Tornado Team – who enjoyed their first 'day out' with *Tornado* the following day.

The Tornado Team now numbers nearly 40 youngsters between the ages of 5 and 15 and we are quietly positive that we will reach our first year target of 50 members. With Christmas just around the corner, membership of the Team at a cost of £25 per year would make a great present for a young child of your acquaintance. Please email tornadoteam@alsteam.com

for further information.

There is also good news on the Support Coach fund with several donations coming in to the Trust's office at Darlington in the last few weeks. We are so nearly there so please, if you haven't already bought a slice or doorstep, think about doing so now. You can also buy a model of the support coach to go with your *Tornado* model – or even several if, like me, you have one in every colour! And of course, we will soon be able to buy another *Tornado* model – and another support coach? – in BR Blue!

As I mentioned during my slot at the Convention and is covered in more detail on page 6 by Chris Walker, another way you can help is by signing up to www.easyfundraising.org.uk. Again with Christmas in mind, registering with this website will not cost you a penny but any online shopping you do with certain retailers will see a percentage of the money you spend being donated to the Trust. And it is just as easy to sign up to Easysearch, a search engine similar to Google or Yahoo, which will see contributions going to the Trust for every search you make.

Another way in which, once again, you have helped magnificently is this year's Raffle. Thank you to everyone who has

bought or sold tickets. Our winners are: Miss J Sandles of Oxford (ticket 16586 – winning a footplate ride on *Tornado* at a preserved railway in 2013, Mr R M Hinde of Chester (ticket 01493 – a Bachmann 'OO' gauge model of *Tornado* in BR Green (with the early emblem on the tender) and Ms D Hurfurt of Malvern (ticket 07568 – a limited edition Christopher Ware print '*Tornado*!').

Finally, a request on behalf of our hardworking administration team at Darlington. Every now and again, we have to write to a small number of Covenantors whose payments appear to have stopped. This can be for any number of reasons – indeed, it is most commonly because banks have changed a reference or a code – but we have to place the Covenant on hold until we receive a reply to our letter. In the unfortunate event that you do receive such a letter from me, please could you respond as soon as possible and help the Trust keep the expense of paperwork to a minimum? In these difficult economic times the Trust is, as ever, hugely appreciative of the commitment of so many of you to maintaining your support of *Tornado* and so may I once again, on behalf of the Trustees, thank you for that commitment.

TCC

Young members of the Trust's new Tornado Team pose with their locomotive at the Nene Valley Railway.

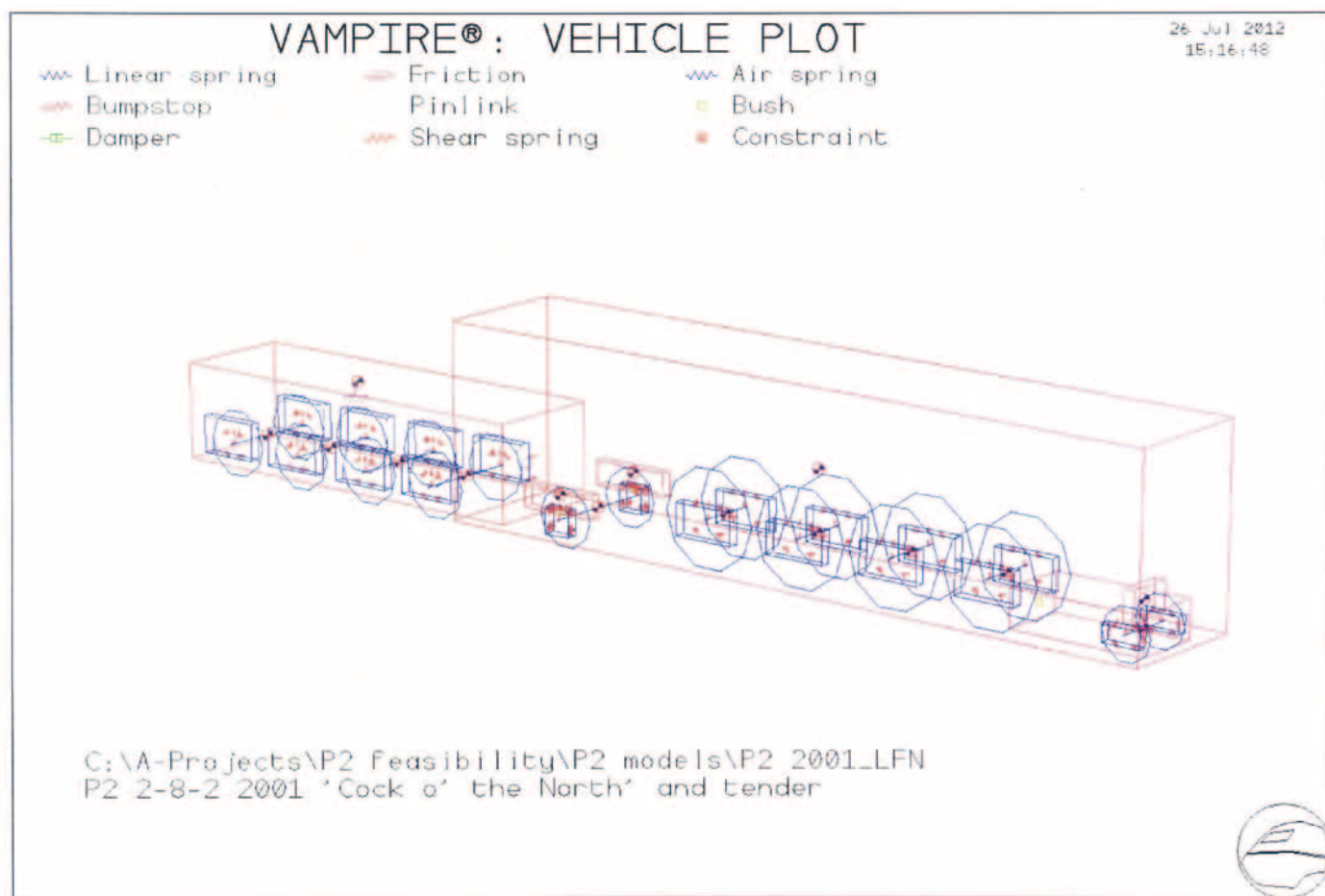


Alexa Stott

P2 PROGRESS PART 3 – *by Graham Nicholas*

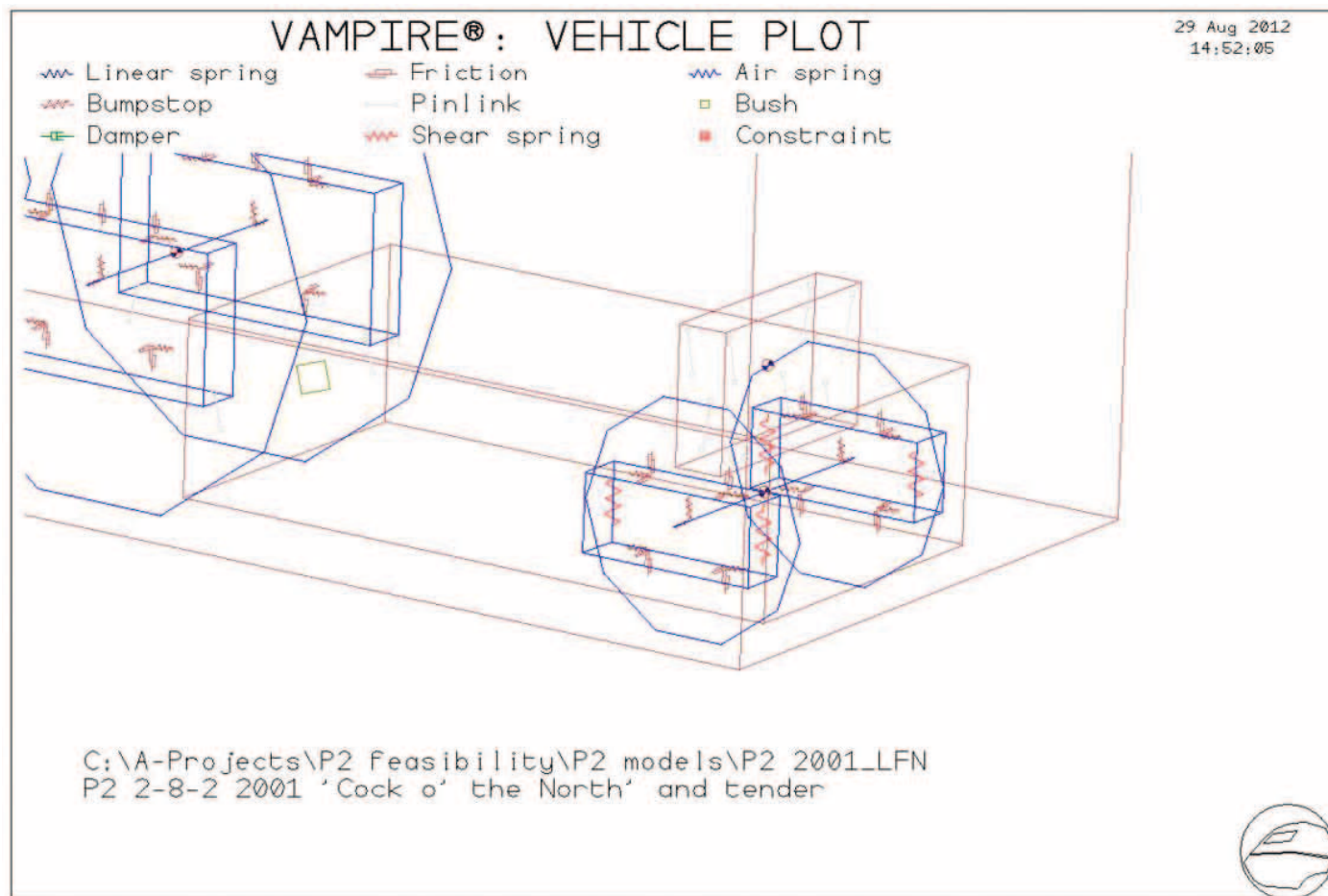


FR Hebron/Rail Archive Stephenson



VAMPIRE Plot

This illustration shows the basic configuration of a P2 laid out as VAMPIRE® can understand it - a combination of inter-connected masses and springs. (All VAMPIRE® images courtesy of Delta Rail)



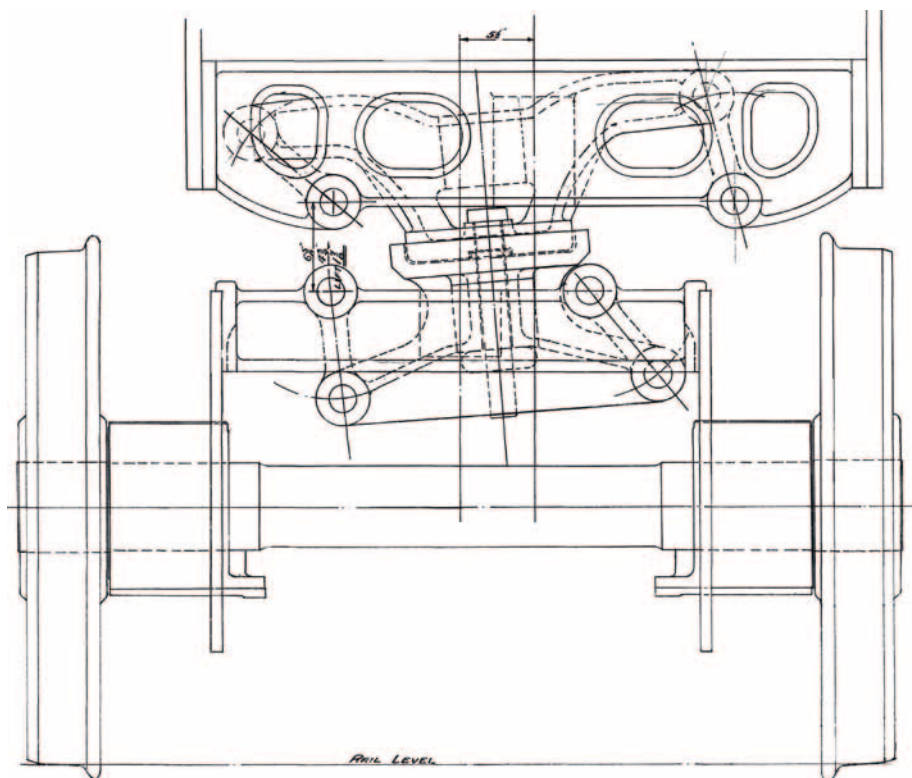
Above and right: The original drawing of the swing link pony truck (shown 'swung' to its maximum extent) masses and its equivalent modelled in VAMPIRE®

As was reported at the convention, the P2 feasibility study continues to make steady progress, with the work being undertaken by Delta Rail's 'boffin', Owen Evans.

Now that we have a fully validated computer (VAMPIRE®) model for *Tornado*, the recent activity has seen a similar computer model being developed for the original P2 design, ie phase 2 of the three-phase feasibility study. Whereas the rear end of the model (ie Cartazzi axle and tender) is the same as *Tornado*, the front end of the P2 is of course somewhat different and this is where the new work has been required.

The biggest challenge has been to replicate the infamous swing link pony truck arrangement. Careful study of the original drawings shows how the arrangement worked, consisting of a top yoke (linked to the underframe) and bottom yoke (linked to the pony truck), with the two yokes able to rotate relative to each other (to allow for the turn of the pony truck). This has been replicated on the model by a single 'lump' (mass) but with a degree of flexibility.

The mechanics of this arrangement have now been clearly understood, following



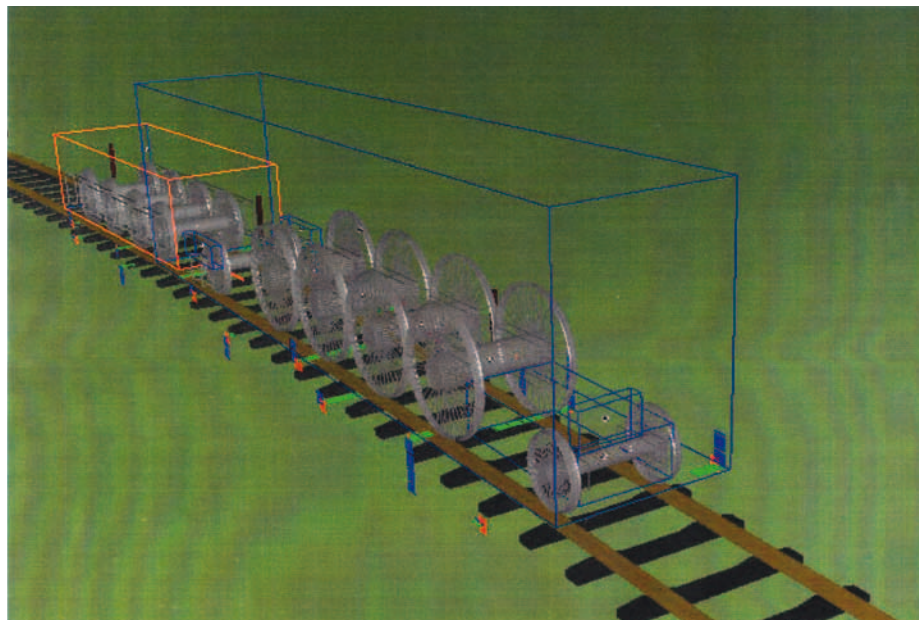
its detail examination and modelling. Most significantly, the links were configured such that the vertical distance between the bogie and underframe increases as it 'swings' away from its centre line. Put another way, it is lifting the front end of the locomotive up as it negotiates the curve. This of course increases the weight

on the pony truck wheelset, presumably in an attempt to help increase its steering capability. However, the unfortunate side effect of this is that it leads to the weight on the wheelset behind it (ie the leading coupled wheelset) to be correspondingly reduced (obviously, the overall weight of the locomotive has to stay the same!) ➤

The work has already developed far enough to allow the movement of the suspension to be shown in animated form, which is an aid to understanding. Those that were able to be at the Convention would have seen this during Owen's presentation. As the virtual locomotive makes its way round a curve of increasing radius, so the lifting effect of the front pony truck starts to take effect. At first the suspension arrangement is able to compensate but it eventually gets to a stage where the inner wheel of the front coupled wheelset is lifted completely clear of the rail!

If this all sounds a bit alarming then, yes in one sense it is. However, it should be clarified that the sort of radius we're talking about here would be the tightest of curves in a depot yard and certainly much more severe than anything that would exist out on the main line.

Nevertheless, it is interesting to reflect for a moment on the original design of the V2 locomotive type (as fitted with the swing link pony truck) and the series of derailments we already know about. In at least two of those derailments, the front pony truck wheels stayed on the rails whereas the couple wheelsets were all derailed(!)



The animated version of the P2 model, negotiating a curve of increasing radius.

In the light of what the animation is showing us, this is both fascinating and revealing in equal measure. All the V2 derailments took place at speed and occurred on track that was in relatively poor condition (during and immediately after war time). It is highly likely therefore

that there was a considerable amount of 'lively' riding in the lead up to the derailments, which could well have included an amount of 'wagging' of the front end from side-to-side. Although the track concerned was not of any significant radius, the waggle effect would lead to the



Gill and Tony Lord study and scan P2 technical drawings at the National Railway Museum, York.



suspension being momentarily hard over to one side or the other, activating the lifting effect.

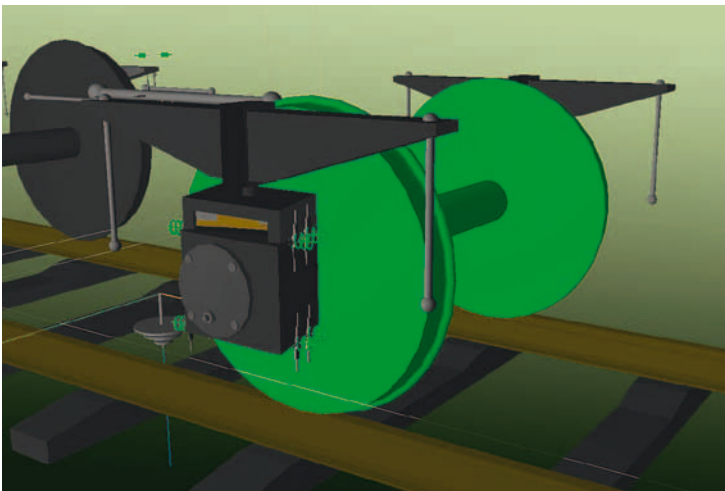
It would appear therefore that the modelling work already undertaken is beginning to produce results which appear convincing and point to less-than-desirable attributes which may have been behind the reputational issues of the originals. In the next installment, we hope to be able to contrast this with what the performance would have been like with the alternative side control bogie type fitted (the third and final phase of the study). **TCC**

(to be continued)



Above: P2 2-8-2 No 2001 Cock o'the North in the engine yard at Kings Cross on 1st June 1934.

Left: P2 2-8-2 No 2001 Cock o'the North on public display.



Certain elements of the model have now been created in 'solid' form, which improves visual understanding. This is the Cartazzi wheelset and suspension.



Owen Evans relaxes with son Philip after giving the P2 presentation at the annual convention.

The A1 Steam Locomotive Trust is pleased to display the logos of organisations giving us their ongoing support. Their contribution is gratefully acknowledged.



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Darlington Locomotive Works is normally open to the public on the third Saturday each month (11am – 4pm).

Access to the works is via Head of Steam: Darlington Railway Museum where covenantors are entitled to free entry.

Charity registration No. 1022834.

The Trust respectfully requests that anyone wanting to see *Tornado's* main line passenger trains follows the rules of the railway and only goes where permitted.

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