

THE COMMUNICATION CORD



60163 TORNADO

New Steam for the Main Line

No. 39 Summer 2015

Having taken over from Alycidon in York, Tornado heads the return leg at Great Heck.



Andrew Southwell

AN AI JUBILEE! *by Graham Langer*

After a difficult start to the year it feels like the sun has come out and is now shining on the Trust during its Silver Jubilee Year. Yes, it's been 25 years since a group of visionaries got together and decided to do something extraordinary, to build a brand new main line steam express locomotive! Who would have thought, back in 1990, that the dream would become reality, all the doubters

would be proved wrong and that by 2014 construction would have started on that organisation's second, massive, steam locomotive? The AI Steam Locomotive Trust really has something to celebrate this year.

As if all this were not enough, The AI Steam Locomotive Trust has been able to announce not one, but two more of its own railtours in the next six months,

'The Silver Jubilee Talisman' on Saturday 26th September and 'The Peppercorn Phoenix' on New Year's Eve, the former a celebration of 25 years of Trust activity, the latter a commemoration of the final AI working by No. 60145 *Saint Mungo* on 31st December 1965; why not join us and enjoy some exhilarating East Coast Main Line running behind a thoroughbred on her 'home' track? **TCC**

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Editor: Graham Langer - graham.langer@a1steam.com

From the chair by Mark Allatt



As I write this column in late July, No. 60163 *Tornado* is working 'The Torbay Expresses' out of Bristol following the completion of her

intermediate overhaul in mid-June and has already accumulated around 3,000 miles since then, hauling ten main line tours in addition to her test run and other positioning moves. These trains for ScotRail, the SRPS, The Prince's Trust, Torbay Express and ourselves have taken *Tornado* from Brora in the north of Scotland to Kingswear on the Devon coast. Meanwhile in Darlington Locomotive Works the frames for No. 2007 *Prince of Wales* have been skated back into position and the components acquired over the past few months have started to be fitted.

Although *Tornado's* overhaul didn't quite run according to plan as outlined in the last issue of *TCC* and has cost the Trust in excess of £400,000, I'm sure that you will agree with me that she has stormed back into traffic in true *Tornado* style and this is a credit to all of those who have worked on her over the past few months. We will – with your help – be working hard in the coming months to rebuild our finances and, inevitably, start squirrelling away funds for *Tornado's* next overhaul.

As you know, 2015 marks the 25th anniversary of the launch of the project to build a new Peppercorn class A1 with the launch meeting at The Railway Institute in York on 17th November 1990. The third part of David Champion's enthralling history of the Trust appears in this issue of *TCC* and reading it brought back many happy memories of our early

years. The A1 Steam Locomotive Trust will be celebrating this milestone in several ways throughout the year – the first of which being 'The Silver Jubilee Talisman' on Saturday 26th September with No. 60163 *Tornado* from London King's Cross to York, Darlington and Newcastle. Passengers electing to travel to York now have the additional opportunity to visit the staggeringly beautiful Castle Howard whilst passengers disembarking at Darlington will have the opportunity of a guided tour of Darlington Locomotive Works and progress update on No. 2007 *Prince of Wales*. There is also the option to board the train at York and travel to Newcastle and back.

Most importantly we want to use our 25th anniversary as an opportunity to highlight the importance of The 163 Pacifics Club – our desire to complete what we set out to do 25 years ago and purchase *Tornado's* tender. Other celebrations planned include special days for supporters on the Severn Valley Railway with their LNER teak train, an opportunity to get up close to *Tornado* at Locomotion in early January 2016, a dinner following our annual convention on 3rd October and 'The Peppercorn Phoenix' with *Tornado* to commemorate No. 60145 *Saint Mungo's* final run from York to Newcastle and return on 31st December 1965. Details of all of these events can be found elsewhere in this issue of *TCC*. Thank you all for your continued support. I hope to see as many of you as possible at our 25th Anniversary Convention and Dinner in Darlington in October with both *Tornado* and *Prince of Wales* and on our trains over the rest of our 25th anniversary year. **TCC**

You will have probably read elsewhere the award of British Empire Medals in HM The Queen's Birthday Honours List to Julian Birley and the late Andrew Dow. Both played crucial roles in support of the build of No. 60163 *Tornado* in addition to their many other railway heritage achievements. Julian was instrumental in helping the Trust to fund the 'last push' before the completion of the locomotive and Andrew was a Trustee of The A1 Steam Locomotive Trust for ten years from 1994 to 2004. Recognition well deserved by both – and it's pleasing to know that Andrew was aware of the award before his untimely death in April. **TCC**



Andrew Dow.

EDITORIAL by Graham Langer

The phrase "from zero to hero" has probably been over-used in recent years but I feel it is an appropriate sentiment to describe *Tornado's* rapid return to rude good health and an outstanding couple of month's running since her return to traffic in June. We have already run three times as many trains as we did in 2014, often with only a day or two's break between turns and all credit is due to the support crew and sales team for stepping up to the challenging schedule thus created. Our lovely apple green machine has once again added some new route miles to the log (indeed to that of the Peppercorn class A1s!) reaching the far north of Scotland at Brora and, substituting for an ailing *Union of South Africa*, bestrode the Forth Railway Bridge during the celebration of its 125th Anniversary, a day which concluded with this mighty edifice being granted UNESCO world heritage status. A hugely successful 'White Rose' returned No. 60163 south from Scotland to work a series of 'Torbay Expresses' before

taking her place at the head of the 'Belmond British Pullman' in August. No sooner than *Tornado* vacated her birthplace than the frames of No. 2007 were skated back in place and work re-commenced assembling them. With many parts manufactured and machined off-site during No. 60163's overhaul, progress has been rapid and the prospect of a fully wheeled chassis draws ever closer.... You know what you need to do to hasten this process, don't you! In addition, Darlington Borough Council has found the funding to renovate the exterior of Darlington Locomotive Works, adding to the work carried out by the Trust on the interior two years ago. It is wonderful that this original Stockton & Darlington Railway building (where Arthur Peppercorn once had an office) should still be loved and cared for while continuing to function as a centre of railway construction. **TCC**

DARLINGTON LOCOMOTIVE WORKS REFURBISHMENT

by Tony Lord

Darlington Locomotive Works is situated in part of what was previously known as the Hopetown Lane Carriage Works. It fills the southern end of the building including the centre tower section.

Approximately two years ago, we decided to improve the internal parts of our section of the building ready for the start of the P2 Project. We replaced the plaster on the internal walls, cleaned the floors and opened up the original staircase to the upper floors of the tower. As the building is Class 2 Listed, we had to apply for Listed Building Consent from

Darlington Borough Council to carry out the proposed works. The walls had to be plastered using lime plaster and the painted. The floors were coated with special paint and official walkways painted a different colour.

Most of the equipment was refurbished and that which could not be repaired was replaced. The exterior of the whole building was in a poor state of repair and Darlington Borough Council was approached to see if this could be rectified. They obtained a sum of money from central government and

are presently re-rendering the exterior of the building and replacing most of the windows with exact replicas of the original ones. They have also arranged for the roof and guttering to be repaired as necessary.

We are now looking to make use of the upper floors of the tower section as offices and document storage facilities. This is at the design stage and will need a separate Listed Building Consent application to be made before work can commence on site. **TCC**



Scaffolding now envelops Darlington Locomotive Works.

Bob Hughes

AI ENGINEERING UPDATE by David Elliott

The final weeks of *Tornado's* overhaul involved long days (and nights) for seven days a week. In order to fit in round the continuing assembly activity, Ian Matthews with family assistance applied the final coats of paint, lining and varnish during the night when the rest of the team was not raising dust.



The boiler was tested out of the frames.



Ian Yarrow fits insulation to the firebox.



The fully clad boiler is lowered into the frames using the Matterson synco jacks.

Fortunately, a day of running-in on Locomotion's demonstration line sufficed, as only the only new metal in the motion was the two rear coupling rod bearings, new piston rod packings and a new set of piston rings. This was born out on the test run and the subsequent four days of hauling railtours round Scotland when the locomotive ran very well and bearings remained cool. Minor problems encountered included a few small steam and leaks, the occasional bolt that required further tightening and the need to fit additional pipe clips to stop some air and steam pipes vibrating.

The main steam circuit was fully steam tight and the beat is as good as it ever has been. The work done during the overhaul to adjust the coupled horn block liners has eliminated the knock that had built up over the last few months of operation.



The cab is lowered onto the frames.



In the dead of night Ian Mathews' painting goes on.



Almost ready. *Tornado* takes on an 'A3'-like appearance prior to the deflectors being fitted.



Tornado in steam at Darlington Locomotive Works.

Whilst in an ideal world we should have liked a rather longer and less frantic period to re-commission the locomotive, the problems with the roller bearings and the late return of the boiler severely reduced the available time to test and certificate *Tornado*. Thanks to timely and excellent quality work from South Devon Railway Engineering to fit the new roller bearings, the high level of output and dedication from the Darlington team with additional help from Locomotive Maintenance Services in the form of its proprietor David Wright and his staff, not to mention the excellent co-operation of Locomotion: The NRM at Shildon and the various personnel from our Insurance Company boiler inspectors, Vehicle Acceptance body and DB Schenker, our main line operator, the light engine and loaded test run to Edinburgh took place on Thursday 18th June. **TCC**

TORNADO IS YOUR LEGACY *by Mark Allatt*

Remembering The A1 Steam Locomotive Trust in your Will

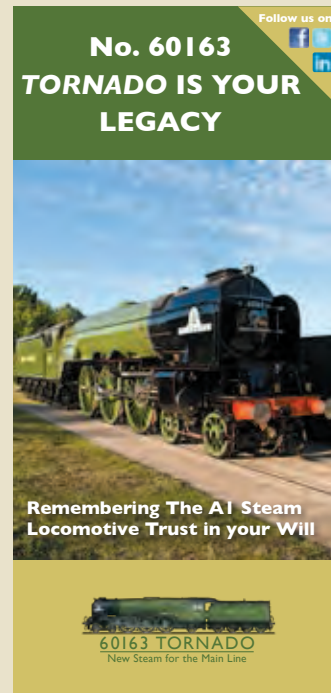
Funds to build No. 60163 *Tornado* were raised through deeds of covenant “an A1 for the price of a pint of beer a week”, sponsorship, commercial loans and through a £500,000 bond issue – both since repaid. Today, as you know, The A1 Steam Locomotive Trust continues to operate *Tornado* on the Network Rail main line and on heritage railways to the delight of children of all ages! As you will have seen elsewhere in this issue of *TCC*, keeping No. 60163 in first class condition is extremely expensive. In addition to our Covenantors, the Trust continues to raise funds through promoting its own main line trains, hiring the locomotive to other rail tour promoters and heritage railways and merchandise licencing/sales.

However, you can help ensure that No. 60163 *Tornado* has a secure future on the main line for generations to come by leaving a legacy to The A1 Steam Locomotive Trust in your Will.

Income via legacies during the lifespan of The A1 Steam Locomotive Trust has been relatively limited. The Trust has always been extremely grateful of any gifts received for the benefit of preserving the future. It would be great if the Trust could come in line with the top UK based charities where legacy income equates to an average of 40% of fundraising income – around £80,000 per year. This would go a long way towards the funding a five year overhaul.

If you would like to support No. 60163 *Tornado* through a Legacy then please take a look through the enclosed leaflet or contact our Legacy Coordinator who will talk you through the process on **legacy.coordinator@a1steam.com** or **01325 460163**.

So, please remember The A1 Steam Locomotive Trust in your Will and you too can help ensure that No. 60163 *Tornado* has a secure future on the main line for generations to come. **TCC**



OPERATIONS UPDATE

Moving forward from the intermediate overhaul the Trust has decided to revert to a predominantly voluntary model for the operation of the locomotive. In future the locomotive will be the responsibility of one of our four voluntary Responsible Officers (ROs), namely Graeme Bunker, Huw Parker, John Wilkinson and Richard Corser with the Duty Engineer function being provided by David Wright's Locomotive Maintenance Services Limited. The Trust would like to thank John Wilkinson for his three years as our contracted Locomotive Manager and is delighted that John will continue to volunteer as one of our ROs. In particular we would like to thank him for all of his hard work during the successful intermediate overhaul when he acted as Project Manager and wish him well with his growing railway contracting business. **TCC**

John Wilkinson gets stuck in during the boiler test.



TORNADO ON TOUR

by John Wilkinson and Huw Parker

Having been out of service since 4th October, *Tornado* finally steamed as a complete locomotive on 12th June. After a number of long and very thorough inspections the time came for the first move which was gingerly carried out by Locomotive Manager John Wilkinson on the demonstration line at Darlington Locomotive Works. To everyone's joy and relief the locomotive moved smoothly and freely following all the work that has been carried out over the winter.

Ian Yarrow



Allelys collected the locomotive from the works on 13th June.

The following day was Friday and Allelys moved the locomotive to Locomotion: The NRM at Shildon for running in and by 22:00hrs that night John Wilkinson was sat on the top step of the support coach with a cup of coffee, the locomotive had a fire in it and the overhaul already beginning to fade into memory. What no-one knew then was just how successful the overhaul has been. A significant proportion of Saturday was spent with Mandy Sharpe testing and certifying the safety systems on the locomotive. This activity stretched well into the afternoon and the air of expectation within the crowd assembled at Locomotion was palpable. As one gentleman was overheard to say, “Why don't they move it?” His

colleague replied, “They're testing it”. He replied, “But that doesn't mean they can't move it!” Finally, in the late afternoon *Tornado* moved off to start running in, the exhaust beat was that perfect evenness that David Elliott strives for - fabulous! All was going well and over the remainder of the afternoon and on the Sunday some miles were run and all seemed well. On Monday it was back to the grindstone with all hands to pump for the final effort to get the locomotive ready to resume her main line career on the Wednesday. This is involved some more burning of the midnight oil and by 04:00hrs Wednesday David Wright was satisfied that we were ready to go.

Wednesday 17th June 2015, we left the hospitable folks at Locomotion who have provided accommodation for the support coach and rocked and rolled with us through the overhaul waiting for No. 60163 to materialise in Shildon. *Tornado* made her way tender first to Darlington and ran round the support coach for a trip to Tyne Yard. The run was everything we prayed for - uneventful! With five carriages and a dead class 66 added, the test run became sterner but *Tornado* set off for Scotland hardly noticing the extra weight. A good- again uneventful- run to Millerhill depot saw *Tornado* in place for run number one. We were grateful to Andy Kelly and all the staff at Millerhill who made us feel very welcome for the next two to three weeks.



Tornado and her test train cross The Royal Border Bridge at Berwick.

Saturday 20th found Tornado heading to Mossend Yard to pick up the train and head for Stirling to pick up passengers for 'The Highland Rambler'. With only eight coaches Tornado went on to demonstrate what can be done with a big locomotive over those challenging banks at Druimuachdar and Slochd with the train timing fraternity very happy with the results of their labours. Arrival in Inverness in good time and in good order,

the coal man awaited and we were ready to prepare for a visit to the Far North at Brora the following day.

The run to Brora with 'The Seaforth Highlander' was very interesting and with a maximum speed limit of 30 mph Tornado was given the opportunity to demonstrate that she excels at low speeds too! A long but satisfying, very wet day out was had by all. Monday saw

Tornado return south from Inverness to be in position to work The Princes' Trust train formed of the Belmond British Pullman stock around the Fife Circle. This run culminated in by far the best firework display we have ever witnessed with boats in the river sending up the fireworks and the train stood on the Forth Bridge (making the best grandstand in Scotland that night).

As the smoke cleared from the fireworks finale, we headed back to Edinburgh Waverley to unload some very happy passengers and a Locomotive Manager, whilst Tornado and support coach were uncoupled from the train and headed off through the night towards Carlisle Kingmoor Yard, arriving with the dawn after a short water stop at Lockerbie. There were just a few days to allow the support crew time to clean and prepare the locomotive to their usual high standards and some time to draw breath before



'The Seaforth Highlander' crosses the Kyle of Sutherland at Invershin.



'The Border Reivers' going well at Wandel.

'The Border Reivers' excursion on Saturday 27th June. Saturday dawned clear and dry and we arrived into Carlisle station with plenty of time to take on a full tender of water ahead of a good climb over Beattock. Unfortunately, we followed a freight train out from Carlisle and were then put inside to allow a faster Pendolino to pass, so never really got into our stride, but once again the locomotive and crew performed faultlessly. After a water stop at Carstairs, we set off through the South Glasgow suburbs and once clear of Paisley, got into a good rhythm through Irvine towards Ayr. Good weather and the unusual sight of a steam locomotive on these lines brought many people to the lineside to watch us pass by with some interesting expressions on the faces of passengers waiting for the following train to Ayr! Another water stop at Falkland Sidings and we then took the goods line up to Mauchline, followed by another good run down into Dumfries, before heading down to Gretna Green and the last few miles down the West Coast Main Line back to Carlisle.



The crew for 'The Border Reivers': Steve Hanczar (driver), Bob Hart (Traction Inspector) and Tony Jones (fireman) with Huw Parker (AISLT).

Back at Kingmoor, we stabled the locomotive for a week's rest before Tornado headed back to Edinburgh with support coach in tow on Saturday 4th July for two trips round the Fife Circle. Crossing the

Forth Bridge several times in daylight, to and from Edinburgh, the No. 60163 performed admirably on the Sunday, much to the delight of passengers and many well-wishers from the lineside.



David McLaren

A very clean No. 60163 is seen Waverley Station, Edinburgh.

Sunday 5th July, mid-afternoon train from Leeds saw John Wilkinson arrive in 'The Waverley' (Edinburgh Waverley Station) about 30 minutes before *Tornado* arrived. The train was taken back to Millerhill for one last time this visit

overnight and preparation to go to York on Monday ready for the 'The White Rose' on Tuesday. A smooth run to York saw everything ready to go to London by early afternoon on Tuesday. Another great run into King's Cross confirmed that

Tornado was most definitely back. After spending about 18 hours at Southall the locomotive and support coach then moved to Bristol Barton Hill depot on Wednesday 8th July ready to work 'The Torbay Expresses'. **TCC**



Geoff Griffiths

Bedecked with Czech flags to honour the late Sir Nicholas Winton, 'The White Rose' is seen at Fenwick.

'THE SILVER JUBILEE TALISMAN' by Mark Allatt

Celebrate our 25th Anniversary in style with 'The Silver Jubilee Talisman' (now with an optional visit to the magnificent Castle Howard).

We hope you will choose to join us on Saturday 26th September 2015 aboard 'The Silver Jubilee Talisman'. You can board the train at London King's Cross, Potters Bar or Peterborough and alight at York, Darlington or Newcastle. With the plumes of *Tornado's* smoke drifting past the window, First Class Dining guests will enjoy the Great British Breakfast as the train heads north on the East Coast Main Line, climbing Stoke Bank where No. 4468 *Mallard* achieve the world speed record of 126mph in 1938 and passing the 'railway capital' of Doncaster.

Arriving at York late morning, guests alighting here can choose to explore this historic city or visit the staggeringly beautiful Castle Howard, set amid North Yorkshire's gently rolling Howardian Hills. Guests transfer to luxury coaches for the relaxing fifteen mile journey to Castle Howard where you have a break of three hours to explore. Castle Howard is a magnificent 18th century residence set within one thousand acres of breath-taking landscape in an area of outstanding natural beauty. Visit and enjoy world-renowned collections, stunning architecture and learn of inspiring family stories. Relax amid idyllic gardens, enjoy a woodland stroll and maybe take tea on the veranda beside the tranquil lake.

On departure from York, *Tornado* then takes our train across the Plain of York and over the River Tees to her Darlington birthplace. If you decide to alight here you will have the opportunity to experience a guided tour of Darlington Locomotive Works where *Tornado* was completed and the Trust's second new steam locomotive, 2007 *Prince of Wales*, is under construction. You can also visit the Head of Steam railway museum next door to our works where exhibits include the Stockton & Darlington Railway's legendary *Locomotion No. 1*.

Departing from Darlington we will cross the 1825 Stockton & Darlington Railway and continue north to Durham, where the railway viaduct offers a superb vista of the cathedral and castle. It will then descend to the Tyne Valley, welcomed by the Angel of the North, where *Tornado* will haul 'The Silver Jubilee Talisman' across the Tyne on one of the many bridges that lead to Newcastle-upon-Tyne. Here passengers are able to take a two and a half hour break.

Tornado will again take charge of our train for the return journey to Darlington

and York. Here, modern traction will take over for the rest of our journey York and as we head homeward First Class Dining guests will be served a sumptuous

four-course dinner, rounding off a truly memorable day. Profits from this tour go towards maintaining *Tornado* in future years. **TCC**

Class	Darlington/Newcastle	York
First Class Dining	£249pp	£225pp
First Class	£159pp	£139pp
Standard Class	£119pp	£99pp

First Class Dining, First Class Non-Dining and Standard Class seats are available and for non-dining a buffet car is provided.

First Class Dining-Includes a silver service full English breakfast and a light lunch on the outward journey (north of York) and a four course dinner on the return leg from York*. Seats at a table for two** or four in a First Class carriage.

First Class-Includes complimentary teas and coffees, as well as afternoon tea during the return journey. Seats at a table for two* or four in a First Class carriage.

Standard Class-Seats at a table for four in a heritage carriage. An on-board buffet serving snacks and hot & cold beverages will be available.

*The York option is only available to passengers boarding at London King's Cross and Potters Bar

**Tables for Two in First Class and First Class Dining are available for a supplement of £25pp.

STOP PRESS: A limited number of tickets are now available from York to Newcastle and return on 'The Silver Jubilee Talisman' at £70.00 Standard Class and £99.00 First Class Non-Dining.

Online and telephone bookings are handled by our booking agents UK Railtours. Go to www.alsteam.com to make an online booking or call 01438 715050 to book over the phone. In the event of cancellation or haulage problems please see our full terms and conditions of carriage.



No. 60163 races past Gamston with her first 'Talisman'.

Alon Weaver

THE 163 PACIFICS CLUB-IT'S TIME TO GET ON BOARD

by Mark Allatt

As I am sure you know by now, in this our 25th anniversary year, we are focusing our fundraising for *Tornado* on the purchase of her tender. The tender is currently owned by William Cook Cast Products, the company owned by Andrew Cook and the Trust's Principal Sponsor. Andrew kindly offered to fund the construction of the tender in 2006, allowing funds being raised at the time to be spent on the engine.

The tender is leased to the Trust under a fifteen year loan agreement which will come to an end in 2021. *Tornado's* tender is a development of those built for the original Peppercorn class A1s with changes mainly down to the different operating environment on the modern Network Rail main line. Due to the lack of surviving steam infrastructure, water capacity is at a premium and so *Tornado's* tender carries 6,200 gallons, as opposed to 5,000 gallons, and 7½ tons of coal, rather than nine tons in the original A1s. The tender is also the home for many of *Tornado's* other unique features including an alternator, Timken cartridge roller bearings (pre-greased sealed self-contained units which do not have to be fitted in enclosed axleboxes), Train Protection & Warning System (TPWS), National Radio Network (NRN) radio, Global System for Mobile Communications - Railway (GSM-R) radio, GPS tracker and of course the

mobile phone charger!

We need to raise £200,000 by 2021 to purchase *Tornado's* tender – thereby making the Trust debt-free - and finally completing the project we embarked upon 25 years ago. Following the success – thanks to your generosity – of our Regular and Dedicated Donation schemes for the construction of *Tornado* and the 'Use Your Loaf' appeal for the support coach, the Trust has decided to follow a similar route for the purchase of *Tornado's* tender. However, instead of "an A1 for the price of a pint" and "use your loaf", we've decided to raise the funds in a different way, The 163 Pacifics Club:

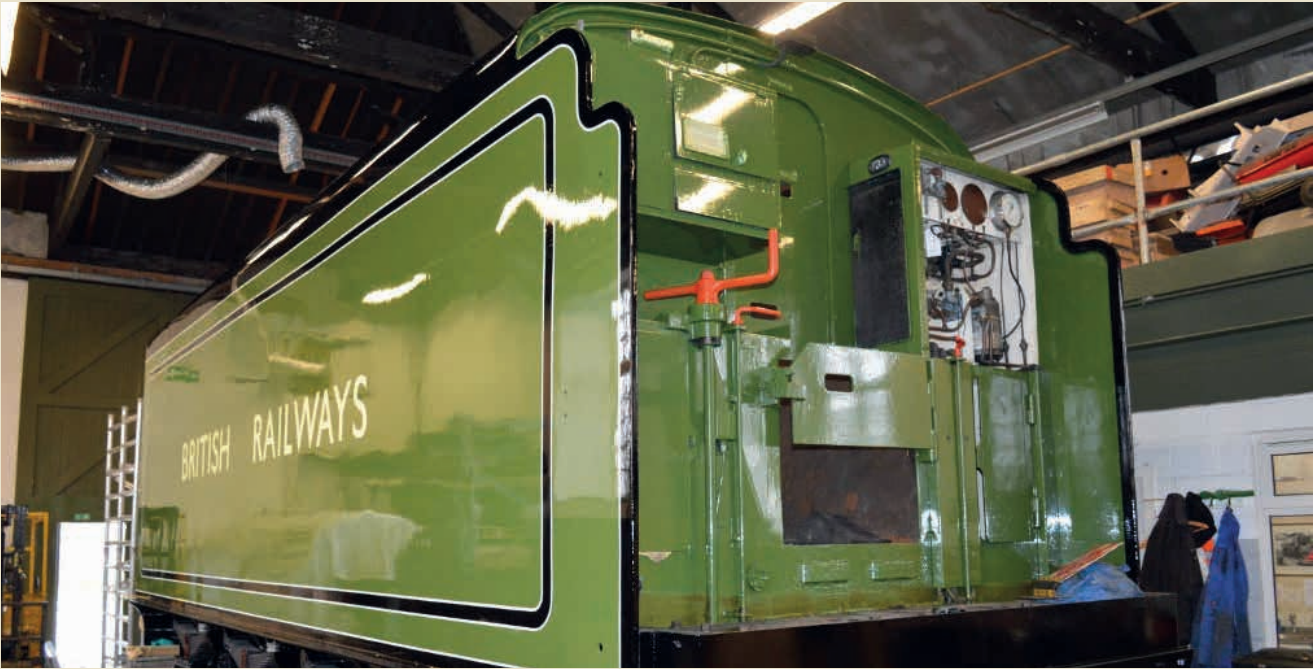
- We need to raise £200,000 to purchase *Tornado's* tender.
- Although *Tornado* carries the number '60163' - the next in the Peppercorn class A1 series following No. 60162 *Saint Johnstoun* – her pre-nationalisation LNER number would have been '163'
- There have therefore existed 163 ex-LNER express passenger pacifics with 6ft 8in driving wheels - the Gresley class A3s/A4s, Thompson class A1/1 and Peppercorn class A1s.
- A numbered certificate (1-163) will record the details of your donation and the number/name of your favourite pacific.
- If 163 people were to donate £10 per month over the eight years until

we need to purchase the tender (or alternatively make a one-off donation of £960) with the addition of Gift Aid (£2.50 per month or £240 one-off) this would raise £195,600.

As with the previous schemes, this initiative comes with special benefits for those who generously take part:

- A numbered certificate (1-163) recording the details of the donation and the number/name of your favourite ex-LNER express passenger pacific from the Gresley class A3s/A4s, Thompson class A1/1 and Peppercorn class A1s.
- Name inscribed on the official Roll of Honour in Darlington Locomotive Works which will detail the pacific sponsored.
- Entry into a draw for a main line footplate ride on No. 60163 *Tornado*. Forms to join 'The 163 Club' can be found on the website in the 'Supporting *Tornado*' section. Membership of The 163 Pacifics Club has grown steadily since its launch and almost a third of the available 163 ex-LNER express passenger Pacifics have already received new 'shed allocations'. It really is that simple! Help us to celebrate our 25th anniversary by sponsoring your favourite Pacific today and making *Tornado* debt free with her paid-for tender behind her by 2021. Thank you.

TCC



The newly overhauled tender in Darlington Locomotive Works.

John Wilkinson

No. 60008	Dwight D. Eisenhower	No. 60068	Sir Visto	No. 60119	Patrick Stirling
No. 60013	Dominion of New Zealand	No. 60069	Sceptre	No. 60120	Kittiwake
No. 60014	Silver Link	No. 60070	Gladiator	No. 60121	Silurian
No. 60015	Quicksilver	No. 60072	Sunstar	No. 60122	Curlew
No. 60016	Silver King	No. 60076	Galopin	No. 60123	H.A. Ivatt
No. 60022	Mallard	No. 60077	The White Knight	No. 60125	Scottish Union
No. 60023	Golden Eagle	No. 60078	Night Hawk	No. 60127	Wilson Worsdell
No. 60027	Merlin	No. 60080	Dick Turpin	No. 60128	Bongrace
No. 60037	Hyperion	No. 60094	Colorado	No. 60130	Kestrel
No. 60049	Galtee More	No. 60095	Flamingo	No. 60133	Pommern
No. 60050	Persimmon	No. 60097	Humorist	No. 60136	Alcazar
No. 60051	Blink Bonny	No. 60106	Flying Fox	No. 60137	Redgauntlet
No. 60052	Prince Palatine	No. 60107	Royal Lancer	No. 60140	Balmoral
No. 60053	Sansovino	No. 60108	Gay Crusader	No. 60142	Edward Fletcher
No. 60055	Woolwinder	No. 60111	Enterprise	No. 60143	Sir Walter Scott
No. 60058	Blair Athol	No. 60112	St. Simon	No. 60144	King's Courier
No. 60061	Pretty Polly	No. 60114	W. P. Allen	No. 60151	Midlothian
No. 60065	Knight of Thistle	No. 60117	Bois Roussel	No. 60153	Flamboyant
No. 60066	Merry Hampton	No. 60118	Archibald Sturrock	No. 60162	Saint Johnstoun

Here are some of the names still looking for 'allocations' – there are some surprisingly popular ones still left!

Covenantors' Diary by Sophie James

A big thank you from *Tornado*
To say a huge thank you for all of your support over the past year and especially during the recent overhaul, special Covenantor events have been arranged for this autumn and winter in the Midlands and North East. Unfortunately it was not possible to fit them in between the late running overhaul and our appointment in Scotland as was originally hoped.

While details are yet to be confirmed, there will Covenantor trains on Friday 16th October during *Tornado's* time at the Severn Valley Railway, comprising morning and afternoon round trips from Kidderminster. This is an exclusive opportunity to travel with the locomotive in the SVR's set of LNER teak coaches. There will also be a special event for members of The Founder's Club, The Boiler Club and The 163 Pacifics Club on Thursday 15th October and the *Tornado* Team on Monday 26th October. Other attractions on this picturesque railway include the Kidderminster Railway Museum and The Engine House Visitor and Education Centre at Highley.

In early in January 2016, Covenantors and their guests are also invited to visit *Tornado* at Locomotion: the National Railway Museum at Shildon. As well as

enjoying steam rides behind our A1, there are many historic locomotives and carriages to visit at the terminus of the Stockton & Darlington Railway.

Further information, together with booking details, will be sent out in a mailing later this summer. We hope to see at one or both of these events.
25th Anniversary Annual Convention and Dinner
The A1 Steam Locomotive Trust's 25th Anniversary Annual Convention and Dinner will be held on 3rd October in Darlington - the home of the Trust and No. 60163 *Tornado's* birthplace – at the Mercure King's Hotel Darlington.

The morning's presentations will look at the Trust's achievements over its first 25 years before covering the last year's engineering challenges with *Tornado* (including the intermediate overhaul), our locomotive's operations and take a look forward into 2016. There will also be the first half the progress update on the construction of *Prince of Wales*.

The morning's formalities will be followed by an afternoon at Darlington Locomotive Works, with the opportunity to view the progress of the project to build Gresley class P2 No. 2007 *Prince of Wales* and hear the second part of the P2 presentation. There will be ample opportunity to ask questions during both

presentations. Lunch will be available at Darlington Locomotive Works during the Convention. Covenantors and their guests may purchase tickets for the Convention with or without the option of lunch.

The Mercure Darlington King's Hotel is situated in the centre of Darlington, less than a mile from Darlington Railway Station. A bus service will run between the Mercure King's Hotel and Darlington Locomotive Works after both the first part of the Convention and between the Works and Darlington Railway Station when the Convention concludes at approximately 15:00hrs.

Covenantors and their guests are also invited to join the Board of Trustees at The A1 Steam Locomotive Trust's 25th Anniversary Dinner at the Mercure King's Hotel, Darlington, on the evening of 3rd October. The guest speaker is Nigel Harris, former editor of *Steam Railway* magazine, managing editor of *RAIL* magazine and chairman of Great Central Railways Developments Ltd. While the celebration dinner is expected to be popular, unfortunately numbers are limited, and it is therefore advised that bookings are returned in good time as dinner reservations will be taken on a strictly first come, first served basis.

Booking forms are enclosed. TCC



Tornado starts away after pausing for the fireworks on the Forth Bridge.

MERCHANDISE UPDATE *by Gill Lord*

So following on from my last report, how did we get the stock to our support coach for the start of the 2015 season? Well, I will tell you. A plan had been drawn up ready to stock up at Crewe before the run at the end of May. Janet Hill, who I am sure you will have seen on many of our mainline runs working on the merchandise sales team and at static events, lives in Cheshire and the plan was for Janet to collect the stock from our store in Cannock and take it up to the coach in Crewe ready for the first run. Unfortunately as you already know, our first train did not run from Crewe but from Stirling! Now I could not expect anyone to travel from Cheshire up to Stirling with a car full of stock, so 'Plan B' came into action.

Janet would collect the stock from Cannock one weekend, keep it in her dining room (see photograph) and then drive to Shildon the following weekend to where the support coach had been stabled whilst *Tornado* was being overhauled. Tony Lord and I met her at Shildon and unpacked the boxes from her car on to a trolley – once used at Darlington Railway station in the 1950s by the way. The next step was to locate the coach, which unfortunately was in such a position that we were unable to take the trolley any closer than 50 yards, so muscle power had to be used! Three hours later the stock was safely locked in the storage cupboard, everything in its place and a place for everything! What I should also mention is the evening before in my dining room all the stock had been priced and PLU numbered, the tills had price amendments and new items added to them and the chip and pin machines and the tills fully charged. All the sales brochures 500 in total had all been packed the previous week by another set of volunteers, again sitting in my dining room!

The first runs with *Tornado* in Scotland were spectacular. All the passengers were really enthusiastic and photographers lined just about every station and bridge we passed. The weather was good, sunny on the Saturday but on the second day, Inverness to Brora the rain really did not let up very much at all. That was a really interesting run, not very fast but very pretty scenery. *Tornado* performed beautifully on all three days. One of our merchandisers, Jorge is a very proficient bagpipe player and had taken his pipes with him on these runs and serenaded us quite frequently!

I have just returned from working 'The White Rose' run on 7th July, a really excellent day, sales were good and the atmosphere on the train was quite jolly. A long but very enjoyable day, a 07:15hrs stewards and merchandisers' meeting at King's Cross is not my idea of fun but has to be done! As I write, I am looking forward now to 'The Torbay Express', 'The Silver Jubilee Talisman' and visits to the Nene Valley Railway, the Severn Valley Railway and of course any other opportunity we have working with *Tornado*. Now, I must just think about how we get stock to our next event, 'Plan C' may be?



If you think you can help with any of the logistics, or indeed all things merchandise please do not hesitate to contact me at gill.lord@alsteam.com. **com TCC**



The headboard! Carried by D9009 Alycidon near Arksey on the way to York.

BLIND AUCTION FOR 'THE WHITE ROSE' HEADBOARD

The headboard that D9009 *Alycidon* carried on 'The White Rose' from London King's Cross to York has been placed in a sealed bid 'blind auction'. If you would like to enter this auction, please download and complete the form on the website.

Please note that a reserve of £500 has been placed on the headboard. In the event of a tie, a further run-off sealed bid blind auction will take place for those who submitted the highest bid.

60163

FOR SALE

**SMOKEBOX
NUMBERPLATES**

as carried by No. 60163 *Tornado*

- **20th June 2015** 'The Highland Rambler' – Sterling to Inverness
- **22nd June 2015** 'The Highland Caledonian' – Inverness to Stirling
- **27th June 2015** 'The Border Reivers' - Carlisle - Glasgow- Carlisle
- **5th July 2015** 'The Fife Circle' - Edinburgh return to Edinburgh

Note – 'The Highland Caledonian' plate was carried by *Tornado* for The Prince's Trust special on the Forth Bridge.

Each smokebox numberplate is for sale for £200 including postage & packaging. Please email shop@alsteam.com for more details.

Geoff Griffiths

LETTER FROM CANADA *by Steve Firth*

I am a huge steam enthusiast (and donated in a small way to your campaign to finance the A1) and a heavy engineer (diesel engineering, Mirrlees Blackstone), but I now study in Canada and I do not get back over to the UK very often. Imagine my delight when waiting for my mother at Edinburgh station, *Tornado* should pull in to load for the Forth Bridge trip on the 6th July. I was able to rush over and see her close up and I was thrilled to be able to chat to the driver and fireman about the new boiler and other general topics of interest. Her pause provided me with 10-15 minutes or so of exhilarating inspection and the opportunity to talk to the crew.

I have spoken to the drivers of other steam locomotives and have been close to other engines, but these gentlemen were more approachable and engaging than any I have had the opportunity to meet. They were keen to chat and engage the curious public, and I feel that they need commending for their behaviour. I have hoped and wanted to see the *Tornado* close up since she hit the rails, as I believe



Dave McLaren

Jim Smith (driving) was one of the crew Steve chatted with.

her to represent the single greatest engineering development of the 21st century. Experiencing her so closely and receiving such a positive interaction with the men on the footplate was

overwhelming. It remains the single most remarkable experience of my visit home from Canada. I respectfully ask that you pass on my remarks to the people responsible. **TCC**

'Tornado Team'

The Tornado Team continues to grow with membership now at 65. One of our members, Frey Aither-Brown, recently enrolling as an A1 Covenantor - wonderful news and shows how the Tornado Team is building support for the long term future of the locomotive.

Here at the Trust, we are very aware that the future care of *Tornado* will one day be the responsibility of today's younger generation. We would like to foster a genuine care for and understanding of the engine in a group of young people from an early age in the hope that they will take on the responsibility that we currently bear. In the same way that an older generation of steam enthusiasts watched the original A1s making history and supported the Trust in its objective to build and operate a Peppercorn class A1 pacific steam locomotive, we are now in the unique position of being able to make history for a new generation of steam enthusiasts.

At £25.00 for a year's membership, this would make an ideal birthday or Christmas present for the young *Tornado* fan (aged 5-15 years) in your family and is a very important way of supporting the work of The A1 Steam Locomotive Trust. Members proudly wear their badges to their own *Tornado* Team Days when they can undertake cleaning duties on *Tornado* and spend time on the footplate. They also enjoy lots of other locomotive based activities.

For more information visit www.alsteam.com, email tornadoteam@alsteam.com or call **01325 460163 TCC**



Frey Aither-Brown, recently enrolling as an A1 Covenantor.

P2 ENGINEERING UPDATE by David Elliott

Design & Construction

The extended overhaul of No. 60163 *Tornado* has absorbed our engineering resources, and equally importantly the space we have at Darlington Locomotive Works to erect the frames. With the re-entry into service of *Tornado*, the first job was to clean and repaint the floor in DLW - overhauling an engine that has covered seventy six thousand miles over six years is a very dirty process compared with building a new one! No. 2007 *Prince of Wales's* frames have since been skated back into the middle of the workshop over the track and pit to enable to construction to resume in earnest.

Frame

During *Tornado's* overhaul our external suppliers and contractors have been busy casting and machining a large number of castings for the frames, and design has been progressing on the larger fabricated frame stays. As these are the subject of both a change in manufacturing method (the original items on No. 2001 *Cock o' the North* were castings) and design in order to accommodate air brakes and steam driven air pumps instead of the vacuum brakes fitted to the originals, design justification that the original design worked satisfactorily is not enough. To this end a series of risk assessments are being undertaken to demonstrate that the redesigned components are adequate for their jobs, as part of the overall requirement for any new item of rolling stock that it does not introduce new or increased risk onto the national rail system. There are three main methods to demonstrate adequate performance for a component which in ascending order of difficulty are:

- 1. It is directly equivalent to similar components used in the same way on existing vehicles - this was the basis of certification of much of *Tornado's* structure
- 2. It complies fully with recognised railway design standards or other



Robert Hughes



Ian Yarrow

The frames being skated back into place.

international standards - this for example is the basis for certification of axle design

3. Full design calculations are provided to demonstrate that it can cope with the full spectrum of likely loads with an adequate safety margin - the new cylinder design will need to follow this method.

The conversion from casting to welding does not present a major problem and can be justified by equivalence provided the welds are of the full penetration type and the finished fabrication is stress relieved to remove residual stresses from welding. The basic justification is that provided the steel used is of comparable strength and ductility as the cast material, the plate sections are at least as thick as the equivalent casting sections and the welding is carried out to recognised procedures by coded welders, then the finished fabrication will be at least as strong as the original casting. The modifications for air brake equipment will result in minor alterations in load paths so will require some calculations to demonstrate that maximum loads can be born without permanent deformation or fatigue cracking. This process was used for *Tornado*. The next in a series of meetings with our assessment body (Lloyds Register Rail) is scheduled shortly

to gain their agreement that the designs are acceptable, after which orders will be placed for their manufacture.

In the meantime we have a total of 24 frame stay and hornblock castings which have been or are in the process of being machined which we asked our contractors to store for us until *Tornado* left Darlington Locomotive Works as space there has been at a premium. Using some of the 1,065 driven and fitted bolts and self-locking nuts for frame assembly that have been delivered by Hawk Fasteners at Middlesbrough, these will keep the team busy until the larger fabricated frame stays start to arrive.

Hot rivets provide a very good joint in tension, however as they have to be smaller than the holes they are fitted to in order to insert them, they are not necessarily particularly effective in shear. Cold turned rivets which as their name implies are fitted cold and then have their heads formed cold provide good performance in shear, but as they do not shrink on cooling, are not so good in tension.

With driven bolts, the holes are accurately finished by reaming and the bolts made one-

two thousandths of an inch bigger and pressed in using a hydraulic jack or a very large copper mallet. This provides a very tight joint that works well in shear and by fitting a self-locking nut using a torque wrench, a very predictable tension force is achieved as well. Modern CNC machining has brought the cost of driven bolts down in price to rival rivets. Once the all the frame castings which have been machined are temporarily bolted to the frames, and their final position achieved, the bolt holes will be drilled and reamed to finished size to take the recently delivered driven bolts and Philidas self-locking nuts.



A cast footplate support bracket (left) and the fabricated design (right).

David Elliott



During *Tornado's* overhaul work continued on P2 castings such as the rear dragbox, seen here being machined at Ufone Engineering.



Robert Hughes



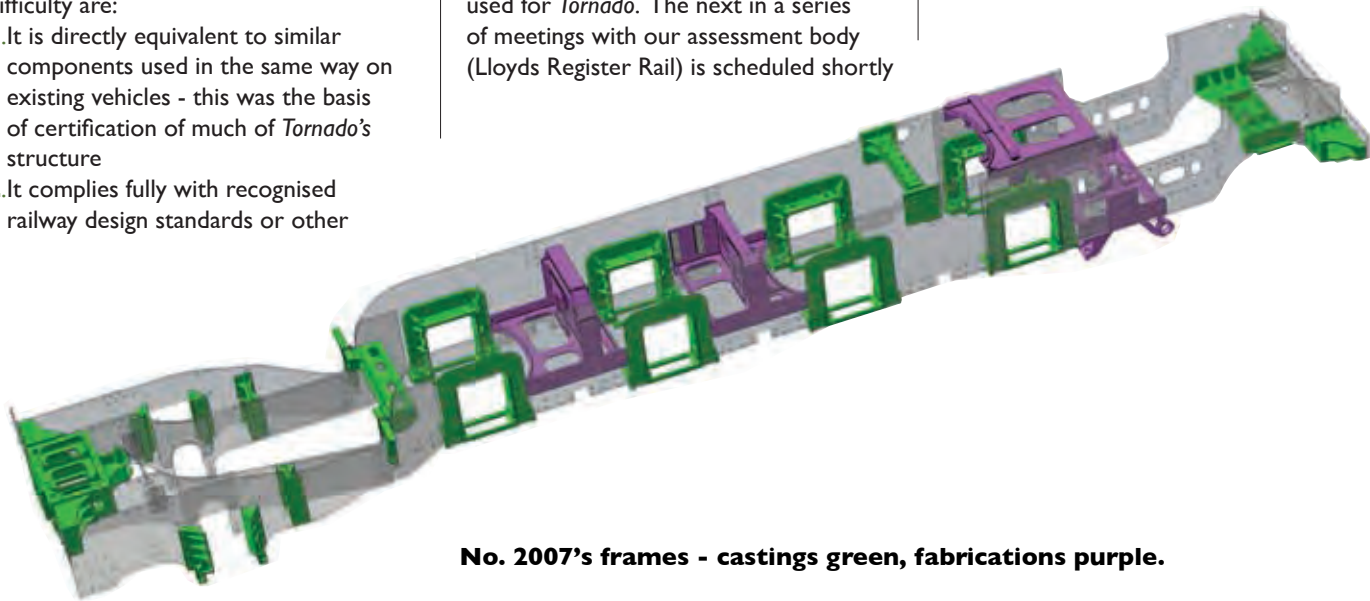
Robert Hughes



Robert Hughes

A series of images showing the assembly of the Cartazzi frames and rear drag box as well as the first Cartazzi horn guide.

all graphics- David Elliott



No. 2007's frames - castings green, fabrications purple.

Ian Matthews and Mick Robinson drill and open out the first of over 1,000 holes.



David Elliott

Wheels & Motion

The casting and proof machining of the eight driving wheels has been completed at William Cook Cast Products (WCCP) of Sheffield, our Principal Sponsor. They will shortly be delivered to Multi-tech Engineering of Ferrybridge where along with the pony and Cartazzi wheels will be finish machined up to the stage when they can be fitted to their axles. The twelve tyres for the engine have arrived in the UK from Ringrollers of South Africa via Railway Wheelset & Brake Ltd their UK representatives. These will be dispatched to our chosen wheelset assembler over the next month.

The order for axles is awaiting completion of the Finite Element Analysis (FEA) study currently being conducted by Mott MacDonald, the engineering consultancy. This study is being undertaken to ensure that the modified crank axle design (which is closely based on that of *Tornado*) will address the known issues with the original design.

All of the cannon and axlebox castings for the engine have been produced by WCCP and are going through the final stages of inspection and checks for dimensional accuracy. An extra set of castings made for *Tornado's* bogie means that a new casting for No. 2007's pony truck cannon box is not required.

During No. 60163 *Tornado's* recent overhaul problems were discovered with some of the roller bearings due water ingress. Fortunately with similar bearings having been ordered and in some bases delivered for No. 2007 it was possible to divert pony and coupled wheelset bearings to *Tornado's* overhaul saving possible delays of up to six months to her return to service. In the meantime replacements have been ordered so as not to impact on *Prince of Wales's* construction schedule.

The original class P2s were fitted with coupling and connecting rods made from a high specification nickel-chrome steel alloy as were the contemporary class A4 and V2 locomotives. This material, whilst very strong and permitting significant reductions in weight, was found to result



The tyres following their delivery to the UK.

in fatigue failures which along with the onset of the Second World War and a shortage of sophisticated alloys caused the LNER to substitute medium carbon steel. This necessitated heavier sections in the rods as can clearly be seen when comparing pre and post war photographs of these locomotives.

Detailed alterations to the design of the class P2 coupling and connecting rods is underway to enable the modern equivalent of medium carbon steel to be used. This is also feeding into the FEA study as it impacts on the reciprocating masses on the crank axle. The rolling chassis for No. 2007 *Prince of Wales* is still on schedule for completion next winter.

Smokebox

Following the announcement of the Gresley Society Trust's sponsorship of the smokebox, we have agreed the details for manufacturing the smokebox door with South Devon Railway Engineering (which took over the former R K Pridham Engineering boiler manufacture and repair business) and an order is about to be placed. The 'D' shape of the door inhibits the method used for *Tornado* which involved starting with a spun tank end and then hand forming the sharp radiused flange on the outside edge. The flat on the top of the door prevents this approach. The chosen method uses a former that is the shape of the back of the door and a large 'D' shaped washer acting as form

tools in South Devon's boiler flanging press.

Another change from *Tornado's* smokebox (including the door) is the use of Cor-Ten steel which has good corrosion resistance when unpainted (as used on unpainted road and rail bridges and the Angel of the North sculpture). Unlike normal steel (where rust forms, expands and flakes off enabling more rust to form) with Cor-Ten the initial rust forms a stable layer and protects the metal underneath. This characteristic derives from small amounts of copper, nickel and chromium alloyed with the steel. Fortunately Cor-Ten behaves in a similar way to mild steel when formed and welded. This will not eliminate corrosion in the hot, smoky and acidic conditions in the smokebox, but should slow it up considerably. The rest of the long lead components for the smokebox (including the Kylchap double chimney) will be ordered in the near future.

Meanwhile detailed manufacturing drawings are being prepared for the footplating and splashers (yes - the P2s do have splashers, but they do not extend above the running plate). This will form a second area of activity at Darlington and will provide a means of support for the smokebox until we have cylinder block and boiler.

Electrical System

Based on the positive operational experience with the electrical system fitted to No. 60163 *Tornado*, design work is underway on a similar system for No. 2007 making use of 3D CAD models to simplify and improve accessibility of the conduits and trunking for the 1/4 miles (2.6 km) of cable used. Provision is also being incorporated for the new ERTMS cab based signalling system with adequate capacity for future electrical demand. The successful mobile phone charger and tracker will be retained. Another area of development is to produce high intensity headlamps fitting into a traditional LNER oil lamp housing incorporating white marker and red tail lamps in the same unit, as the class P2s were not originally fitted with any electrical system. **TCC**

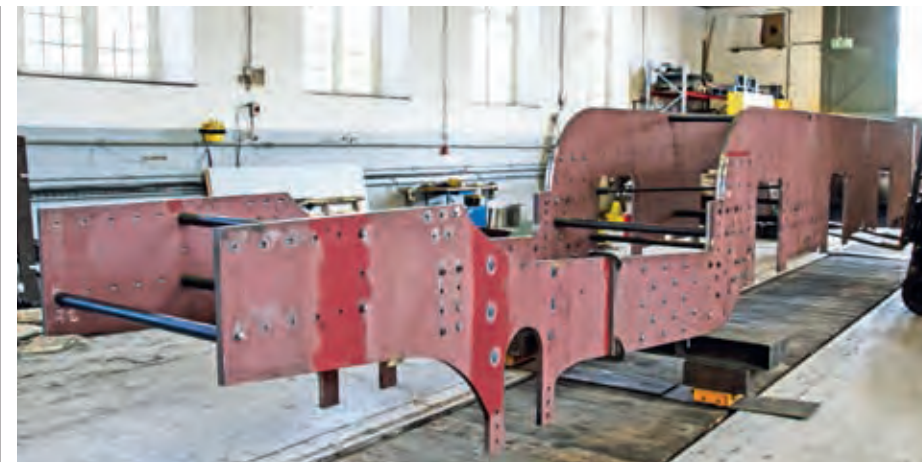
No. 2007 PRINCE OF WALES ONE-THIRD COMPLETE ALREADY!

by Mark Allatt

Our new Gresley class P2 steam locomotive No. 2007 *Prince of Wales* is already over one-third (34%) complete by weight following the delivery of the engine's 12 tyres less than two years since the launch of the project in September 2013. This rapid construction has been fuelled by the project's successful fundraising campaigns which have seen pledges of 38% of the £5m required to complete Britain's most powerful steam locomotive by 2021. In only 18 months since the launch of the project's 'P2 for the price of a pint of beer a week' (£10 per month) regular donation - or covenant - scheme, funds either already donated or pledged by Standing Order have already reached £1.9m.

Construction progress to-date includes:

- Frame plates for engine and tender rolled and profiled
- Engine's frames erected at Darlington Locomotive Works
- All 20 wheels for engine and tender cast; eight 6ft2in driving wheels proof machined; engine's tyres delivered
- All major engine frame stays, brackets and horn blocks cast and machined - 26 in total; further 16 axle box and buffer castings underway
- Roller bearings for all engine and tender wheelsets and engine tyres, axles and crank pins ordered
- Over 1,000 fitted and driven bolts ordered
- Preliminary discussions held with boiler manufacturers and forged



P2 frames on workshop floor 4th August.

foundation ring corners manufactured and machined

- Vampire study into ride and suspension completed and Finite Element Analysis of crank axle underway to ensure locomotive complies with modern standards
- Assessment and notified body appointed to oversee certification
- Nameplates delivered and chime whistle ordered!

The project's use of the latest Computer Aided Design (CAD) technology means that the weight of all of the components now in existence can easily be calculated. The weight of the engine parts now in existence stands at 37.2 tons (39% of an estimated completed empty weight of 96 ton) and the tender at 4.8 tons (17% of an estimated completed empty weight of 28.4

tons) giving a figure of 34% for the whole locomotive by weight.

With No. 60163 *Tornado's* overhaul now complete, our team at Darlington Locomotive Works has now resumed the erection of No. 2007 *Prince of Wales's* frames, fitting the frame stretchers, horn guides and other components manufactured by external contractors over the past few months. The Trust is still hopeful that we will have completed the rolling chassis for No. 2007 *Prince of Wales* next winter and we remain on-track for completion of the new locomotive in 2021. However, to maintain this rate of progress we need to continue to raise in excess of £700,000 per year, which given the nature of the regular donation scheme becomes more challenging as each year passes. **TCC**

Robert Hughes

P2 FUNDRAISING by Mark Allatt

We have recruited 370 members of The Founders Club since its launch at the AISLT convention in September 2013 - potentially worth up to £460,000 with Gift Aid added (closed to new members in July 2014). We launched the 'P2 for a pint' covenant scheme at the first of the P2 Roadshows in London on 8th March 2014 and over 670 people have already signed up, worth over £1m over the duration of the project. If we add in the £120,000 pledged to the dedicated donation

scheme since its launch last July and over 84 members of The Boiler Club so far our total pledged to-date has already passed £1.9m - but there is still a long way to go to reach the magic £5m.

For more information on how you can help to build Britain's most powerful steam locomotive visit **www.p2steam.com**, email **enquiries@p2steam.com** or call **01325 460163**. **TCC**

THE BOILER CLUB

Following the success of The Founders Club, which was designed to get the P2 Project to the point of cutting No. 2007's frames, we have decided to establish The Boiler Club to fund the construction of *Prince of Wales's* boiler. We set an initial target for The Founders Club of at least £100,000 from 100 'Founders' but due to the overwhelming generosity of our supporters we actually raised £460,000 from 370 donors. It is our desire to leave No. 2007 *Prince of Wales* debt free upon completion and therefore our aim is to raise at least £600,000 for The Boiler Club from 300 supporters each donating £2,000 to the project (in up to 40 payments of £50 by standing order).

We are delighted that 84 people have already signed up as members of the Boiler Club.

Special benefits for members of The Boiler Club:

- Opportunity to buy a ticket (seat already reserved) on No. 2007's first main line train
- Reasonable access to No. 2007 at all times
- Opportunity to buy exclusive Boiler Club badge
- Opportunity to join one of the teams building No. 2007
- First choice of other components to sponsor



Chris Ludlow unveils his new painting.

- Special limited edition version (signed/numbered) of the first official painting of No. 2007 *Prince of Wales* with No. 60163 *Tornado*
- Special Boiler Club day with *Tornado*.

For more information visit **www.a1steam.com**, email **enquiries@a1steam.com** or call 01325 460163. Thank you. **TCC**

Rob Morland

EVENTS ATTENDANCE REPORT by Mandy Grant



Mandy Grant

**P2
Roadshow
GCR
20th/21st
June 2015.**

**North Yorkshire Moors Railway Spring Steam Gala
Saturday 18th & Sunday 19th April 2015**

Jorge Gorman, Mark Grant and I travelled up from Leeds to Pickering Station early on the Saturday morning. We arrived at 08:30hrs, where we met up with Peter Chambers and proceeded to set up the stand on Platform 2. Visitors to the stand had the opportunity to sign up as a covenantor for No. 2007, they could also view our P2 '0' Gauge model which was on display and watch a digital presentation documenting some of the construction milestones up to press. We had a folder available to view, which contained up to date information about progress on the project so far and as usual, we handed out lots of information leaflets and chatted to those who visited the stand. There was certainly a lot of interest in the project and some expressed surprise at how quickly it had gathered momentum and were very impressed with the progress so far!

Saturday was reasonably busy, considering that we were not readily accessible for visitors boarding and alighting the scheduled services, which were frequently arriving and departing from Platform 1. Unfortunately, not everyone visiting the railway crossed over to Platform 2 to view the stands which were pitched there. Although the sun shone all day, it was quite cold and rather breezy under the canopy, regular tea runs helped to counter the effects of the cold! At 17:00hrs we packed up the stand, said goodbye to Peter and headed off back to Leeds for some well-earned fish and chips!

Jorge, Mark and I were all up early again on Sunday and travelled to Pickering Station where we met up with Charles Tremeer. The day followed in much the same vein as Saturday, although it was a much quieter day, with far fewer visitors to the railway. Again we spoke to a number of people about No. 2007 and we were pleased that awareness of the project had been raised. We packed up at 16:30hrs, very tired and headed back home.

All in all it was a successful weekend, with several new sign ups and a few donations received. Moreover, lots of new people are now aware of the project and will be following progress with interest, some of whom are considering signing up in the near future!

**Great Central Model Event, Loughborough,
Saturday 20th & Sunday 21st June 2015**

Mark and I travelled to Loughborough with the stand and equipment on Friday evening, ready for the event on Saturday. We arrived at GCR Loughborough Station on Saturday morning and met up with John Rawlinson and Andrew Taylor on Platform 1. We got straight to work setting up the display stand and by 09:30hrs we were ready for business.

The railway operated an intensive steam timetable over the weekend and Platform 1 was very busy on both days. The two 9Fs were certainly pulling in the crowds! There was a considerable amount of interest in the P2 project, with lots of questions asked and leaflets handed out. As with previous events, people went away saying they would find out more about the project when they got home and may consider donating or signing up in the future.

The day was a mixture of sunshine and showers but at least it was reasonably warm and we were under cover, so it didn't really affect us. At 17:00hrs we packed up the stand and Mark and I went back to our hotel. In the evening, we met up with some friends from the A1 Trust and went out for dinner.

On Sunday morning we arrived back at Loughborough Station and met up once again with volunteers Andrew Taylor and John Rawlinson. We set up the stand and display ready for our second day of exhibiting. Although Sunday was busy, it wasn't as full on as it was the previous day and we had several periods where the platform was very quiet. This gave us all a chance to go and have a look around some of the other stands and exhibits which were on the platform close by. These included a railwayana stall, a book stall, a poster stall and in a tent at the end of the platform was a live steam model railway exhibition, which consisted of several layouts with a mixture of gas and coal-fired steam locomotives. At the opposite end of the platform was a museum, with lots of old LNER railwayana items on display.

After one of the last trains of the day it had gone extremely quiet on the platform, several of the other stall holders had left, so we decided to call it a day, pack up and head off home.

Overall the weekend went well, we received several cash donations and as with previous events, we have spoken to lots of people and raised awareness about the project.

Our next event attendance will be at the Aln Valley Railway Model Exhibition Saturday 5th & Sunday 6th September 2015 **TCC**

**THE GRESLEY SOCIETY TRUST SPONSORS THE P2
SMOKEBOX** by Mark Allatt

The Gresley Society Trust, which was established in 1963 to sustain the legacy of Sir Nigel Gresley (and owns the oldest surviving Gresley locomotive, Great Northern Railway class N2 No. 1744), is to sponsor the construction of the distinctive smokebox for *Prince of Wales*. The sponsorship by The Gresley Society Trust includes design changes, rolling and assembly of smokebox barrel; smokebox/boiler and smokebox front rings; smokebox door and most fittings (hinges, dart, etc); cross bar, ribs and crinolines; chimney pattern and machining; fairing around chimney and smoke lifting sheets; and whistle bracket, most handrails and knobs.

David McIntosh, chairman, The Gresley Society Trust, commented, "The class P2s were Sir Nigel Gresley's equivalent of Sir Edward Elgar's 'Enigma Variations' – each of the six built were slightly different to one another but to an original theme. The seventh P2 will complete the development work started in 1934 but unfinished due to other projects and the Second World War. Only ten locomotives designed by Gresley survived dieselisation in the 1960s and The Gresley Society Trust, owners of the oldest surviving Gresley locomotive, is delighted to be able to support the construction of the newest and most powerful – No. 2007 *Prince of Wales*."



Tim Beere

One of the most visually important parts of the smokebox furniture is the dart, machined at Darlington Locomotive Works by none other than James May.

Mark Allatt, chairman, The A1 Steam Locomotive Trust, added, "We are delighted that The Gresley Society Trust is to sponsor No. 2007 *Prince of Wales*'s distinctive front-end, giving the locomotive

its unique 'face' for the first time. We look forward to working closely with the Society throughout the new P2's construction and when it enters main line service in 2021." **TCC**

ABOUT THE GRESLEY SOCIETY TRUST

David Elliott



No. 2007's smokebox.

The Gresley Society Trust, a registered charity, exists to study and celebrate the life and works of Sir Nigel Gresley and the achievements of the London & North Eastern Railway. It aims to educate through a programme of meetings and talks, and by erecting memorials of various kinds at appropriate places. Established in 1963, the Society owns and operates the oldest extant Gresley locomotive in the world, Great Northern Railway class N2 No. 1744. It acts as a flag-bearer for the Society on many heritage railways. The Society's journal, *The Gresley Observer*, is published three times a year for distribution to Society members. It contains articles about the life and work of Sir Nigel Gresley, Great Northern Railway, London & North Eastern Railway, British Railways Eastern and North Eastern Regions, Doncaster Works ('The Plant'). For details of how to join visit **www.gresley.org** or call **01642 781641 TCC**.

THE LNER SOCIETY – FIFTY YEARS YOUNG *by Jonathan Wray*

In 1965, the late Cyril Freezer, editor of *The Railway Modeller*, asked aloud in his magazine if anyone was interested in modelling the LNER. At this time, the Great Western Railway was already established as a popular subject for modelling with the LMS, whose study was being promoted by the LMS Society, not far behind.

Freezer's call did not fall on deaf ears as three LNER enthusiasts, Peter Hall, Jim Johnson and Bob Johnston started writing to each other about the LNER. This led, not long afterwards, to the establishment of the LNER Society. It mirrored the LMS Society in originally being a 'closed' society with membership numbers limited and only offered by invitation, the aim being to help establish a sound academic base. They were successful, as early researchers included



and the audiences were privileged to listen to names such as Prof. Colin Dival of the Institute of Railway Studies and the late Andrew Dow BEM. In May this year, we celebrated our Golden Jubilee in York with a dinner in the former NER Board Room in what is now the Grand Hotel. John Cameron CBE was the guest speaker. The celebrations then moved to the National Railway Museum for, yet another, wide ranging symposium, with topics ranging from the contribution of

members than any time in our history. We long ago gave up our 'closed status' but a couple of years ago decided that we needed to get out and about. Accordingly we breathed new life into our exhibition stand and can now be regularly found at a range of model railway shows, mainly in former LNER territory, and our increased visibility has paid off.

One initiative we have undertaken is the development of an Associate Membership scheme which offers a reduced subscription. This is open to members aged 18 to 30, who are willing to pay by standing order and who receive the society's Journal and Newsletter electronically.

On the subject of the Journal, under the steady hand of our current editor, Darryl Tooley, we now have a society journal whose production quality now matches that of its editorial content and stands comparison with any of the current line society journals. In addition, our range of publications, though currently small, is also developing. We are also in the process of planning a new website and our funding appeal - 50 for 50 - is progressing nicely.

We continue to keep our research credentials up to scratch by working closely with the National Railway Museum in York. For the past several years an increasingly large and enthusiastic group of members have been working, as volunteers, in the NRM archives under the guidance of the Museum's Curatorial staff cataloguing all LNER engineering drawings taken from the main LNER works such as Doncaster and Gorton. The details, such as reference numbers, were recorded on spreadsheets together with an assessment of each drawings physical condition. We are very gratified to see that all this information is now available to the public on the NRM's website.

Our current archival activities concentrate around identifying some of the NRM's over 1.7 million images - not all LNER related - so that should keep us going for a while yet.

Several members of the A1 Steam Locomotive Trust are also members of the LNER Society. We hope some more of you may wish to be. Membership details are available from **secretary@Inersociety.org.uk** or John Smart, 4 Bowling Court, Brighouse, HD6 2RL. For more information visit **www.Inersociety.org.uk**. **TCC**



Glorious LNER - A4 No 2510 Quicksilver hauls the Silver Jubilee through New Barnet, summer 1938 or 1939.

such as names as Nick Campling, Murray Houchin-Hughes and John Edgson (founder of the Isinglass drawings). Other members became well established authors, including Peter Tatlow and Geoffrey Hughes.

The Society's research credentials have been regularly demonstrated over the years by the holding of several symposia looking at various aspects of the LNER. The first was held in 1975 and its nine lectures covered a broad swathe of subjects including, of course, locomotives but also subjects as diverse as advertising and road vehicles. The event was by all accounts a huge success.

Further symposia were organised in 1990 (our Silver Jubilee), 2008 and 2010. Once again the organisers sought to provide a broad spread of knowledgeable and respected speakers,

one of the constituent companies to the development of the LNER; aspects of LNER publicity; the streamliners and *Mallard's* record run; LNER freight wagons; and an insight into life on former LNER rails in BR days.

LNER Society members have featured in the heritage railway movement, and continue to do. Our President is Nick Pigott, Editor of *The Railway Magazine*, and our Chairman is one Mark Allatt. Our immediate Past President was Malcolm Crawley, well known to many readers of *The Communication Cord*, who was heavily involved in the Gresley Society's restoration of its N2 locomotive, together with the saving of the authentic GNR tender now to be found coupled to Stirling Single No. 1.

So what of the LNER Society today? Well I am pleased to say we have more

THE WINDS OF CHANGE THAT BECAME A TORNADO

by David Champion

Part 3 - The Pace Hots Up

While the birth pangs of The A1 Steam Locomotive Trust had caused so much angst in the early days, the gradual evolution from a fledgling project to a fully professional organisation was starting to pay dividends. Despite the false starts I referred to in parts one and two, the project to build the first new build Pacific to operate on Britain's main line since No. 71000 *Duke of Gloucester* in 1954 entered a heightened and exhilarating phase. Sure, there would be immensely more hard work, but leavened with a large dose of sheer enjoyment and fun.

The news given to us at Tyseley in January 1995 that the historic Stockton & Darlington Carriage Works could be *Tornado's* home, all of a sudden gave us two objectives to focus on. While the impetus on *Tornado* had to be kept at full tilt, we had to work with Darlington Borough Council to turn the neglected Hopetown Carriage Works building into a locomotive works. Just as there were many who doubted our ability to build a brand new Pacific, there were many who doubted that this old building would ever be the viable locomotive erection facility we desired. And there were some people that had worked for us in Doncaster that were good people, who would be disappointed in the move to Darlington.

Chief amongst these was Geoff Preece, Doncaster Museum Manager, who had taken a great interest and facilitated our Board Meetings at Doncaster Museum, and Gill Cantley, a volunteer who had worked in the Museum offices manning the A1 hotline, helping with enquiries and liaising with Jim and Fiona Kirkman over in Leicestershire. However, their sterling efforts could not outweigh the lack of progress being made by senior Council officials to find us a site.

The year got off to a hectic start and our work rate dramatically increased. A review of the first six months of 1995 gives an idea of the frenetic activity:

Construction : This was supervised day to day by Bob Meanley from his base at Tyseley. Not only did we have a set of A1 main frames on stands at Tyseley, but a radius had been laboriously filed on every edge by Birmingham based volunteers including Les Golder and Stuart Reid. In addition:

- The bogie and trailing frameplates were cut.
- The A3 tender chassis had been overhauled by Ian Storey (later

- returned to No. 4472 when it was decided to build from scratch)
- 37 patterns for frame stretchers, boiler and firebox supports, crosshead and bogie top centrewere newly manufactured
- All six driving wheels castings were now complete
- Inside cylinder pattern completed and the inside cylinder freshly cast
- Outside cylinder patterns 60% complete
- Front buffer beam, nameplates and numberplate manufactured

Sponsorship : This was the backstage story - the many presentations and meetings with potential sponsors, a number who then agreed to carry out work at advantageous rates. By this stage, high profile companies including British Steel plc and William Cook plc, were carrying out work on very generous terms.

Premises : As all this was going on, many meetings were held with Darlington Council leading to an agreement being signed that spring for the Trust to set up shop in Hopetown Works. A well-publicised public announcement was made to the media at Darlington Railway Museum on 10th March and the A1 Trustees continued working out the legal and physical requirements for the neglected Hopetown building to become the new Darlington Locomotive Works.

Spring Convention : On 8th April 1995 over 100 Covenantors joined us at Tyseley Locomotive Works, Birmingham, to view progress on building *Tornado*. It was the Covenantors first chance to see the locomotive's newly profiled main frames and it was delight to see jaws dropping as they entered the shed, followed by them running hands over the massive 50 feet long and six feet high frames, knocking them with their knuckles, all ultimately followed by wide smiles as they got their first real sense of *Tornado* growing before their eyes. David Elliott and Bob Meanley described construction progress while dear Wreford Voge gave a highly entertaining talk on legally diverting tax from the taxman and into the Trust's coffers, which as usual was received with amusement and applause - some achievement from this talented gentleman on what could be such a dry subject. And in our tradition of a good time being had by all, 0-4-0ST *Henry* gave cab rides and from its open cab back could be observed *Clun Castle* pacing us on a driver training course.

It is also worth reminding ourselves of

how others thought of us in mid-1995... Coverage of the first stages of building *Tornado* was far beyond the circles of the specialist magazines. Major feature articles appeared in *The Times*, *The Daily Telegraph*, *The Daily Mail*, *Birmingham Evening Mail*, *Bank of England Magazine*, *Darlington and Stockton Times* together with national and regional TV and Radio stations. In Michigan USA the *Project 1225* "admired the audacity of the British A1 Steam Locomotive Trust ... and an extinct class of engine is being re-created".

The specialist railway periodicals enthusiastically covered events in depth, summed up by *Railway Magazine* who said "since the project's launch the rate of progress is little short of miraculous". All in all, not a bad result for six month's effort from a bunch of people who also had a living to earn elsewhere.

The Darlington Dream begins to crystallise : The hectic pace continued as 1995 wore on.

On 23rd September 1995 we held our first Convention at Darlington. The Central Hall was packed with over 200 Covenantors. Those arriving by rail had been conveyed to the Central hall on two vintage buses hired from Aycliffe Bus Preservation Society (proper buses mind you, double-deckers with front engines, drivers in a cab and rear platform entrances). The Mayor of Darlington formally welcomed the Trust to the town and said the Trust's approach to it was an opportunity the Council could not miss. He said "the Council was so impressed with the knowledge and dedication of the A1 Trust Directors that I am sure that it will be a long a fruitful path". (In 2008 when *Tornado* first steamed at DLW in front of the world's television cameras, that faith was shown to be firmly placed). The Council was working with the Trust on the detail of how to convert the former Hopetown Lane Carriage Works for our use.

I was honoured to be able to ask Dorothy Mather to become our second Vice-President, to which she replied she hoped she "wouldn't be using a zimmer frame by the time *Tornado* is completed", to which I replied that when I had picked her up to drive to Tyseley at 06:00hrs that January - she was still going strong at 23:00hrs whereas I was exhausted!. (And subsequent history shows her as a picture of elegance on *Tornado's* footplate on that historic first steaming in 2008).

David Elliott related the continuing pace of construction, which at that time



Dorothy Mather and David Champion with the cylinders at Tyseley.

comprised 30% of the locomotive by weight, and importantly, this included core vital components - frames, wheels and cylinders. The vintage buses took us to inspect Hopetown Carriage Works in its forlorn state awaiting restoration. I could see from the faces of some of our supporters that they doubted whether this neglected building with an earthen floor could ever become the erecting shop for a brand new pacific, but we were up for the challenge, and so was Darlington Council.

After the Convention the massive tasks in front of us continued in a carefully planned and executed manner following Rob Morland's computer-based project plan. Our Darlington office was set up in Darlington Railway Museum, manned by new volunteers Dr Peter Rodgers, Bob Devonport, Gordon Best, and Alan Dodgson supplemented by Bill Lovegrove who had been with us since the 1990 launch. Steve Alder also joined the Darlington team to help organise Covenantor events which by then had become a byword in the railway movement for professional content and enjoyment.

Plans for the layout of the Hopetown Carriage Works and the conversion work necessary were agreed with Council officials, who had taken to the job with relish, especially the architects' department. Informal chats had revealed the some of them were very well aware from their formative years what a 'Pacific' was, and in particular what a class A1 Pacific was. Another victory for the Ian Allan ABCs of the 50s and 60s! Next the Council applied for planning permission and

once that was in the bag their officials formulated applications for grants to cover the £300,000 necessary for the building's renovation and conversion.

Manufacturing of large components continued during the latter part of 1995, the outside cylinder patterns were now complete, a host of (only slightly) smaller parts were in the production line. As a measure of the coverage and respect that the project was gaining in professional engineering circles, on 5th December Bob Meanley was asked to address the Institute of Mechanical Engineers, Derby Branch, on the building of *Tornado*. Astonishingly, 160 members attended the talk, their largest attendance ever, 25 more than their previous best lecture. It was followed immediately by requests for him to address other IMechE branches.

It is appropriate here to point out (other projects please note) the massive difference between sitting a massive pair of frame plates on stands held apart by threaded rods, and a set of frames that have been 'erected' as a rigid structure. The Trust shall be forever grateful to Bob and Tyseley Locomotive Works for the massive amount of work that went into the frame components, the forest of specially manufactured parts that must go into a locomotive's frames before they can be riveted and bolted up to form a rigid foundation of the engine. When the Directors of the Ffestiniog Railway were visiting Tyseley they asked to see the work in progress on the A1. Reports said they were 'gobsmacked', and this from people who had restored 14 miles of derelict

railway, built their own narrow gauge locomotives and bored a tunnel through a mountain!

The media coverage became greater and greater quality and increasingly effective. Some terrific atmospheric photographs of the driving wheels being fettled with a grinding wheel captured journalists attention in the national newspapers, and along with other railway magazines, *Steam Classic* noted "significant progress on the construction of *Tornado* now almost seems to be on a monthly basis".

The 1996 Spring Convention was again held at Tyseley, and there was a little surprise for the Covenantors in store. We held the event outdoors next to a very large tarpaulin with three big humps in it. Over the buffet lunch, a number of Covenantors casually rested their lunch plates innocently on one or other of the big humps, innocently unaware of what lurked underneath. After lunch we reviewed progress and during the engineering update I asked Dorothy to help me unveil a surprise for the Covenantors – as we drew back the tarpaulin there were gasps of delight from the crowd as the humps were revealed to be three brand new A1 cylinder castings!

The management team was so busy talking to Covenantors and industry guests that we missed lunch. Our wives remedied this by sallying forth to the shops and returning with a picnic comprising white Rioja, Camembert and baguettes to enjoy in the warm sun surrounded by steam engines. Life was good.

In September 1996 we received the welcome news that Darlington Council's grant applications had born fruit. The package was made up of £100,000 from the National Heritage memorial Fund, £150,000 from the European Regional Development Fund, and most generously in those cash straitened days £50,000 from Darlington Council. A press conference was held at Darlington Railway Museum and I had the honour of standing on *Locomotion No. 1* with Stuart Palmer and Council officials as Dorothy Mather was formally presented with the keys to Hopetown Carriage Works. My mind went back to the days in the 1960s when as young boys my brother and I would go on trainspotting expeditions to Darlington Bank Top Station and gaze in awe at George Stephenson's *Locomotion No. 1* then plinthed there. Never could I have thought to be allowed to mount this hallowed artefact from the dawn of the railways.

That was part of the fun side of this wonderful project at the time. As many of our meetings were now taking place at Darlington it was a pleasure for Gillian

and me to offer accommodation to fellow Trustees who were travelling a long way to attend meetings. These visits usually degenerated into barbecues and bonfires in the woods accompanied by rather too much wine and song, over which a veil is probably best discretely drawn. The firework displays at some of these evenings were not something the Health and Safety Executive would approve of, or that the Chairman - past or present - should be proud of. But it was good fun at the time.

The September Convention was again at Darlington and this time the vintage buses took us to the Timothy Hackworth Museum at Shildon and it was particularly pleasing to see that Geoff Preece, Doncaster's Museum Manager had joined us for the day. A number of Covenantors stayed overnight and enjoyed an organised trip to the South Tynedale narrow gauge railway at Alston.

Mark's high profile campaign paid another dividend when Jenny McCartney of *The Sunday Telegraph* interviewed Peter Rodgers and myself at Darlington and wrote a terrific full page colour feature that landed on doorsteps on 22nd December giving it maximum impact over Christmas. The only downside was that the photograph purporting to show me with Peter's '0' gauge A1 model also included his right hand only, which had the effect of making me look as if I was performing some impossible contortions and should be joining a circus. On a more serious note, Jenny made a great point on the appropriateness of the motto on one of *Tornado*'s nameplates - 'We Rise To Our Obstacles' – she thought this perfectly suited the Trust's 'can do' attitude.

January 1997 got off to the long awaited start on the Hopetown Lane Carriage Works renovation. It was an enormous task. First the entire floor of the Grade

II listed building had to be excavated by over a metre to give headroom for the locomotive. It should be remembered that as originally built, it only had to accommodate low roofed early Victorian coaches. New windows were fitted together with new exterior doors, the inspection pit was created and the bridge section rails were inset in the floor.

Mark launched the Dedicated Covenant scheme at this time, which was to have such success in financing parts for the locomotive – and that scheme is working equally well for No. 2007 *Prince of Wales*.

More excitement was to come with the arrangement for *Tornado*'s frames to be exhibited at the National Railway Museum for four weeks. And best of all, it was to travel there by rail. Bob played another one of his blinders by arranging for freight carrier EWS to transport the frames from Tyseley to York where we were to have the Spring Convention.

On 6th March 1997 Bob and his team lowered and fixed the middle cylinder into the frames and the process of making the frames into a rigid unit was complete after three years intensive work. Maroon class 37 No. 37332 hauled the frames to the NRM at York on 12th March with a number of people en-route who were 'in the know' waiting on overbridges to see their first sight of a new A1 making its way to LNER territory.

Three days later on 15th March 300 Covenantors and guests converged on the NRM for the Spring Convention. *Tornado* was by now really starting to look the part of a main line express locomotive as Andrew Scott, Head of the Railway Museum welcomed the Trust. Andrew talked about the importance of what we were doing, and a leading railway journalist said, "the A1 project is the pinnacle of the steam movement", while one of the

industrialists attending as a guest enthused about the quality of the middle cylinder and confirmed it as an example of world class engineering. Covenantors also played their part at this event, bringing interested friends, many of whom signed up on the day bringing the number of covenants to over 1,000.

After lunch, John Wigston, Railway Artist extraordinaire, who had been with the project since day one, gave an illustrated lecture on how he constructed the inspirational painting of *Tornado* surrounded by her A1 predecessors in York Roundhouse (now the NRM). We were treated to a demonstration of his unique skill of being able to draw freehand a perfect circle as the starting point for drawing a driving wheel, and then showed how it would look in a three-quarters view by then drawing freehand a perfect ellipse.

As the largest event to date there were so many people to talk to that by late afternoon I had lost my voice, and still hadn't had time to have a proper look at *Tornado*'s frames for myself. That is, until everyone had gone and I sneaked up to the balcony to look down on those beautiful frames complete with middle cylinder now permanently fitted. I couldn't resist a huge grin spreading right across my face as I reflected on the last time we came to York - not really all that long ago - when Ian Storey, Mike Wilson, Stuart Palmer and myself came on 17th November 1990 to launch the project to a sceptical world, armed with nothing more than a well thought-out business plan in the briefcase. Now here we were back with our budding locomotive.

The secret of how this astonishing progress was achieved by a small team... is that it wasn't a small team. The ten or so people at the 'sharp end' had the combined strength of the Covenantors and their production of a regular stream of income to give us the credibility to walk into the boardrooms of British industry. Financial credibility coupled with a professional approach encouraged leading businesses to quote us concessionary terms for work. There was a wonderful alchemy in this, as for every £1 a Covenantor gave to the Trust we were able to turn it into £3 worth of metal.

What you can achieve with a large number of people giving a little on a regular basis is astounding.

And it was to get better. My parting words to the Covenantors at York was that next time we all met in September it would be when *Tornado* came to her new home in the new Darlington Locomotive Works. I promised we would have 'a bit of a do'... **TCC**



Dorothy Mather accepts the keys to Hopetown Carriage Works.

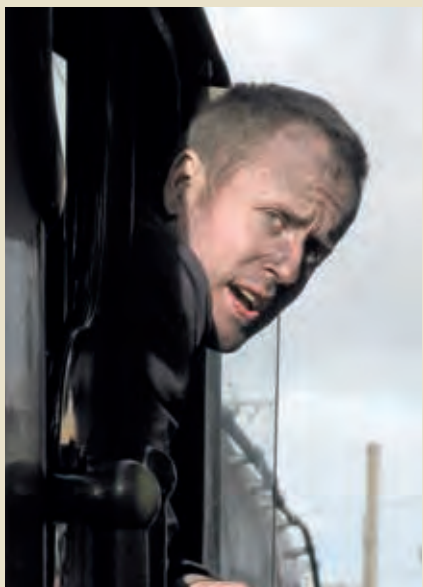
PROFILE – GRAEME BUNKER by Graham Langer

Despite being the youngest Trustee, a title held for around 15 years, Graeme brings a lot of experience to the Trust, something he did both before completion and now *Tornado* is running.

Born in Hitchin, an important LNER town in the days of steam, Graeme grew up in Hertfordshire with his parents and sister remaining in education until he was 17. He then entered the workforce but not in the railway, but in the retail sector where he spent the next five years gaining several lower and middle management positions. However, the railway was still an interest and drew professional attention in 1995.

Graeme's interest in the railway was fostered by his father who grew up with the Nine Elms turntable at the end of his road. After following steam across the country in his formative years the interest was rekindled strongly with a change of career path. In 1995 Graeme joined the soon to be privatised Railtrack as a signalman in the East Riding of Yorkshire. Although technically a step down strong advice from a family friend meant that Graeme spent three years in front line operations and learned how the railway 'works'. "It was a very interesting time and the knowledge gained then has been important and useful to me every day since then."

In 1998 he joined the business development section of Railtrack



Graeme on the footplate of *Union of South Africa* during the running of the Trust's 'Talisman' in 2008.

working on projects such as the Leeds 1st rebuilding of that city's station and track environment, upgrades to the East Coast Main Line and routes in and around Yorkshire and across the Pennines. What he then describes as a "Friday afternoon project that just grew and grew" was the introduction of the new Virgin Voyager fleet across the UK. This led to further responsibility and the role of Deputy General Manager for the Route

Modernisation that went with the new trains for Cross Country. With successful delivery and two National Rail Awards won Graeme then moved to Richard Branson's Virgin leading the day to day operation and planning functions for both Cross Country and West Coast.

At the same time Graeme had become more hands on with steam and volunteered at the NYMR and joined the National Railway Museum's main line support crew working with Ray Towell and the team taking No. 4771 *Green Arrow* across the UK. This led to an introduction to West Coast Railways where in 2002 Graeme passed out as a main line fireman working in all four corners of the UK with some excellent highlights including A4s on the whole of the East Coast, taking *City of Truro* to Plymouth and firing a Stanier Duchess from Crewe to Carlisle and back on the same day remarking that a Duchess is a lot heavier on coal than an A1!!

He also had the honour of emptying the tender of *King Edward I* on a firing turn to Shrewsbury. Anyone who has seen Graeme on the footplate will have noticed the big smile and usually the black face!

In the main industry Graeme's career developed and he has since held the position of Regional Director Western at the Strategic Rail Authority and Managing Director of Arriva Trains Wales. More recently he has been Chief Executive of rail tour promoter Steam Dreams and is now developing further his own consultancy business that includes PWC, Deutsche Bank, the BBC and Serco amongst its clients.

Graeme continues to retain overall responsibility for *Tornado's* operations and day to day maintenance and cover the Commercial and Operational brief on the P2. **TCC**



Graeme on the footplate of *Duchess of Sutherland* during the running of the Trust's 'Talisman' in 2005.



Graeme during his first firing 'turn' on *Tornado*.

FROM THE ARCHIVES by Graham Langer



Tornado's frames are inspected by Covenantors during 2005.

- **Summer 1995** – Manufacture of the middle cylinder was followed by the casting of the left and right-hand cylinders in August. Each cylinder casting was produced from around 30 individual hand carved patterns and core boxes, weighing over one ton for each cylinder. The patterns were supplied on advantageous terms by Kings Heath Patterns of Cotteridge, Birmingham, the leading supplier of specialist one-off intricate patterns, and each took around four months to produce.
- **Summer 2000** – Machining of the roller bearing axle cannon boxes for the intermediate and trailing driving wheelsets was also completed at Ufone. The smokebox was removed from the locomotive following its trial fit. This was to enable further work to be done including welding the stiffening plates into the bottom of the box, fitting the blast pipe and steam pipe extensions, fitting the chimney and liner assembly and tidying up the remaining platework.
- **Summer 2005** – Headline news in *Top Link* No. 12 was that William Cook Cast Products Ltd, the Trust's principal sponsor, had agreed to fund the building of the tender and Ian Howitt Ltd had

been contracted to make the tender frames. The Trust had run a very successful 'Talisman' with *Duchess of Sutherland*, new recruit Graeme Bunker doing much of the firing! In other news, work progressed in Darlington with much of the locomotive's footplating assembled and more of the motion machined by Ufone Engineering.

● **Summer 2010** – The early summer had started well for *Tornado* but problems with firebox stays meant she had to come out of traffic in May

for urgent attention to replace those affected. Rapid work by the engineering team ensured she was fit again to operate 'The Border Raider' in June and set a new record for the ascent of Shap with a 13 coach train! In addition to this heroic run, *Tornado* hauled a succession of 'Cathedrals Expresses' to numerous new destinations and visited the Swanage Railway as well. In other news we were able to report good progress being made on the support coach with the first coats of carmine and cream paint appearing on it. **TCC**



The coach was already looking better, sporting the carmine and cream livery it now carries.

The A I 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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THE A I STEAM LOCOMOTIVE TRUST CONTACTS

President **Dorothy Mather**

Vice Presidents **Peter Townend and David Champion** (david.champion@aisteam.com)

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- Graeme Bunker** Operations (graeme.bunker@aisteam.com)
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- Huw Parker** Project Management (huw.parker@aisteam.com)
- Tim Beere** PR & Marketing (tim.beere@aisteam.com)
- Sophie James** Sponsorship & Covenantor Care (sophie.james@aisteam.com)
- Graham Nicholas** Quality & Certification (graham.nicholas@aisteam.com)

Editor

Graham Langer (graham.langer@aisteam.com)

Picture Editor

Tony Watson (tony.watson@aisteam.com)

Design

Kevin Lumb (kevin@limegroveprintanddesign.co.uk)

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- The A I Steam Locomotive Trust, Darlington Locomotive Works, Hopetown Lane, Darlington DL3 6RQ
- e-mail: enquiries@aisteam.com ● website: www.aisteam.com

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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