Blackpool illuminations! Tornado prepares to leave the town with the returning 'Illuminat' on 2nd November.
**2019 CONVENTION**

by Graham Langer

The A1 Steam Locomotive Trust's 2019 Convention was again held at the Kings Hotel in Darlington and was, as ever, very well supported with over 180 people able to attend. President of the Trust, David Champion, opened proceedings, welcoming Covenanters and introducing the team before announcing the appointment of Steve Davies, MBE, to the board as a new Trustee (see separate news item on page 6). Huw Parker then updated the assembled company with a review of recent tours and activity with Tomo. Despite some small challenges it has proved to have been a successful summer season for No. 60163 and he highlighted the continuing close relationship with the crew of HMS Prince of Wales, some of whom have been able to join us on ‘The Aberdeen’ this year. The year started at the Nene Valley Railway and following Tomo's resumption of main line tours the locomotive performed well, despite the vagaries of operating on Network Rail which threw up more than a few challenges during the season. Graeme Bunker-James then conducted a commercial review of tour operations, emphasising the usefulness of repeat itineraries such as 'The North Briton' and 'The Aberdeen' and concluding that while the latter was a great success the former needed further refinement. We managed to include some surprises during the year, not least of which was 'The Mad Hatter' which proved to be a real crowd-puller and we will try to ensure that we continue to break new ground with future tours. A big development on the tours side has been the opening of our own booking office in Darlington. Graeme thanked UK Railtours for their help and cooperation in the past and predicted that running this facility ‘in house’ would be cost effective and further enhanced by a new ticketing system and further website developments. Graeme took the opportunity to announce some new tours for 2020 as part of a programme that we continue to gather good press coverage for both Tomo and Prince of Wales, as well as the on-going development of our own websites and social media platforms, the production of our own tour brochures and a lot of direct marketing. Trust events have featured our annual Convention, a Spring Day Out for Covenanters, some heritage railway visits and for the P2, numerous Roadshows and open days at Darlington. In addition to targeted mailings and eshots, we have continued to deliver The Communication Cord quarterly and the monthly bulletin The Tornado Telegraph and The Mk3a Messenger.

Looking to the future Mark noted that we have 1000 Covenanters generating an annual income of over £170,000 but insisted that we cannot afford to be complacent and need to keep adding new Covenanters, a key ingredient of our funding plan running into 890 lines and several feet over. We have over £5m for Tornado's engineering aspect of the construction ‘The Founders Club’ had raised over £2m, the Mk3a Club and 'The Cylinder Club' fully subscribed, the boiler and motion clubs well on their way and Dedicated Donations having raised around £400,000. The project now has around 920 signed-up Covenantors but if we are to get the work over the line in the next couple of years we may have to look at other sources of funding such as a bond issue or grants. In conclusion over £2.1m has been spent, £2.7m raised and £3.4m pledged of the required £5m total needed but this can be accelerated if Covenanters bring a friend to a P2 Roadshow and enable them to, help complete ‘The Motion Club’ and sign up to ‘The Tender Club’. David Elliott now took the floor for his usual ‘Tour de Force’ concerning the engineering aspect of the construction of No. 2007. A lot has been achieved in the past year given that we maintain a project plan running into 890 lines and several feet long when printed! The plan presently shows that substantial completion by the end of 2021 is theoretically possible but requires access to resource levels which are presently not available, this, coupled with the fundraising profile suggests that completion by the end of 2022 is more realistic. In the past twelve months the boiler has been ordered, the tender frames and tank build are well advanced, coupled and connecting rod manufacture is under way, the engine electrical trunking design is almost complete and the steam and air pipework is under way. Many parts for brakes and spring gear have been delivered and fitting, casting and machining are progressing. The design of the pony truck is complete and it is now out for quotation, the tender wheelsets are almost complete, there has been further detailed design.
of fittings and paperwork to support shop floor activity which has included fitting the handrails dismantling the boiler cladding.

Of the targets set at the 2018 Convention, this is the current status:
- Pony truck complete – design complete, ready for manufacture
- Boiler ordered – ordered for delivery in July 2021
- Tender tank and frames substantially complete – tank 30%, frames 60%
- Electrical trunking designed – approximately 85%
- Two air pumps overhauled for fitment – done, one lent to Tornado
- Pipework layout designed – around 60%
- Heavy motion fully delivered, coupling rods fitted
- Cylinder block fabrication nearing completion
- Valve gear in manufacture

David then conducted a detailed reprise of much of the work that has been carried out on No. 2007 since 2007 including illustrations of a lot of the CAD design and Finite Element Analysis going into producing finished components, even including a movie of the workings of the internals of one of the cab boxes. Following an appraisal of the current state of the electrical installation (pun intended!) by Rob Morland and Alan Parkin and an update on the construction of the tender David gave way to Chris Walker to run through the Trust’s financial position. The full engineering and electrical reports can be found on pages 24 to 29.

Chris was able to report that the financial state of Tornado operations had improved significantly since the locomotive had returned to traffic and that the P2 was doing well. Howe Parker and Mark Grant now took the opportunity to pay tribute to the volunteers and support crew who have made the railtour operation so successful.

Covenants assemble with No. 2007 at Darlington Locomotive Works on the afternoon of the 2019 Convention.

EDITORIAL by Graham Langer

After a successful season with Tornado on the main line I am sure I am not the only one who is relieved that we have haven’t been thrown too many ‘curve balls’ this year, even though the big railway continues to produce some interesting challenges, not the least of which was the failure of the Class 90 on the first leg of ‘The North American Experience’. Report on this and the Tornado locomotive was ‘just seven years older than No. 6163?!” The engineering side of our main line operations has been bolstered with fitter Ian Greening joining Richard Pearson in looking after Tornado while she is away from ‘home’. The team running our railtour are getting into their stride and developing an exciting variety of tours for next year, involving new starting and finishing points as well as new well travelled routes. Please make sure you join us to experience the joy of travelling with the locomotive you helped build, remember, vouchers are available for our tours, the perfect Christmas present for those close to you to enjoy.

In addition to Ian, I’d like to welcome Steve Davies to the Board. Steve probably needs little introduction and his appointment is covered in detail on page 4, I am sure he will bring a new dynamic to the Trust. The office team has been further strengthened by the arrival of Amelia Smith as Leigh’s assistant and all these additions to the team clearly show that the Trust means business and expects to grow. Obviously we are focused on the completion of No. 2007 in the next couple of years but some of us are looking beyond to 2025 and the bicentenary of the Stockton & Darlington Railway. With funding available our position in the ‘Heritage Quarter’ of Darlington will place the Trust centre stage when this great anniversary is commemorated and we will be proud to play a role in the celebrations.

Thinking of Christmas, please remember that numerous Dedicated Donation parts are available to sponsor. The RDM programme has raised a huge amount of money towards the construction of Sir John’s P2 and I am sure the team would be happy to arrange one as a present for a loved one or a friend this year. No doubt a list of new components will be released. No 2007 continues to make amazing progress, especially the tender which is under construction at North Runcton, so much so that the Tender Club is struggling to keep up with the rate of work so please ensure it is well supported. The Motion Club, however, is just 19 places from completion and it would be a terrific way to end the year if we could close that club as well. 

RAF 25TH ANNIVERSARY DINNER – Thursday 9th January 2020

We are pleased to announce a special dinner to mark the 25 years of affiliation between The A1 Steam Locomotive Trust and the Royal Air Force. Join Trustees, supporters, RAF personnel and VIP guests to commemorate this special landmark.

The Anniversary dinner will take place in the Sovereign’s Room at The RAF Club in London, which celebrated its centenary last year. After pre-dinner drinks we will take our seats for a fabulous meal prepared by the Club’s award winning chefs. We are delighted to announce that our after-dinner speaker is writer and TV presenter Jonathan Glancey, a long-time friend of the Trust and author of the definitive work on the locomotive’s construction. He is also the author of books on the Spitfire, Harrier and Concorde as well as seminal works on world-wide steam locomotion, architecture and travel. It is sure to be an interesting discussion on both aircraft and steam locomotive lines.

Various events have taken place with the two organisations in the last 25 years. When it was decided that the new Peppercorn class A1 would be named Tornado in honour of the crews and aircraft flying in the first Gulf War a small card of affixation was the preparation and painting of the nameplates for the new locomotive and the affixing of the crest for RAF Cossitmore and the Trust. The author of books on the Spitfire, Harrier and Concorde as well as seminars works on world-wide steam locomotion, architecture and travel. It is sure to be an interesting discussion on both aircraft and steam locomotive lines.

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RAF Marham as the last base of the Tornado Force and its crest is now carried on the right hand smoke deflector. With RAF Marham now the home of the UK’s F35 Lightning Force for both the Royal Air Force and the Fleet Air Arm, soon to embark on HMS Prince of Wales (affiliated to our second new steam locomotive Gresley class P2 No. 2007 Prince of Wales), our continued affiliation with the RAF will be a critical relationship moving forward. Working together it is not only an opportunity to bring pleasure to the public, friends and family it is also a chance to reach out to the next generation through STEM initiatives to inspire future engineers and operators crucial to both of our organisations.

Prices for this unique event are £65 for Covenanters or Club supporters, £75 for the general public. Tickets are available to Trust supporters, RAF Club members, the general public and their guests. Call 01325 460163 for further details and to book. Space is limited so please ensure to book early.

We look forward to welcoming you to this celebration.

NB – Please note at time of booking dietary requirements must be provided and please bring photo ID (e.g Driving Licence or Passport) with you on the evening.

Members of the RAF with Tornado’s original nameplates at Tyseley in 1995.
NEW TRUSTEE APPOINTED TO THE BOARD by Graham Langer

Steve Davies, MBE, joins board of Trustees of the A1 Steam Locomotive Trust.

The A1 Steam Locomotive Trust is delighted to announce that Steve Davies MBE has been appointed to its Board of Trustees. A former Colonel in the British Army, Steve has been a lifelong railway enthusiast, and is involved in a significant number of heritage railway projects both on a professional and voluntary basis. His Army career saw him serve in a wide variety of countries, many on operations. He rose to become the Commanding Officer of his Regiment.

Steve enjoyed two tours in the Ministry of Defence in London engaged at the military/political strategic level, and his final military appointment was as Chief of Staff of a Division with responsibility for military planning across almost half of the UK. It was whilst on secondment to the Republic of Sierra Leone Armed Forces that he exerted his personal initiative to create the Country’s National Railway Museum, in close cooperation with His Excellency President Kabbah, which continues to thrive today and with which he remains closely associated as President of the British charity The Friends of The Sierra Leone National Railway Museum.

On retirement from the Army, Steve subsequently served as Director of the Museum of Science and Industry in Manchester – site of the world’s oldest surviving railway terminus (circa 1830) – then as Director of the National Railway Museum in York, during which time he devised, negotiated and implemented the repatriation of class A4 Pacifics No. 4488 Dominion of Canada and No. 4489 Dominion of Canada from North America to take part in an Award-winning exhibition marking the 75th anniversary of No. 4488 Mallard achieving the World Record for Steam Traction of 126 mph.

Steve, who lives in North Yorkshire, is the Founder and Managing Director of The International Railway Heritage Consultancy Limited which provides a one-stop-shop for railway heritage organisations internationally in order that they might access the skills they need to support their respective operations. Amongst its many projects Steve’s company is supporting – Pro Bono – the extension of the Bala Lake Railway and was heavily involved in planning and delivering a Channel 4 TV programme focusing on carriage restoration. He has also just returned from an advisory visit to Nigeria to report on improving the Railway Museum in Lagos, including an assessment of the potential to return British-built ‘River Class’ 2-8-2s to working order for main line use. Steve also recently visited DB Meiningen as a member of the team negotiating the purchase of two new boilers for The A1 Steam Locomotive Trust.

Commenting on his appointment, Steve said, “It’s a great honour to be joining the Board of The A1 Steam Locomotive Trust. I’ve worked closely with the organisation for many years and was delighted to welcome Their Royal Highnesses, The Prince of Wales and The Duchess of Cornwall on board The Royal Train to the Museum of Science & Industry in Manchester, hauled by Tornado, on my final day as Director. I look forward to working with the other Trustees, Staff, Volunteers and Supporters to deliver on the Trust’s promises – keeping No. 60163 Tornado operating successfully on the main line, completing the construction of No. 2007 Prince of Wales, starting work on Grosmont class V4 No. 3403, and expanding the Trust’s base in Darlington. I have always been attracted to exciting, ambitious and very professionally delivered projects and organisations, and in that respect I know I am going to feel very much at home with The A1 Steam Locomotive Trust.”

The Board of Trustees, The A1 Steam Locomotive Trust, added, “We are delighted to welcome Steve Davies MBE as a Trustee. Steve is an internationally recognised and respected leader in the world of heritage railways and we are honoured that he has agreed to serve as a Trustee of The A1 Steam Locomotive Trust. Steve’s vast knowledge and experience will help us to continue to transform our organisation as we move towards the completion and operation of our second new main line steam locomotive, the commencement of the project to build our third, and the development of our facilities in Darlington.”

A1 ENGINEERING REPORT by David Elliott

Tornado has continued to put in some excellent performances on the summer ‘Aberdonian’ trains and subsequent English tours. Apart from routine examinations, there have been a few out of course repairs. During the northbound ‘North Briton’ train, the front air pump was noted to be “double beating” which whilst still producing air, suggested that there was a problem with its internal valve gear. To prevent possible damage to the pump, the rear pump was used on the return journey. The front pump was changed for an overhauled spare during the following week at the NRM at York. The ‘old’ one has since been returned to Meiningen for overhaul.

Whilst at Barrow Hill after ‘The Pennine Explorer’ the opportunity was taken to remove the cylinder covers to ascertain whether the liners are in a suitable condition to see us through to the overhaul in 2020/21. The good news is that they are generally in good condition and less than half worn. This has removed a significant unknown for the forthcoming winter maintenance programme.

Meanwhile work is in hand to produce a detailed plan for the winter maintenance of both Tornado and the support coach which is scheduled to be carried out at Leeming Bar on the Wensleydale Railway.

The refurbished air pump which was fitted to Tornado after ‘The North Briton’.
The last of our 2019 ‘Aberdonian’ Series ran on Saturday 7th September. Since arriving in Scotland, Tornado had been stabled at the Scottish Railway Preservation Society Headquarters at Bo’ness and we are indebted to both staff and volunteers for their support and assistance in helping to ensure the locomotive was maintained and serviced throughout our stay.

The Edinburgh-Aберdeen route is certainly spectacular and crossing the Forth Railway Bridge early after departing Edinburgh sets the scene for the wonderful scenery to come. Despite not being able to cross the Tay Bridge due to Tornado’s axle loading weight, the alternative route via Perth and Invergowrie offers stunning views of the Firth of Tay and its long bridge spanning the estuary. Beyond Dundee, the railway line is rarely far from the coast and the scenery just continues to inspire. There have been some outstanding photographs and videos of Tornado working hard throughout the route and we are already looking forward to bringing Tornado back to Scotland next summer.

At Aberdeen, we have been equally well supported by the volunteers of the Ferryhill Railway Heritage Trust. Our frequent visits to Aberdeen this summer have enabled them to fine tune the servicing and turning of the locomotive at Ferryhill. Watering using a vintage Green Goddess fire engine and turning Tornado on their refurbished turntable has become a popular spectator activity, with many passengers making their way from the station to watch.

On our last run, a new batch of coal had left the fire full of ash and clinker, leading to a decision to bail out what was left and relight it in preparation for the return run. With volunteer help, the ash and clinker were removed and taken away by wheelbarrow and dry wood scavenged to relight the fire. Despite the additional work involved at Ferryhill, Tornado was ready in good time to set back into the station and whilst the departure was slightly delayed, we arrived back into Edinburgh Waverley a few minutes early. That evening, Tornado and her support coach were stabled at Polmont Depot at Joppa, before heading South to Doncaster the next day.

With skies clearing Tornado crosses the Arbroath Basin Viaduct.

Above: Tornado pictured here at Arbroath - approaching and getting ready to leave the station.

Glyn Lewis

Above centre , and above: Tornado passes Newmill.
Tornado remained at Doncaster Roberts Road after her light engine move from Scotland to run 'The North Briton' at the end of September. Three days ahead of the tour, her Support Crew began to prepare the engine. After clearing the remains of the previous fire from the grate, the fire was lit and left to slowly warm the boiler overnight. Throughout the second day, the locomotive was cleaned and inspected ahead of the fitness to run exam on the third day. Despite exceptionally damp weather over the two days, work on the engine and support coach were finally finished and the exam completed.

The locomotive was booked to take the train north from Doncaster to Carlisle and on to Tyne Yard, with a fast leg from London hauled by an electric locomotive. We were ready in good time at Doncaster and moved the locomotive and support coach over to the station to await the arrival of the train from London. Unfortunately, it was soon evident that the Class 90 electric had developed a fault, eventually arriving over 90 minutes late at Doncaster. After some brief fault finding, the 90 was declared a failure and after a frustrating delay, we were able to return to the station smartly to finally finish and the exam completed.

Service at Upperby Yard could best be described as being more like an F1 pit stop with everyone focussed on turning the locomotive round in as short a time as possible. The original time allocated was already tight, but we shaved a few minutes off that and were able to return to the station smartly to depart again for Tyne Yard 95 minutes late. Unfortunately, and despite our best endeavours, we ended up following a local and despite our best endeavours, we ended up following a local train on its journey back to London resulting in a very late arrival. We were clearly out of favour with the railway gods that weekend!
Tornado delivered a ‘spirited’ performance over Ais Gill for her final run over the S&C this year, with a lively departure from Doncaster and an encouraging start away to Settle Junction after the stop for water at Hellifield. Despite the late departures from Doncaster and Hellifield, the train arrived outside Carlisle ten minutes early and only increased congestion in the station area due to ECML diversions preventing an early arrival into Carlisle.

Another swift servicing period followed, not quite the ‘North Briton’ pitstop of the previous weekend as the condition of the fire demanded extra attention from Support Crew members to ensure a good start for the return leg. Carlisle station was exceptionally busy, which delayed the southbound departure by 18 minutes and hopes of a good run back were further dashed by the departure of a local service over the S&C in front of us. The southbound run was therefore checked on several occasions before reaching the scheduled water stop at Hellifield. We gained some time here and were soon away again, managing to gain time back against the schedule, arriving just seven minutes late at Barrow Hill to hand the train over to the waiting Class 47 for the trip back to Leicester. Her duties complete, Tornado and support coach retired onto Barrow Hill Roundhouse where a brief period of maintenance preceded her next turn of duty with the planned ‘Illuminati’ to Blackpool.
**SHED NOTICES**

**MICHAEL DENHOLM’S PHOTO IS USED FOR NEXT YEAR’S RBF CALENDAR**

You may be interested to know that an image Michael took of Tornado entering Darlington Bank Top with the southbound 'Mad Hatter' on 11th May this year has been chosen for the cover of the Railway Benefit Fund’s 2020 Calendar. A bit more publicity for the A1!

The R.B.F. is a charity founded in 1858 to support railway workers and their families in times of hardship, primarily providing financial support to widows and orphans to those killed on the railway. Today, the mission remains the same; although the scope and scale of the charitable work has changed to reflect the needs of current railway employees.

**MASON ATTENDS THE ANNUAL A1SLT CONVENTION** by Peter Ritchie

Mason had been looking forward to attending the annual convention since he was invited back in the summer. Any opportunity to meet his friends and heroes at the A1 Trust is a real treat. Leigh was very kind in making sure that Mason was given every opportunity to make the most of his special trip including making sure that he spent time talking to Graeme Bunker-James. Leigh also made sure that Mason got a front row seat to listen to all of the presentations and we have never seen him concentrate for so long! We drove from Torquay on the Friday which was the day before the convention. We stayed in Piercebridge and then drove to the convention in the morning.

Here are some of the highlights from Mason in his own words, “I loved the tour of the Darlington works. I walked around with David Elliot as he gave a tour around the works pointing out all the components! I loved seeing everyone from the works again and especially liked seeing Leigh, Huw, Graeme, David and Mark who made sure I had a great time. The lunch was very tasty and we met a man called Peter who knew a lot about engineering. I was really sad when it was time to go but I’m looking forward to seeing Tornado again soon. I’m also working on new fundraising plans for the P2, especially after hearing how much more money is needed to get Prince of Wales up and running. And after I got back home and was still missing my Darlington friends I had a surprise in the post - a Tornado cap! Whenever I can get it off my mum I get chance to wear it!”

**MASON RITCHIE WITH HIS PARENTS.**

**KING’S COURIER NAMEPLATE - AT GREAT CENTRAL AUCTIONS**

A nameplate from No. 60144 King's Courier recently came up for auction at Great Central Auctions. Built at Darlington, Works No 2063, in March 1949 the locomotive was named in January 1951 after the racehorse, owned by Mr J.A. Drake which won the 1900 Doncaster Cup. Allocated new to Doncaster on 8th March 1949 and later Copley Hill, Kings Cross, Ardsley and Grantham with a final five years or so back at Doncaster from where it was withdrawn on 30th April 1963 and cut up at the nearby Works. The plate failed to make its reserve and may still be unsold – contact Great Central Auctions if you are interested.
THE A1 STEAM LOCOMOTIVE TRUST IS YOUR LEGACY

You can ensure that Peppercorn class A1 No. 60163 Tornado, Gresley class P2 No. 2007 Prince of Wales, our yet-to-be-named Gresley class V4 No. 3403 or any other on-going project at the Trust, has a secure future for generations to come by leaving a legacy to The A1 Steam Locomotive Trust in your Will. When writing your Will, if your wish is for the legacy to go to a specific initiative of the Trust, please specify this and we will of course respect your wishes.

Donations via legacies during the last 30 years that The A1 Steam Locomotive Trust has in existence have been relatively limited when compared to other types of donation – although the Trust has always been extremely grateful for any gifts received. If legacy donations to the Trust were written into Wills, The A1 Steam Locomotive Trust, please specify this and we will of course respect your wishes.

Many have the Trustees have already made provision for No. 60163 Tornado and No. 2007 Prince of Wales in their Wills by leaving a legacy to The A1 Steam Locomotive Trust. If you would also like to support the Trust through a legacy to go to a specific initiative of the top UK based charities – where it represents around 40% of fundraising donations, we would like to talk to you.

You could simply fill out a form from a major stationer or online but if your Will is complicated and suitable forms are available from www.a1steam.com or from our Legacy Coordinator.

How has Legacy funding been used by the Trust?

Legacies helped the Trust during the construction of No. 60163 Tornado and No. 2007 Prince of Wales. Since completion, generous gifts have helped fund the conversion of BR Mk I E21249 into Tornado’s support coach and contributed towards the repayment of loans and the £500,000 bearer bond.

What will my Legacy go towards?

A bequest left in your Will, will not be used for the general day to day expenses of running No. 60163 Tornado or No. 2007 Prince of Wales on the Network Rail main line and heritage railways. If you do not state a specific use, we will devote your gift towards the funding of Tornado’s next major overhaul. If however you would like your legacy to be used for something more specific, you will need to talk to our Legacy Coordinator in order to realise your contribution and by doing this we will be certain that your gift will be used for a specific purpose.

To whom do I make my bequest?

If the value of your estate is above a nil rate band threshold value, then it will be liable for inheritance tax (IHT). Any gifts made to UK registered charities are exempt from IHT and further tax savings can be made if you gift more than 10% of your net estate to charity as the IHT tax rate reduces to 36%. A gift to The A1 Steam Locomotive Trust would be classed as a charitable gift and therefore, attracts the favourable tax rules. If your estate is chargeable to IHT, specialist advice should be sought. The A1 Steam Locomotive Trust is the organisation that holds the funds for fundraising projects and has trustees that can accept bequests for any purpose linked to it. The Trust is governed by a Council and its Trustees will ensure your wish is fulfilled.

How do I make a Will?

You could simply fill out a form from a major stationer or online but if your affairs are a little more complex it would be much better to take advice from a solicitor. It costs between £150 and £200 to make a Will.

Can I update my existing Will?

Yes, you will need to produce a document called a codicil; it is not that complicated and suitable forms are available from www.a1steam.com or from our Legacy Coordinator.

What wording do I use?

It depends on how you wish to divide up your estate. Details are available on www.a1steam.com or from our Legacy Coordinator.

For more information, please visit www.a1steam.com or call 01325 460163.
TEAM GRANTHAM IN THE GREAT MODEL RAILWAY CHALLENGE

Graham Nicholas is the Trust’s Professional Head of Engineering but he is also a talented model-maker, having dedicated a huge amount of time to ‘Grantham - The Streamliner Years’, an exhibition layout he has created to reproduce the LNER in its heyday. This year he took part in ‘The Great Model Railway Challenge’ on Channel 5.

Heat Finished.

I suppose it was the word ‘challenge’ that did it. Like many keen railway modellers, I’d watched the first series of Channel 5’s ‘Great Model Railway Challenge’ with a mixture of intrigue and frustration. Intrigued at the whole concept of the programme – and frustrated at the too often mediocre standard of modelling on show.

What persuaded me to get involved was the marked increase in attendance at subsequent model railway exhibitions, people new to the hobby coming along to see what it was all about, the presence of younger faces and families being particularly welcome. Time to play my part in promoting the hobby. Fortunately, some members from the team around my model railway ‘Grantham – The Streamliner Years’ were of a similar mind. We threw our hat into the ring under the name ‘Team Grantham’ and were fortunate enough to get selected as one of the 15 teams for 2019’s Series 2.

That, it turned out was the easy part! Before long, a comprehensive set of rules was supplied together with the ‘theme’ for our participation in Heat 5 of ‘The Great Model Railway Challenge’ on Channel 5.

Other than the pre-build work already mentioned, all work on building the model really does take place on site and in the three days allowed. Having spent over 10 years building the ‘Grantham’ layout, this clearly impressed the judges and audience alike – it subsequently transpired that we were the highest-scoring Heat layout, only dropping two points out of a possible 30 available, including a perfect 10 for both build quality and functionality.

And so on to the semi-final. What the TV didn’t show was that we were actually back at Fawley Hill the very next day, owing to the configuration of the filming schedule! Although we had already pre-submitted a design for the theme ‘Monsters, Myths, Fables and Legend’, we therefore only had the previous evening to work out all the details (no time to celebrate our Heat win!). Yet somehow, we all felt super galvanised and motivated.

This time, we went for something that was about as far removed from a conventional model railway as it was possible to get. Having decided upon the legend of King Arthur and Knights of the Round Table as our response to the theme, we reasoned that, as that was ostensibly 700 years before the invention of the railway, there was little scope for any trains per se and so we used the basic ‘trainset’ railway provided as a theatre set, with the trains as ‘stage hands’, propelling the knights in armour in order to present a sort of miniature theatre portrayal of the legend. If anything, this received an even more rapturous reception from the judges and we won our semi-final by an even bigger margin than the previous round.

We did however come a little unstuck in the final. Choosing yet another different approach in response to the theme ‘Surprise, surprise’, our fairground / rollercoaster design finally proved just a little ambitious and we were pipped to the post by just one point. We did however find a role for ‘Tornado’, masquerading as a 15” gauge Romney-esque miniature train ride.

All in all it was a fantastic experience, a once-in-a-lifetime to do something...
With the low evening sun casting long shadows, Tornado returns from Aberdeen on 7th September.
A1 PROFILE - No. 60126 SIR VINCENT RAVEN by Phil Champion

Brand new at Doncaster on 1st May 1949.

The 31st A1 to enter service, No. 60126 was based on the North Eastern Region throughout its life – very appropriately considering the name it was to carry. It was first noted unpainted in the Doncaster works paint shop on 15th April 1949. It emerged as works No. 2042 (and the 12th A1 built there) in lined LNER apple green which one commentator has described as a startling sight in post war Britain. Indeed, it was the last Doncaster-built A1 to be painted in this colour from new.

Working life for No. 60126 began from Doncaster works for general repairs, one of four so treated that month. It was slightly longer than the average. It had a working life of 15 years and nine months with 62,063. The first logged goods working was on 2nd May.

After a dozen years at Heaton, No. 60126 was re-allocated to York on 10th September. By now the Smith-Stone speedometer was fitted. Most workings tended to be between the capital and Newcastle such as the 17.35hrs down train on 4th April 1962. Earlier, the down ‘Heart of Midlothian’ was hauled from King’s Cross on 13th January; 23rd June’s taking of a Peterborough-Edinburgh train forward from Newcastle to its destination showed that Sir Vincent Raven could still travel over the border: specials and non-passage workings began to feature as much as regular passenger turns.

Sirs had included a Brandon-Walker train on 16th June 1962 and a CTAC train at Newcastle on 3rd September. Non-passage workings were the up seed potatoes seen at Newcastle on 3rd December, a down parcel train noted at York on 22nd March 1963 and a Healey Mills-Forth Yard goods arriving at Newcastle on 11th June. The last recorded passenger was the JN30 Glasgow-Scarborough from Newcastle on 6th July 1963 while the final goods noted was an up train seen at Pillon (Sunderland) at 19.16hrs on 8th August. The only record for 1964 was a sighting in York shed yard on 2nd May.

Withdrawal for Sir Vincent Raven came on 18th January 1965. In March it was sold for scrap to A. Draper of Hull. Its working life of 15 years and nine months was slightly longer than the average. It had carried seven different boilers.

This history was compiled by Phil Champion based on a database compiled by Tommy Knox and with reference to the RCTS book “Locomotives of the LNER Part 2A” as background with additional information from Richard Arden.

Sir Vincent Raven, dead on York shed 2nd April 1964.

No. 60126 storms away from the ‘Cross on 1st August 1962.
**General**

Further substantial progress has been made across the piece, with particular emphasis on the tender.

**Frames**

With delivery of the rectified LH slide bar bracket, both slide bar brackets and the leading boiler support have been set up in the correct positions and permanent bolting is in progress. This is not as straightforward as usual as several of the bolts pass through the flanges of the slide bar brackets and the boiler support. The presence of flanges and structure in all three components prevents location of the magnetic drill in positions to open out the holes and ream them in one operation. The solution has been to temporarily remove the boiler support and drill and ream the holes in the frame and slide bar brackets from between the frame plates. The boiler support is then re-instated and the slide bar brackets removed. The holes in the boiler support are then opened out and reamed using the holes in the frame plates as a drilling jig.

The other event has been delivery of the six single and two double spring brackets which are also being prepared for permanent fitting.

**Boiler**

Further design queries from Meiningen have been answered and Meiningen has started manufacture of major components for the boiler(s) including the inner and outer firebox throat plates.

**Cylinders**

Further work on the detailing of welds on the cylinder block is underway. Patterns for the valve chest covers have been received frompatternmaker John Hazlehurst and quotes for castings are being sought.

**Cylinders drain cock gear**

The original P2 cylinder drain cock gear was cable operated. While a simple solution, the reliability of Bowden cables is not perfect, and given the trouble-free operation of the rod system on Tornado, the decision has been taken to use this arrangement on 2007. Some of the components on Tornado can be used directly but given the differences in the cylinder layout and location of frame stays, the metal between the cab and cylinders has had to be redesigned. Alan Parkin has been busy on this task and illustrated right is the overall layout. Profiles have been ordered and this should keep our DLM staff and volunteers occupied for some time.

**Spring gear**

The coupled spring bolts, spring links and pins have also been received from I D Howitt. Work is in hand with Owen Springs to design and test the modified coupled springs required for No. 2007 as the use roller bearing cannon and axle boxes with their correspondingly larger hornblocks precluded use of the original 42” long springs. 48” springs used on A4 and A1 locomotives are too long given the tight space between the axles on the P2s so a new 45” long spring is required.

Meanwhile North Bay Railway Engineering Services in Darlington have completed machining of the Cartazzi spring planks (which transmit the load from the Cartazzi axleboxes to their springs). These have been machined out of solid steel profiles rather than the original steel castings, as with them being handed, they would have required two separate patterns.

**Wheelsets**

The main activity has been the temporary refitting of the wheelsets to the frame to create space for our Covenantors during the convention on 12th October. They will be removed again after the P2 Roadshow on 2nd November as they make access between the frames difficult. Work has continued on riveting the balance weights in place.
Fittings and pipework

Alan Parkin is approaching completion of the layout of steam and air pipework between the frames and around the steam stand on the back of the firebox. Following three unsuccessful attempts to appoint a manual machinist to machine the large number of fittings and small components “in house”, we have taken on Edward Laxton as apprentice machinist. Edward spent a period at DLW earlier this year as part of a one-year Heritage Lottery funded training package at Boston Lodge Works on the Ffestiniog Railway. He has since enrolled with Darlington College for the academic part of his apprenticeship. We have recently purchased a Cate universal milling machine with power feeds and digital readout to replace our (very) life expired Bridgeport milling machine and will shortly be replacing our large lathe to give Edward a sporting chance of producing precision work. In the meantime a call-off contract has been set up with North Bay Railway Engineering Services in Darlington for the more complex machining work. A variety of LNER style cone joint pipe fittings have been made to adapt the German threads on the air pumps. Thanks to some good work by Graeme Bunker-James and assistance from his wife Sophie, we now have the 71000 Duke of Gloucester Davies and Metcalfe class K injector pattern equipment at DLW – it is shortly being sent to John Hadlehurst for refurbishing prior to having castings made.

Tender

The pre-fitting of the tender tank baseplate to the tender frames has been completed at Ian Howitt’s works at Crofton near Wakefield where a total of 96 blind nuts have been welded to the baseplate. The baseplate has since been returned to North View Engineering Solutions in Darlington where the erection of the tender tank is proceeding rapidly.

South Devon Railway Engineering has delivered the tender wheelsets which will now have cartridge roller bearings fitted and then be sent for balancing.
Electrical
Following a design review with Rob Morland, Alan Parkin, Paul Depledge and Daniela Filová we have now effectively frozen a large part of the electrical system design for 2007. Alan has almost finished the trunking layout on the engine – the tender comes next. Rob is now moving on with detailed design of the power supply systems. The battery boxes have been fully welded and will shortly be trial fitted to the engine.

The last of the detail parts for the axle driven alternator are being delivered which will enable assembly and testing, which will involve setting it up under power for EMC (Electro Magnetic Compatibility) testing before it is to be given practical service testing under Tomado’s 21249 support coach.

Workshop Management
With Richard Pearson moving over to fulfill the role of Locomotive Manager for Tornado, Daniela has stepped in as Workshop Manager (in addition to her Assistant Mechanical Engineer role) and is making strides in improving organisation of the workshop and planning the workload.

Accommodation Bogies
Whilst Tornado was based at Crewe Heritage Centre earlier this year, it came to my attention that they were in the process of scrapping some old accommodation bogies. Accommodation bogies are typically used to support vehicles undergoing overhaul whilst their own bogies are being repaired. We had been on the lookout for a set of bogies to support major components of steam locomotives for some time, and a pair of bogies from Crewe were bought for what is effectively their scrap value. Having brought them to DUW, stripping and repairing is in progress in time for their first major role to carry the tender tank when it is delivered towards the end of this year.

On dismantling the wheelsets and axleboxes, several components have CLR stamped on them and one axle has 1920 stamped on it. This would suggest that the bogies are from very early Central London Line (now Central Line) tube carriages which makes them historically interesting in their own right. They are in the process of being cleaned and painted to enable them to survive being kept outside for most of their lives.

Accommodation bogie after grit blasting.

Right: Bearing brass from accommodation bogie.

P2 DEDICATED DONATIONS UPDATE by Mandy Grant

The period from Mid-August 2019 to 31st October 2019 has seen a huge increase in component sponsorship, with 40 individual components being sponsored, raising a further £61,069.00 before gift aid. This brings the total number of components now sponsored to 580! Components sponsored during this period include:

- Eight Tender Wheels
- Four Tender Axles
- Eight Tender Wheel Tyres
- Tender Duplex Vacuum Gauge
- Engine and Tender Drawhooks
- Speedometer
- Speedometer Cable
- Speedometer Generator
- Speedometer Generator Return Crank
- Cylinder Exhaust Valve Tappet Rear LH
- Leading Coupled Axlebox Castellated Nut 7
- Driving LH coupled wheel casting and proof machining - Spoke 12
- Front Pony Truck Side Control Spring
- Cladding sheet S RH (firebox front)
- LH Cylinder Front Cylinder Drain Cock Copper Outlet Pipe inc Bronze Pipe Union Fitting (Nut and Cone)
- LH Cylinder Rear Cylinder Drain Cock Copper Outlet Pipe inc Bronze Pipe Union Fitting (Nut and Cone)
- Locomotive Buffer beam Air Brake Hose Red
- Locomotive Buffer beam Air Brake Hose Yellow
- Various Hornblock Nut/Bolt Sets

We are most grateful to all of our supporters who have responded to the Dedicated Donations campaign so far! Now is the perfect time to be thinking about Christmas gifts, with prices ranging from one of over 1,000 driven bolts & nuts for £25, to the complete exhaust steam injector for £15,000. Why not treat the railway enthusiast in your family to something different and help us to complete this iconic locomotive!

We have recently released over 200 Brand New Components which are available to sponsor! These include the Vacuum Brake components, Air Brake Items, Super Heater Header components, Brake Shaft Items, Crosshead Oil Boxes, Exhaust Injector Pipework, Vacuum Ejector Pipework, Alternator and associated components, Cylinder Drain Cock components.

Please email Mandy at dedicated.donations@p2steam.com for more information.

If you know of a business owner or company who may be interested in sponsoring an item on No. 2007 Prince of Wales, please contact dedicated.donations@p2steam.com

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FUNDRAISING FOR NO. 2007 PRINCE OF WALES REACHES TWO-THIRDS PLEDGED by Mark Allatt

Over £3.4m pledged, £2.7m donated and £2.1m spent of £5m target

Our project to build Gresley class P2 No. 2007 Prince of Wales continues to make solid progress on all fronts and we are still on target to complete the new locomotive within three years provided we can turn up the wick on our income growth. A huge thank you to all our supporters who continue to give most generously to the project.

Pledges towards building No. 2007 Prince of Wales have passed £3.4m just over five years after assembly officially started at Darlington Locomotive Works. Public interest in seeing a new Gresley class P2 become a reality sooner rather than later remains high and almost 920 people have already signed up to the ‘P2 for the price of a pint of beer per week’ (£2.50 per week or more) Covenant scheme since its launch in March 2014. The average monthly donation is now over £17 per Covenantor (including Gift Aid) and the projected monthly income for our P2 project from the monthly Covenant scheme is now running at around £120 of that of Tornado – a remarkable achievement in such a short period of time and all thanks to the generosity of our supporters. What is even more striking is that only around 30% of A1 Covenanators (36% of P2 Covenantors) are regular donors to both locomotives, meaning that the overwhelming majority of the funds are being given by new supporters of the Trust.

In addition to this core scheme, funds have been raised through The Founders Club with over 360 members donated £1,000 each plus Gift Aid – target 100 members, now closed; The Mikado Club, launched in March 2016 with an initial target of 160 members to wheel the engine and extended in May 2017 to 200 members to also wheel the tender - now fully subscribed with 200 supporters pledging £1,000 each plus Gift Aid and therefore potentially raising £250,000; and The Cylinder Club, only launched at our Convention in May 2017, is now also fully subscribed with 100 people having already pledged £1,000 each plus Gift Aid and therefore potentially raising £125,000. The Gresley Society Trust has sponsored the locomotive’s distinctive front-end for which we are most grateful.

You can read elsewhere in this issue of TCC where these funds have already been put to good use.

Order in June 2019 for two new boilers – an heir and a spare – from DB Meiningen makes it more important than ever that we reach our 300 members target for The Boiler Club as soon as possible. We have already recruited almost 181 people to The Boiler Club, each of whom have pledged £2,000 each plus Gift Aid and to the project in up to 15 payments of £100 by standing order. The Tender Club got off to a rather slow start but has now recruited 46 people as of the end of October which is still in stark contrast to the tender’s construction! As you can read in David Elliott’s engineering update, work is progressing rapidly on the tender tank, frames and wheelsets. With a fair wind we should have an almost complete tender behind the engine in DLW in the new year.

However, to make this happen we need many more people to get on board The Tender Club.

Our Dedicated Donations initiative continues to generate substantial income for the project, with around £400,000 to-date from existing supporters sponsoring a variety of components. There are still a considerable number of wheeling-related Dedicated Donations still available for sponsorship, ranging from a driving wheel spoke at £600 (or from £25 per month for 24 months) to a Carranza bogie casting at £1,300 (or from £50 per month for 26 months) to and driving wheel casting & proof machining at £12,000 (or from £200 per month for 60 months – the ideal Christmas present for Mikado lovers!) We are delighted with the level of support that the project to build Britain’s most powerful steam locomotive has received since its launch. This means over £2.1m (over 40% of the total required) converted into metal, over £2.7m (54%) raised and £3.4m (over two-thirds) pledged.

We now have a rolling chassis and we remain on-track for completion of the new locomotive within three years. However, to maintain this rate of progress we need to raise more than £700,000 per year, which given the nature of the regular donation scheme becomes more challenging as each year passes. Last financial year we didn’t quite achieve our budget of £500,000 and so we will have to work harder this year to maintain our momentum.

We would encourage all our supporters who haven’t yet contributed to this exciting project to help us to meet these deadlines by becoming a monthly ‘P2 for the price of a pint of beer a week’ Covenantor, joining The Boiler Club, subscribing to The Motion Club, becoming a member of The Tender Club or taking out a Dedicated Donation. It’s time to get on-board!

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.
Help Britain’s most powerful steam locomotive to build a head of steam

Join The Boiler Club today and help us to complete No. 2007 Prince of Wales in record time!

The boiler is the beating heart of a steam locomotive and to keep the construction of No. 2007 Prince of Wales on schedule for completion in 2021, we need to place the order for the boiler in 2019 for delivery in January 2021. We have established The Boiler Club to fund the construction of Prince of Wales’ boiler. 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 over half way there, having raised £440,000 so far!

Special benefits for members of The Boiler Club:

- Opportunity to buy ticket (seat already reserved) on one of No. 2007’s first main line trips
- 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
- 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.

Together we can build this remarkable locomotive - join The Boiler Club today!

For further information please visit www.p2steam.com email enquiries@p2steam.com call 01325 460163 or write to The Boiler Club, P2 Construction Fund, Darlington Locomotive Works, FREEPOST RTJC-CHXR-XARL, The A1 Steam Locomotive Trust, Hopetown Lane, Darlington DL3 6RQ

Volunteers!

At this year’s Convention, I talked about our volunteers. Obviously, not everyone reading this edition of TCC will have been at that Convention, so I thought I’d give you an insight.

Did you know that on average 20 million people a year in the UK – a third of the population, volunteer in some form or another! That’s quite a remarkable number.

Within our organisation, we have volunteers in various roles. Stewards (Carriage Hosts), merchandisers, support crew, works guides, train managers, roadshow hosts, people who go out and do presentations and our Trustees. What a fantastic job they all do, without them we would simply not be able to function. Long hours and hard graft does not faze them.

I look after over 70 volunteers, mainly our on-train, works guides & events personnel. They are an absolute credit to both myself and this organisation.

We do have a good time together - particularly when things go to plan. However, life is rarely like that and at times our job can be difficult. But the way we all gel together to resolve issues is extraordinary and incredibly professional.

I still need more help, particularly on the trains and in certain areas of the country. At the moment, I really could do with people in Scotland, so if you fancy giving it a go, please let me know. We use the latest software to make signing up to trips and events easy, and also a great instant communication system.

Mark Grant, Volunteer Coordinator - contact: mark.grant@a1steam.com

Together we can build this remarkable locomotive - join The Boiler Club today!
COME ON, COME ON, DO THE LOCO-MOTION WITH ME!
by Mark Allatt

In April 2018, The A1 Steam Locomotive Trust launched a new appeal to raise the funds to manufacture the new boiler for the newly restored A1 Class steam locomotive Prince of Wales. The appeal was established with the aim of raising £210,000 from 175 supporters each donating £1,000 (plus Gift Aid) to the project in up to eight payments of £125 by standing order. In just seven weeks the appeal had already reached over a quarter of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with almost 60% of its £210,000 target and by the end of October 2019 we had recruited 156 members to The Motion Club, with 56% of its £210,000 target. The work involved in designing and manufacturing the motion includes:

- Redesign of coupling and connecting rods to use modern material (pre-war nickel chrome steel proved prone to fracture)
- Incorporation of late-pattern BR-type continuous white metal lined crank pin bearing bushes
- Use of the late-A1 design of inside connecting rod which overcame the tendency for the original design of inside connecting rods on LNER ‘Pacifics’ to big-end failure
- Open die forging of six coupling rods, two outside connecting rods and the inside connecting rod and strap
- CNC machining of all rods
- Manufacture of oil box lids, coupling rod knuckle pins, nuts and washers and bearing bush keys
- Casting of leaded gunmetal and phosphor bronze castings of crank pin bearing bushes
- Machining and white metallising of bearing bushes
- Fitting oil box tops
- Assembly of bearing bushes to rods
- Polishing rods.

With fewer than 20 places still remaining in The Motion Club, now is the time to come on-board and help No. 2007 to locomote!

To become a member of The Motion Club, email enquiries@p2steam.com, call 01325 460163 or visit www.p2steam.com for more information.

P2 ROADSHOWS 2020 by Mark Allatt

Following on from the success of our 2018 and 2019 Roadshow programme, we are continuing the Roadshows in 2020 with a series of presentations on the project to build new Great Gresley class P2 No. 2007 Prince of Wales. Each presentation will feature key team members including Mark Allatt and/or David Elliott and will cover the background to the project, progress to-date, future plans and details of how to get involved. We would encourage you to attend one of these Roadshows and bring along some friends and family members who would be interested in hearing about the project. The two hour presentations will start promptly at 11.00hrs and run until 13.00hrs* on each of the days listed here and are open to existing supporters and interested members of the public.

THE RACE IS ON TO GET UP STEAM!

In June 2019 the starting gun was fired with the order of two new boilers from DB Maschinen – and we now have just 24 months to raise all of the funds necessary to pay for No. 2007’s boiler – that’s more than one new member recruited to The Boiler Club every week for two years! By the end of October 2019 The Boiler Club fundraising campaign had recruited 60% of its target membership with pledges of over £440,000. Launched in October 2014 to raise the £600,000 needed for the manufacture of the boiler, The Boiler Club now has over 180 members who have each donated or pledged £2,000 (plus Gift Aid).

Reaching the 60% point in the funding of No. 2007 Prince of Wales’ boiler through The Boiler Club marks a significant milestone in the project to build Britain’s most powerful steam locomotive. The boiler is the beating heart of a steam locomotive and to keep the construction of No. 2007 Prince of Wales on schedule for completion within three years we need to take delivery of the new boiler in July 2021. To become a member of The Boiler Club, email enquiries@p2steam.com, call 01325 460163 or visit www.p2steam.com for more information.

SAVE THE DATE:
Saturday 26th September 2020 – Annual Convention.
Invitations will be sent out in July 2020.

Annual Convention 2019 raffle prize draw winners:
1st Prize – Table for two in First Class Dining on a Tornado Raitour – Mr Robinson
2nd Prize – 1 x First Class tickets Non-Dining on a Tornado Raitour – Mr Myles
3rd Prize – 2 x Standard Class Tickets on a Tornado Raitour – Mr Welovey
5 x Prizes – ‘Tornado 10 Years in Steam’ poster – Mr Wakefield, Mr Findley, Mr Carter, Mr Irons, Mr Holdsworth
5 x Prizes – ‘A Giant Resurrected’ poster – Mr Cooper, Mr Osborne, Mr Cook, J Day, Mr Kiddie.
PROJECT TO BUILD OUR THIRD NEW STEAM LOCOMOTIVE GETS UP STEAM by Mark Allatt

The A1 Steam Locomotive Trust has placed an order for its Darlington Locomotive Works for the construction of the third yet-to-be-named Gresley class V4 No. 3403. This will be the third new LNER-designed steam locomotive to be built by the Trust. It also announced that it had made significant progress in the pre-launch phase of the project which is planned to take place in spring 2020.

The order for new Gresley class V4 No. 3403 was placed with the Trust’s Darlington Locomotive Works on the 80th anniversary of the original order No. 355 for two class V4s which was placed on the LNER’s Doncaster Works in October 1939 if the design had been perfected by the LNER. It is likely that significant numbers of class V4s would have been built at the original LNER Darlington Locomotive Works, which won on to construct 60 of the replacement Thompsons after the 1925 Grouping.

The A1 Steam Locomotive Trust has started the process of scanning 366 original Gresley class V4 drawings from microfiche into the Trust’s CAD system. These drawings were recently acquired from Malcolm Barlow, a Doncaster scrap dealer who launched the now defunct Gresley V4 Society in 1994 to build a new example of the class.

Component acquisition in advance of the construction continues on an opportunistic basis. The Trust has taken delivery set of cab side window frames for use on No. 3403 by Colin Vickridge, a long standing supporter of the Trust. Colin also provided the cab side window frames for Tornado.

Other progress to date now includes: Trustee agreement to the tender built for A1 class No. 61631 Tonoma. The original P2 tenders were to the 1930s non-corridor design built for the new A3 Pacifics’ being built at that time.

The tender tank by North View Engineering Solutions of Darlington. The A1 Steam Locomotive Trust has set itself the challenge of raising £450,000 through The Tender Club from 250 supporters each donating £1,500 (plus Gift Aid) to the project to ensure completion.

The tender tank by North View Engineering Solutions of Darlington. The A1 Steam Locomotive Trust has set itself the challenge of raising £450,000 through The Tender Club from 250 supporters each donating £1,500 (plus Gift Aid) to the project to ensure completion.

At the Trust’s annual convention in October, we were delighted to be able to announce that substantial progress has been made on the tender with the erection of the tender frames by ID Howlett of Crofton (now around two-thirds complete and expected to be delivered to Darlington in the new year), the construction of the tender tank by North View Engineering Solutions Ltd of Darlington (now around half complete and expected to be delivered to DLW before the end of year) and the assembly of the four tender wheelsets at South Devon Railway Engineering Ltd in Buckfastleigh (now substantially complete and expected to be delivered to DLW in November).

Following the success of The Founders Club (to get the project to the point of cutting the frames), The Boiler Club (to fund the construction of the boiler), The Mikado Club (to the locomotive), The Cylinder Club (to make the cylinder block), The Motion Club (to fund the heavy motion) and the Dedicated Donations scheme the Trust has decided to establish The Tender Club to raise an estimated £450,000 required to manufacture No. 3403’s tender.

In return for supporting this appeal, special benefits for members of The Tender Club include:

- Opportunity to buy exclusive Tender Club badge
- Opportunity to join one of the teams building No. 3403
- Special Tender Club day with Tornado
- Opportunity to buy exclusive Tender Club badge
- Opportunity to order a limited edition painting of Stephen Bainbridge’s ‘Locomotives of the future’ painting.

The tender tank will be a fully welded structure made from weathering steel (as used on motorway bridges and the Angel of the North) to provide improved resistance to corrosion. The main visible differences with the new tender when compared to that of Tornado will be the curving inwards of the side sheets at the front to match the shape of the cab sides, and complete removal of access panels on the front and side for easy access.

The water capacity of the original design was 5,000 gallons, which at a typical consumption of 45 gallons per mile would provide a range between water stops of 80 miles (with a safety margin). The tender for Tornado was re-designed to increase the water capacity to 4,250 gallons which increases the range to about 110 miles. The additional water capacity is at the expense of a reduction in coal capacity from 9 tons to 7 tons.

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PROFILE – STEVE DAVIES by Graham Langer

A former Colonel in the British Army, Steve has been a lifelong railway enthusiast and is involved in a significant number of heritage railway projects both on a professional and voluntary basis. Born in 1959 and raised in Darwen in Lancashire, his youth and formative years were spent in the heart of industrial Lancashire in the dying days of steam on the main lines of British Railways, with his railway interests heavily influenced by his grandfather, a former driver at Lower Darwen engine shed. Later in life he was to become the last Director of the NRM to have remembered and experienced main line steam.

Steve joined the Army at 16 as an electronics apprentice but the Army spotted a spark of latent leadership talent in him and he was soon to pass the officer selection Board, entering Sandhurst at the age of 18. Commissioned into The Queen’s Lancashire Regiment in 1978, his Army career saw him serve in a wide variety of countries, many on operations. He rose to become the Commanding Officer of his Regiment. He enjoyed two tours of duty in the Gulf.

Steve was as Chief of Staff of a Division with responsibility for military planning across the UK land mass. He subsequently served as Director of the National Railway Museum. During his time at the NRM, Steve achieved possibly the most incredible and imaginative project ever seen in the history of railway preservation by bringing together all six survivors of Sir Nigel Gresley’s record-breaking A4 Class Pacific steam locomotives, two of which were resident on the other side of the Atlantic. This allowed the 75th anniversary of Mallard’s world record-breaking 126 mph run to be celebrated in considerable style, attracting literally hundreds of thousands of visitors to York and Shildon, some from the other side of the World.

A natural leader, organiser and communicator, Steve has had wide experience on TV and radio, notably appearing in the ‘Caravan Train’ episode of Top Gear, and his railway heritage consultancy recently managed the development of the Channel 4 carriage restoration series fronted by Peter Snow.

Steve has been working alongside the Trustees at The A1 Steam Locomotive Trust in an advisory capacity for some time, and recently formed part of the negotiating team at Planinglen resulting in the placement of the order for two new boilers. He has now decided that he knows he is going to feel very much at home with the A1SLT!

FROM THE ARCHIVES by Graham Langer

Steve Davies on his last day at MOSI, escorting the Prince of Wales, who had just arrived in the The Royal Train, hauled by Tornado.

Tornado at Barrow Hill for the 2014 Convention, surrounded by her supporters. The headboard was a tribute to the late Mike Notley, train timing recorder.

Steve Davies on duty in the Gulf.

With the coupling rods fitted, Tornado could be lifted onto a set of rollers to allow the wheels to be rotated.

Autumn 1999 – The sixth Annual Convention took place at the Dolphin Centre, Darlington on Saturday 9th October. The centrepiece of the day was the unveiling of the wheeled locomotive chassis at Darlington Locomotive Works for the first time. Tornado’s six 6ft driving wheels had to be moved from Bury to the Severn Valley Railway’s workshops at Bridgnorth for turning, returning to Bury for the tyres to be fitted, before again visiting the SVR for the newly fitted tyres to be turned. The steel tyres had already been fitted to the two 3ft 6in Cartazzi (trailing) wheels by the Trust’s contractor, Ian Riley of Riley & Son (Electromech) Ltd of Bury and the tyres turned, followed by the four 3ft 8in front bogie wheels.

Autumn 2004 – The coupling rods had been fitted to the locomotive by the end of 2004. Each of the four 7ft 6in rods weighs around two hundredweight and after forging, extensive machining and heat treatment, the four cost around £22,000 to manufacture. These rods were vital additions to the £150,000 valve gear and motion assemblies, which were now the focus of work on Tornado at the Trust’s Darlington Locomotive Works. The Trust had also started work on the fitting of the rest of the outer motion. The bushes for the connecting rods were machined at Ian Howitt Ltd and one side of the locomotive had been fitted with a mock-up of parts of its valve gear.

Autumn 2009 – Tornado continued to break new ground, travelling to Plymouth in August, appearing at Didcot, home of the Great Western Society in September, breasting Shap for the first time in October before heading to Barrow Hill for an open day and visiting the Severn Valley Railway. Tornado was also the star of GMTV as she was prepared for runs over the Settle to Carlisle line with ‘The Waverley’ during the weekend of 3rd and 4th October. Otherwise the locomotive continued to operate ‘The Cathedrals Express’ on behalf of Steam Dreams.

Autumn 2014 – With the coupling rods fitted, Tornado could be lifted onto a set of rollers to allow the wheels to be rotated.
The A1 Steam Locomotive Trust is pleased to display the logos of organisations giving us their ongoing support. Their contribution is gratefully acknowledged.

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*All information correct at the time of going to press late November 2019. For up-to-date information and dates please check the website www.a1steam.com.

Darlington Locomotive Works is normally open to the public on the first and 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 (with Covenantor card). 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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