



**60163 TORNADO**  
New Steam for the Main Line



**2007 PRINCE OF WALES**  
Building Britain's Most Powerful Steam Locomotive



**3403 HIGHLANDER**  
Recreating Gresley's last design

# THE COMMUNICATION CORD

No. 70 Summer 2023



**An image to gladden the heart! *Tornado's* frames once again rest on her wheels, ready to receive the boiler, which will have been delivered to Locomotive Maintenance Services by now.**

A/SLT



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## EDITORIAL by Graham Langer



One might forgive those at the 'coal face' of the Trust, the Trustees, office staff and workshop staff, for feeling rather punch drunk after all the reversals of fortune that have befallen the organisation in the last year and yet there is much to be encouraged by, even if some of this has been out of sight in the workshops of our contractors. There can be no doubt that the opening of the new Darlington Locomotive Works has been an outstanding success and we hope that those of you who were unable to attend our first formal 'Open Day' will be able to come to our annual convention on 14<sup>th</sup> October.

As the Trust evolves it is inevitable that there will changes among the personnel helping to run it and after more than six years on the Board, Paul Bruce is stepping down as a Director and Trustee. He will, however, continue to be involved with the Trust and we are sure he will remain indispensable!

A career railwayman, Paul came from a family of rail workers dating back to 1841. In 1979 he joined the British Railways Operations Department in York. Initially in Signalling & Accidents he moved into the locomotive maintenance control at Bounds Green depot in 1982. After marrying Sue in 1985 they made Darlington their home. In 1988 Paul took a role as Operating Manager at Heaton Depot before secondment to the Engineering HQ in Derby and during the early '90s he became Fleet Commercial Manager for Regional Railway North East in Leeds. With a move to York he eventually became Head of Procurement and Head of Property in RRNE's successor organisations of Northern Spirit, Arriva Trains North East and Northern Rail. 2006 saw Paul becoming self-employed and with a specialism in procurement, rail franchising and the Access Regulations he has been kept busy ever since. Paul joined the Trust with a focus on property management for the Trust, but was also the Trust's representative on Darlington Council's Rail Heritage Steering Group Board, driving development of the North Road Railway Heritage Quarter and its part in the 2025 celebrations. In this role he has proved invaluable, overseeing the procurement of the track needed for DLW2 and keeping a watching eye on the construction of the new works building, something only a local Trustee could manage.



Paul Bruce.



Liz Gibson has now joined the Board as a Director and Trustee having been recruited as a useful addition to the Trust's marketing team. Liz is a Laboratory Manager in Cambridge with a background in biochemistry and genetics and is passionate about all forms of steam power and aircraft. She will be helping with Trust presentations and open days and has successfully taken the Trust stand to air shows since we know that there is a high degree of cross-over between our supporters and aircraft enthusiasts. Liz has also taken over responsibility for the P2 Dedicated Donations scheme which raises significant sums towards the construction of *Prince of Wales*. As the photo shows, she is not afraid of getting her hands (and much more!) dirty and helped with some of the preparatory work for *Tornado's* overhaul.

Finally, we bid adieu to Dawn Phillips who leaves the office team after a couple of very eventful years. Dawn was made "an offer she couldn't refuse" and Jacqui Nicholson now takes over her role – see Paul Bruce's column in the Covenantors' Diary section. We wish Dawn well in her new job. **TCC**



Dawn Phillips.

## FROM THE CHAIR by Steve Davies



With any major locomotive overhaul there are always a number of key moments or 'milestones' which demonstrate significant progress, and which in turn have a positive impact on team morale. In the case of *Tornado's* current rebuild (for that is surely what we are doing) I would contend that the 'Big Three' would include the completion of the fitting of European Train Control System (ETCS), the re-wheeling of the engine, and finally the fitting of the boiler to the frames. As you will see and read elsewhere in this issue, the former is virtually complete (indeed the tender has now been moved to the Great Central Railway to await reuniting with the locomotive), and the latter two are definitely 'in the bag'. To say that morale at the Trust is climbing would be an understatement with the finishing line very firmly in sight and thus staff, volunteers and supporters, and of course David Wright and his accomplished team at Locomotive Maintenance Services, can all be rightly proud of their respective roles in the delivery of this highly complex project, one which has had its fair share of twists and turns and the unexpected. We now look forward to final fitting out, running in at the Great Central Railway and an extensive ETCS testing regime at the Rail Innovation and Development Centre Melton (RIDC) test facility. Incidentally, we believe *Tornado* will be the first steam locomotive to be tested at RIDC, a venue forever associated with the trials and development of APT-E. This is a seminal moment in the history of steam's continuing access to the main line and we anticipate a busy time helping to prove the concept and demonstrate the system to a broad variety of audiences, in the process hopefully repaying Network Rail's confidence in us as their first ETCS steam 'customer'. I am not entirely sure that the full significance of ETCS has been grasped and appreciated by the railway heritage fraternity - not just in terms of the complexity of its installation, and adaptation to the hostile environment of a steam locomotive – but most significantly of how it must

be fully embraced if steam is to have a future on an increasingly sophisticated main line. The Trust led the way in the development of new steam locomotives built for a 21<sup>st</sup> Century railway network, and I believe it entirely appropriate that we are currently in the vanguard of the development of signalling in the digital era. I think I speak for us all when I say that our return to the main line can't come a moment too soon.

Elsewhere, steady but solid progress continues to me made with our Gresley P2 Class, *Prince of Wales*. The cylinder block is virtually complete and will be in Darlington soon, as will the tender frames, and a recent visit to Meiningen by Graeme Bunker-James and myself revealed the happy news that the new boiler will be ready for delivery by the end of the year. It would certainly make a nice Christmas Present to ourselves, but (just in case!) it would make an equally appealing New Year's gift (your Chairman rapidly hedging his bets here!). The fully machined and pressure tested three-cylinder monobloc will also be arriving at the Works very soon, and we intend to waste little time in trial fitting it into the frames. This will be another of those seminal moments in the history of the Trust. I know that David Elliott is as keen as anyone to see this happen soon, and those who were present at the open day held for our supporters, and who listened with stunned silence and awe to David's immensely powerful speech outlining his challenging personal circumstances, will appreciate the urgency. As the overhaul of *Tornado* comes to an end, so resources and manpower can be re-directed towards the P2's completion. But our work is not, of course, confined exclusively to locomotives, and as I explained at the open day, we are in the

process of delivering track infrastructure to provide connectivity with the 1861 Shed, the main line connection, and the 800 yard running line. We are fortunate that this project will be kick-started in October when the Army, in the form of 507 Special Team Royal Engineers (Railways) (507 STRE), will begin to lay track as a useful training exercise. As you are aware, we are determined to install a turntable in order to maximize the usefulness and utility of our facility, and the thought processes for this have already begun, with a variety of options being studied ranging from a brand-new fabrication through to the reconditioning of an existing turntable, possibly from Germany. Efforts currently focus on the communication campaign required to set in chain the conditions needed to generate appropriate support, with particular emphasis on local and regional politicians and influencers. I firmly believe that the Darlington Rail Heritage Quarter concept remains unfinished business without this essential piece of infrastructure. To close, I would just like to say how much we have appreciated and enjoyed your collective unflinching support during the last 18 months. It has been a long old slog which has impacted on our cash reserves, but we are emerging from the exercise a much stronger and determined body having benefited from the enhanced resilience that often results from a challenging collective experience. We look forward to seeing many of you at our Convention and annual Dinner when we hope to further enthuse and inspire you. It goes without saying that I look forward to describing to you the successful return to steam of *Tornado* in the next edition of *TCC* – it can't come a moment too soon!! **TCC**



Covenantors and supporters gather round to listen to Steve Davies address during the first open day at the new Works.

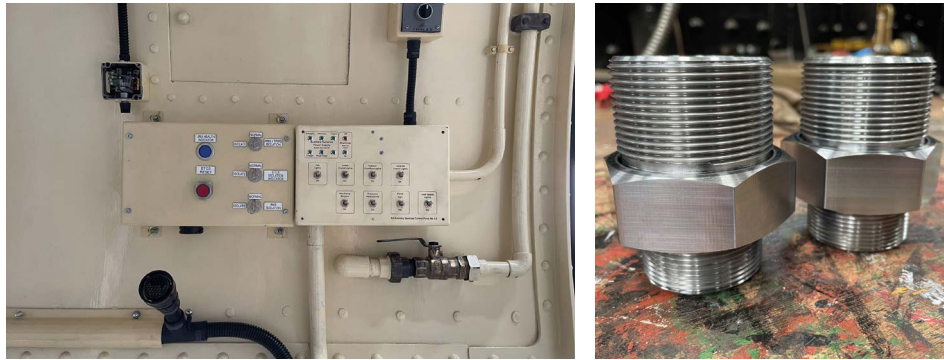


AI OVERHAUL REPORT by Richard Pearson and Ben McDonald

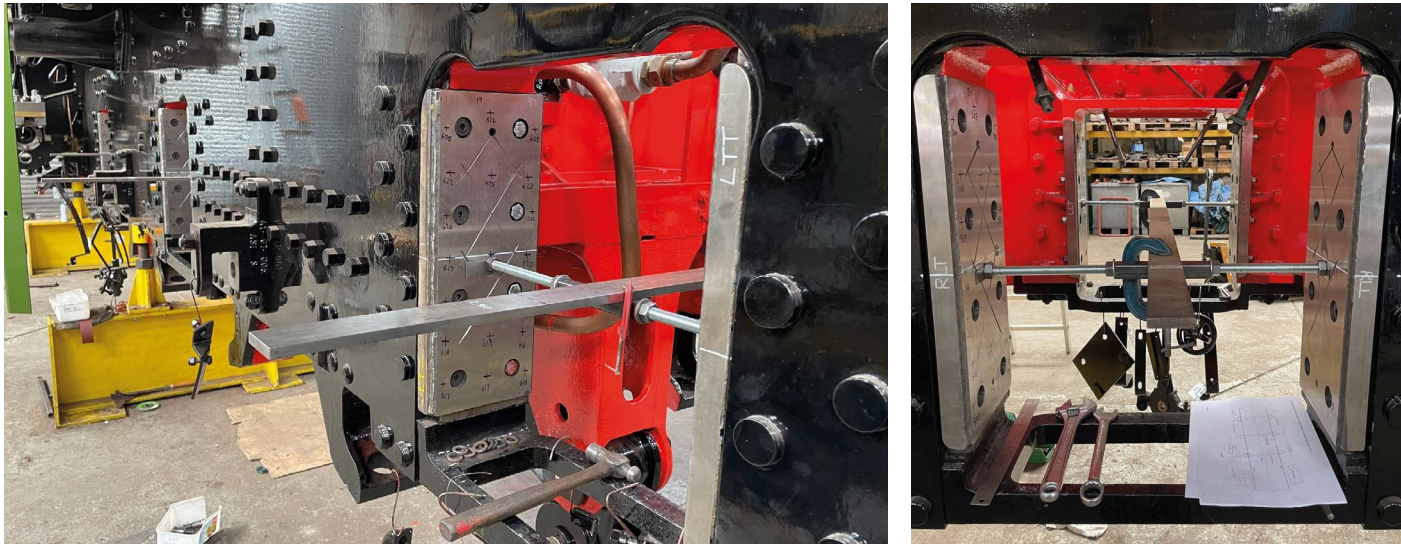
Despite various frustrating setbacks, solid progress has been made in many areas of *Tornado's* protracted overhaul, both at the new Darlington Locomotive Works (DLW) and David Wright's Locomotive Maintenance Services (LMS). Firstly, let's look at what has been achieved at LMS.

**Right: The new ETCS, AWS/ TWPS isolation switch board has been installed on the underside of the cab roof on the fireman's side.**

**Far Right: The exhaust and air take off fittings that were missing from the rear air pump have been made and are shown ready for installation.**



photos - Richard Pearson and Ben McDonald



**Above: The manganese horn liners arrived back at Loughborough and were temporarily fitted to the horn guides for the bars to simulate the axle centre to be set up. With the data gathered from the optical alinement that was carried out last year, this allowed us to measure from the centre of the 'dummy axle' back to the horn faces to work out how much the liners needed shimming.**

Richard Pearson supervised the preparation of the wheelsets to receive the cannon boxes once they had been offered up to the hornguides and clearances confirmed. The wheelsets could then be fitted and the end clearances for each of the roller bearings set. This is a time-consuming exercise, but the reasons for ensuring these are correct are self-evident. The locomotive has always rolled easily and without wishing to tempt fate, the cannon boxes have given us 150,000 miles trouble-free running. The team cleaned the trailing and driving axles, removing the old grease and the protective layers from the crank pins. A time consuming, messy but essential activity!

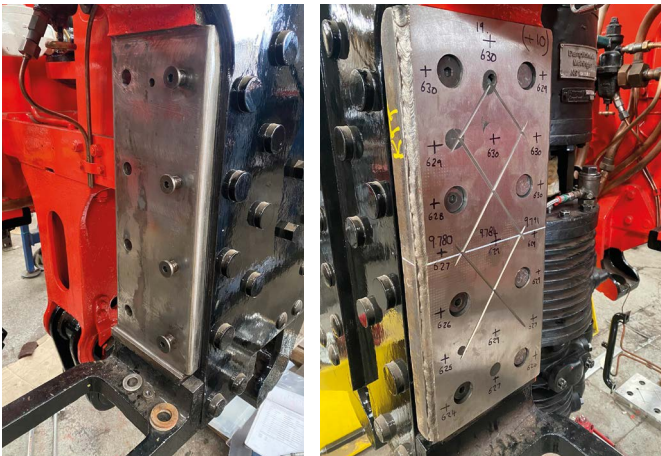


**Alex Morton cleans the old grease from the left-hand roller bearing on the trailing wheelset.**

**The cleaned right-hand trailing crank pin.**



**The three driving wheelsets fully painted and lined.**



**Above centre: The right-hand trailing front hornguide removed for machining.**

**Above right: The right-hand trailing rear hornguide machined and re-fitted showing the measurements required to ensure that the hornguides are parallel to enable the cannon boxes to fit with the correct clearances. The rear air pump is just visible between the frames.**

**Left: The centre driving hornguides finally machined and replaced in the frames. The bar fixed between the centres of the hornguides provides the datum used to locate each axle correctly and to ensure the rods will still fit when the motion is reassembled!**





**The external power supply unit designed and built by Rob in use supporting electrical testing.**



**Rob Morland at work testing the cab electrical systems.**



**A view of the cab showing progress fitting new electrical boxes.**



**Above: The frames from rear showing rear air pump in place with insulated steam pipes being refitted.**



**Above centre: The leading air pump re-fitted to the star stay.**

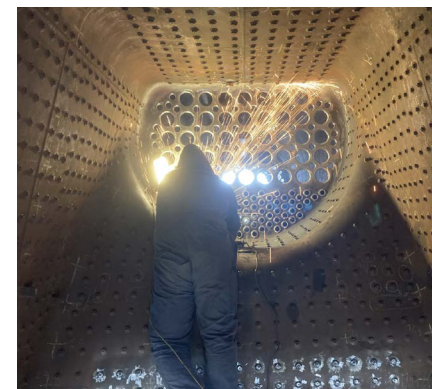


**The driver's side smoke deflector with enlarged removable panel for access to the new ETCS turbogen.**

Meanwhile at Darlington Locomotive Works the welding of the flue tubes into the firebox tubeplate was completed followed by final expansion of the tubes into the smokebox tubeplate. On conclusion of the relevant works, the boiler was filled completely with water and slowly the hydraulic pressure was raised to ensure there were no leaks. The boiler is tested to one and a half times working pressure with water; this being far safer than an immediate steam test. Following careful preparation, the British Engineering Services (BES) boiler inspector visited DLW on Friday and carried out a formal hydraulic test. The BES inspector pronounced himself happy with the boiler and preparations were swiftly made to move on to the steam test. In preparation for the steam test, a few key components, such as the safety valves, needed refitting. These spaces on the boiler had been blanked off

with a simple plate for the hydraulic test. Once ready, the boiler was moved outside the works building and for the first time since early 2022 a fire was lit to start the task of steadily warming the boiler through.

On the morning of Wednesday 12<sup>th</sup> July, *Tornado's* boiler was put to the test. The team had gently nursed the fire over the weekend to ensure that the boiler was warmed through, slowly building steam pressure as the week began. Buoyed by bacon sandwiches from the shovel, and no signs of defects under pressure, the boiler inspector was called for a midweek appointment. We are now delighted to report that the inspector was pleased with what he saw, and that we are now proudly in possession of a 12-month boiler certificate for No. 60163.



**Above: Work continues inside *Tornado's* firebox.**



**Right: The boiler set up for the steam test.**



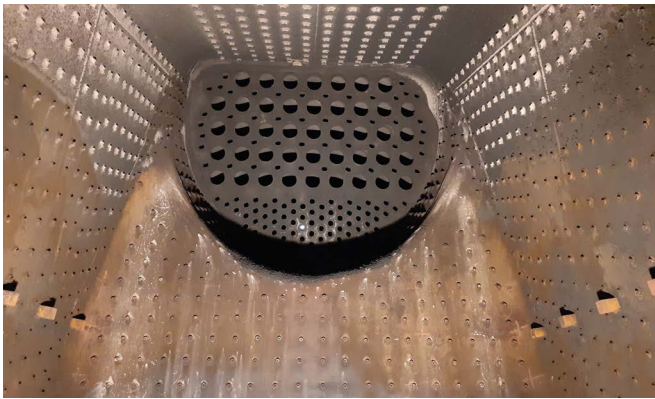
**Steam starts to emanate from the boiler, issuing from open wash-out plugs at the front.**



Workshop Volunteer, George Bee, had been busy testing each of the superheater elements before they were installed within the boiler tubes. After two hours at 250psi, the hydraulic test successfully demonstrated that the system was tight. This was the final step for our engineers before handing the boiler over to Ian Matthews for painting. The boiler was now be encased in its cladding whilst still in Darlington, before moving to be reunited with the wheeled frames at LMS in Loughborough. After months of hard work re-assembling many smaller components on the locomotive, *Tornado's* frames were lifted to receive the driving wheel sets during the last week of August. Installation of the hornstays and springs is now being finalised, before fitting the inside valve gear, pipework and sanders. The bogie and Cartazzi were initially left out to aid fitting springs and other remaining equipment to the frames, so as not to restrict access. The frames were then lifted again to receive the wheelsets. The freshly painted boiler was to be delivered to LMS in late September and lifted into the frames.

**Top: Locomotive Manager Richard Pearson shakes hands with Peter Cairnes from British Engineering Services at the successful conclusion of the steam test.**

**Right: A dry firebox tubeplate following the steam test.**



**Apple green paint starts to appear on the boiler.**

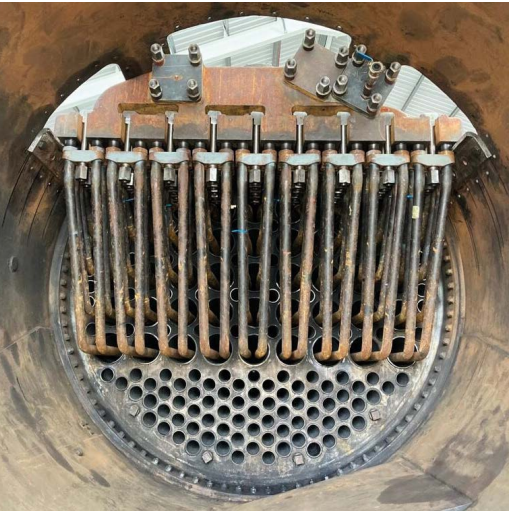


**Above left: The rig used to test the superheater elements.**

**Above right: Proof that the element under test is fit for purpose!**

**Far left: The superheater tubes in place in the header and flue tubes.**

**Left: The rig used to re-cut the safety valve seats.**



**With the boiler painted, Ian Matthews starts to apply lining to the boiler bands. TCC**



**ETCS UPDATE** by Rob Morland

The ETCS batteries were permanently wired up with cable management. These will be used with the Shore Power Supply to support testing of the tender mounted ETCS components.

The two small ADA Connection boxes (one inside and one outside the tender frames at the rear) were also wired-up. These contain the interface circuit to the new ADA, which is currently being built and we are hoping to install during the overhaul. The circuitry includes our standard over-voltage crowbar, which will disconnect the ADA from the power supplies in the event of a fault that results in an excessively high voltage being output. We are also now including an LED which detects that the trip has been triggered, enabling the crew to reset it at the next convenient opportunity. This can be done from the cess or a platform by simply opening the door in the cover panel.

Wiring to the replacement ES and AS Control Panels has been completed. This involved connecting to the panel the wires feeding the various roof-mounted lights and the steam chest temperature gauge.

A triggered LED has also been fitted to the fireman's side turbogen box. The LED is already installed in the new driver's side box that interfaces to the second turbogen.

The new cab roof light box was also installed. This will provide illumination for the Control Panels as well as the new ETCS and TPWS panels, which are mounted adjacent to ours on the driver's and fireman's side roof.



**ETCS batteries fully connected with cable management in place.**



**Outside ADA connection box with all components and wiring in place.**



**Above centre: Inside ADA connection box with wiring and over-voltage crowbar in place on the left.**



**Above right: Fireman's side turbogen box with new 'tripped' LED in place.**



**Fireman's side roof panel in place and wired with AWS/TPWS panel to the left of it.**



**ES Control Panel during final wiring.**



**AS Control Panel during final wiring.**



**ES Control Panel completed.**



**New LED light box to illuminate driver's and fireman's side roof panels.**

Visits to LMS last week and this have completed key electrical work on the cab. The most important achievement has been the installation of new wiring boxes under both crew seats, where our wiring has had to be significantly altered to free-up the space needed for the replacement TPWS equipment and new JRU system.

The fireman's side box is in roughly the same location as a previous enclosure, but now has three MIL connectors mounted on its lid to keep these out of the way of the JRU. There is also a harness from it directly to the AS I/O Panel. The cables that plug into the four remaining connectors come up from the frames below.

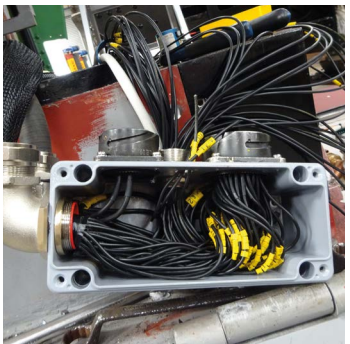
On the driver's side, the new TPWS equipment and wiring box leaves very little space for our systems, so we have adopted a different approach, fitting a new enclosure to the underside of the ES I/O Panel, where there is just sufficient space for it to clear the seat location upstand. This box also has three MIL connectors mounted on it, one for the sander indicator and the other two to connect to the ES wiring from the frames. From this box we also feed the power supplies from the ES I/O Panel to the TPWS and JRU, together with a new connection from our sander indicator circuit to allow recording of sander operation by the JRU.

Taken together, these two new boxes and their harnesses required the making of 174 new crimp connections.

On the tender, the ADA connection boxes have been completed and fully tested with a 28V power supply simulating the ADA output. The ETCS I/O Panel has also been fitted in its final location behind the handbrake handle to allow LMS to complete the fitting of the sealing plates around it.



**Andy Meredith attaching the new AS wiring box to the fireman's seat rear panel.**



**Above: Start of work to wire up the ES wiring box.**

**Left: Start of work to wire AS wiring box connectors.**





**Above: ETCS I/O Panel in place on the front of the tender.**

**Right: ES I/O Panel in place with new wiring box underneath.**

The tender electrical systems are now nearly complete. All the locker and gauge lighting is in place and working, and the GPS tracker has been wired up and tested. Only the wiring to the front piston valves, brake strainer and underframe lighting is left to add.

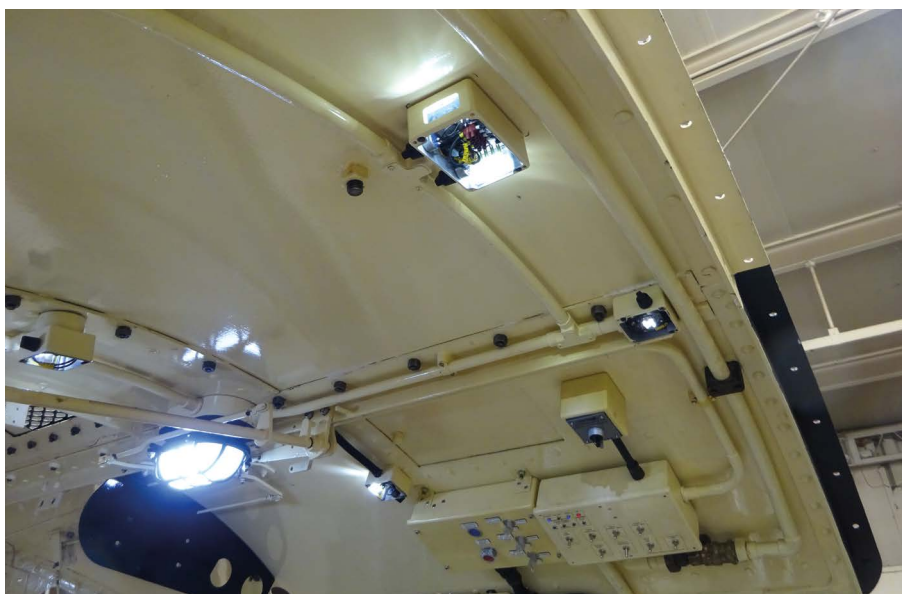
On the engine, almost everything is now complete and tested, as far as this is possible without the boiler in place and the tender coupled up to it. Andy Meredith has fabricated and fitted new conduit to supply the front underframe lights, which were displaced to make way for the new Balise antenna and TPWS/AWS antenna cables. One of the bulkheads has been relocated and new LED strips have been fitted on the driver's side. An additional cover is required for one of the underframe LED strips, the two centre marker lights are yet to be mounted and reconnected, and the steam chest temperature gauge probe will need inserting into its port on the driver's side steam pipe. The cab systems are complete and tested, with the exception of the steam chest temperature gauge and clock.

At DLW, Alan Parkin has made good progress assembling and testing the new ADA, which will be fitted to the locomotive once it is complete. All the tests at high speed and high load have been successfully passed, with the uprated test rig allowing continuous operation at the equivalent of 100mph and with the load bank set to loads of up to 196A.

**Centre left: Tender rear underframe panel installed with ES rear wiring box.**

**Centre right: Re-installed tender rear marker/tail luminaire.**

**Bottom right: Testing the ETCS I/O Panel luminaire. TCC**



**Cab lighting under test.**



## THE A1 STEAM LOCOMOTIVE TRUST IS YOUR LEGACY

You can ensure that Peppercorn class No. 60163 *Tornado*, Gresley class P2 No. 2007 *Prince of Wales*, No. 3403 *Highlander* 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 30 years that The A1 Steam Locomotive Trust has been 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 to reach the same level as those for the top UK based charities – where it represents around 40% of fundraising income – the Trust would raise an additional £80,000 per year. This would go a long way towards funding a five-year overhaul for *Tornado* or *Prince of Wales*.

Many Trustees have already made provision for No. 60163 *Tornado* and No. 2007 *Prince of Wales* in our wills by leaving a legacy to The A1 Steam Locomotive Trust. If you would also like to support the Trust through a legacy, then please take a look at [www.a1steam.com](http://www.a1steam.com) or contact our Legacy Coordinator who will talk you through the process on [legacy.coordinator@a1steam.com](mailto:legacy.coordinator@a1steam.com) or 01325 460163.

### How has Legacy funding been used by the Trust?

Legacies helped the Trust during the construction of No. 60163 *Tornado* by funding specific components and equipment in Darlington Locomotive Works. 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



**Newly painted in apple green, *Tornado* outside Darlington Locomotive Works, 2015.**

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](http://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](http://www.a1steam.com) or from our Legacy Coordinator.

So, please remember The A1 Steam Locomotive Trust in your Will and you too can help to ensure that No. 60163 *Tornado*, No. 2007 *Prince of Wales*, No. 3403 *Highlander* and our subsequent locomotives have a secure future on the main line for generations to come. **TCC**





TORNADO, A ROYAL NAMING by Keith Crabtree

On 19<sup>th</sup> February 2009 the newly built Peppercorn Pacific locomotive No. 60163 was named *Tornado* by TRH The Prince of Wales and The Duchess of Cornwall. This is my recollection of the day.

I was lucky to be one of many supporters to receive an invitation from the A.I Steam Locomotive Trust to attend the official naming ceremony at York Railway Station to be carried out by none other than HRH The Prince of Wales. Not wanting to miss any of the action I set off early from my home in Todmorden to travel by rail to York changing at Leeds on the way. Arriving early at York the station appeared to be very quiet with few passengers awaiting trains. It appeared to be just another day in the life of the busy York Station with many not having any idea as to what was going to happen as the morning progressed. It was quite a while before familiar faces started to arrive and gather on Platform 9 as this was going to be the location for the naming ceremony.

Slowly things started to happen as trolleys of planters full of flowers began to be wheeled onto the platform and placed at specific locations. A raised dais arrived and was put together in the middle of the platform. Armed police started to arrive to check out all who were on the platform as this was to be made a secure area and only invited guests allowed on. By now passengers on other platforms were beginning to wonder what was happening but they were kept well away from the secured area.

A small platform had been assembled for a detachment of musicians from the RAF Band who were about to play as the Royal Train came into the platform. Everything seemed to be in place when slowly and quietly No. 60163 made its unexpected appearance as it travelled from the NRM via Platform 9 and glided almost silently through the platform to the sidings at Holgate where it would be stabled in readiness for when it would come back into the with the Royal Train. No. 60163 was adorned with the Prince of Wales feathers and the newly attached nameplate covered over in readiness for the unveiling ceremony.

It was getting near to the appointed time for the Royal train and I took up my position along with Andrew Dow (former head of the NRM) and a lone BTP WPC at the Leeds end of Platform 9. Everything was very quiet with no trains in sight but in the distance a train could be seen, was this the Royal Train? It was moving very slowly as I think it was early and Royal Trains run to a very



The RAF band strikes up at York Station.



HRH The Prince of Wales meets the locomotive crew.

strict schedule and arrive to the second at the right time. It started to negotiate the various lines to reach our platform and we were now able to see the head code on the front confirming it to be the Royal Train. The band of the RAF started to play accompanying music for the occasion as the train approached the platform. Andrew Dow thought this was a good opportunity to get a photograph of the Royal Train approaching however the BTP WPC was at the end of the platform, slightly in the way so he asked her if she would bend down to enable him to get his shot of the train. She obliged by getting down on one knee and stayed there until the train went past, however, as the rear

coach passed the police inspector standing at the open door of the train said to the WPC, “Nay, lass, a normal salute would have been OK!” but he said it in a very funny manner with wry smile on his face. As the train came to a stop, I approached the inspector to say it was unusual to find an inspector with the sense of humour to which he replied, “When things are going well you can afford a bit of a sense of humour and things were going very well at this time”.

The focus changed to the disembarking Royal party to be greeted by the Chairman and Trustees of The A.I Steam Locomotive Trust and a presentation was made of a model of *Tornado* and coach in a glass

case to HRH. With the formalities of meeting over, the Royal party moved along the platform to the many invited guests, unaware that things were happening at what was the rear of the train (now to be the front). No. 60163 was on her way back from Holgate sidings ready to attach to the rear of the Royal Train to haul it to Leeds for the Royal party’s next engagement. This was all completed out of the gaze of the Royal party who were greeting the many invited guests. I shook hands with HRH and this was the first time I had met him but would turn out not to be the last. Finally arriving at the raised platform, the Chairman of the Trust, Mark Allatt, welcomed TRH and invited The Prince of Wales to do the honours of naming our new locomotive. HRH had a speech planned and as he opened it smoke from the chimney of No. 60163 drifted down and slightly engulfed the party and the prince wafted his speech to move the smoke away from the party with a smile on his face which elicited a small cheer from the crowd on the platform.

The speech part over the formal part was about to happen as HRH was invited to unveil the nameplate in its rightful place for the first time. He pulled on the cord to release the covering and *Tornado*’s newly fitted nameplate was uncovered and the naming was official. A loud cheer and applause greeted this action as our locomotive finally had its name. Just then two *Tornado* fighter aircraft flew over

the station as an acknowledgement of the relationship the RAF with the project and the Trust. The band struck up again as HRH was handed a dust coat to wear as he was about to get on the footplate for the first part of the journey to Leeds whilst HRH The Duchess of Cornwall went back along the platform to rejoin the train with Trustees invited along for the journey.

*Tornado* was now coupled to the Royal train to take the Royal party for their next engagement where they would disembark at Leeds station. With the official ceremony over it was time for me to make my way to Leeds and hopefully get there before the Royal train arrived.

Off to Platform 5 for me to catch an express service to Leeds and it turned out to be an HST unit. Waiting at the platform many of the passengers for this train was chatting amongst themselves about what had been happening on the other platform. As I got on the train again lots of the passengers were able to see smoke and were pointing in the direction of *Tornado* and wondering what had been going on with such a large crowd. The Royal Train now pulled by the newly named *Tornado* was allowed to set off from the station for its journey to Leeds. It got priority over the train I was to travel on, so I had an opportunity to take and decided to try and enlighten the passengers of what had just happened on the station so I approached the train manager and asked him if he would put

out a message over the speaker system about what had just happened but instead he handed me the handset to do it myself. So, in my best voice I greeted the passengers and said to all who were wondering what had been going on at York that it was the official naming ceremony of *Tornado*, the first steam locomotive to be built in this country for over 50 years. Our train was fast catching up with the Royal Train so I advised passengers, “If you look to the left you will see that we are passing the Royal Train with newly named *Tornado* at its head and if you look closely you will see HRH in the cab of the locomotive and I think if you wave he might wave back.” and this is exactly what happened (*the Prince of Wales was in the right-hand, fireman’s seat – Ed.*). What a nice gesture! He had a beaming smile across his face and was clearly enjoying his footplate ride.

Arriving in Leeds station I thought I would try and get a good vantage point to see the train as it came in but because I had my *Tornado* hi-vis on I was accosted by many attending to see the engine and the royal party, asking what time it was due in and I was lucky because I had the full itinerary of the arrival and departure times. Finally, the Royal Train came into view and the royal party was greeted at the station and after they left the station the train was allowed to travel back to York with *Tornado* at its head. These are my recollections of the day when HRH Prince of Wales named *Tornado*. **TCC**



The Royal Train en route to Leeds.





**Tornado's fully lined boiler awaits transportation to Locomotive Maintenance Services in Loughborough.**



## RAILTOURS by Sophie Bunker-James

It is with great disappointment that we have taken the decision to cancel the remaining tours for 2023. We worked tirelessly to provide a replacement for *Tornado*, to cover the dates that we had committed to this summer and early autumn. Unfortunately, it is not just that challenge that we have faced as we have endeavoured to resource carriages, a Train Operating Company to provide not only the advanced planning, but crucially drivers, firemen and guards for the dates, and catering staff and supplies as well. We have even faced late notice engineering works on the Welsh Marches train. We have tried every avenue, with much support from the supply chain who wished to help us, but this has proved to be too big a challenge to overcome, and we are beyond disappointed to need to cancel so many tours. Not only is it heart-breaking to let down our valued passengers, but it also hits the income stream that we rely on as a charity. All passengers have been contacted directly, and refunds issued.

'The Yorkshire Pullman' will be rescheduled in 2024, and the date for this will be confirmed shortly. Simply put, this particular train cannot run without *Tornado*, and so must be put back into next year. We hope that many passengers will stick with us as we intend to deliver the ultimate day out to Harrogate! We will also reschedule our visits to Dartmouth and the Welsh Marches in 2024 as well.

Our Railtours team is also looking toward brighter days and are already compiling a busy programme of trains to make up for lost earnings and allow more people to see and travel with the newly refurbished *Tornado*. It is anticipated that we will start to promote the 2024 programme towards the end of October. **TCC**



Alan Weaver

**Tornado with 'The Yorkshire Pullman' early summer 2019, seen here at Retford.**



Robin Coombes

**Tornado will return to the South West next year. Here she is on the centre road at Bristol Temple Meads in the course of working 'The Severn Coast Express' in May 2009, one of a series of tours circumnavigating the Severn estuary.**

## • SHED NOTICES •

### Michael Ware

Michael will be fondly remembered as one of the AI Trust's very first on-board sales Volunteers, selling at first, the small Tornado Merchandise items. Michael was introduced to the Trust by Covenantor Roger Aves at *Tornado's* unveiling Ceremony at the NRM back in 2008. Roger duly signed him up, and they both enjoyed a trip on the very first train hauled by *Tornado* in January 2009 from York to Newcastle. They were soon offering their Volunteering skills as part of the 'AI London Sales Team'. Michael loved supporting and travelling with *Tornado*; he was very popular, making good friends with many of the Trust's on-board Sales Volunteers, and so his sudden passing has come as a shock to us all. He suffered a massive stroke at home in June 2023, but despite cutting-edge surgery at the Addenbrooke Hospital Stroke Unit, Michael sadly passed away.

### Gareth Jones

At the beginning of September we received the sad news that our long time friend and footplate crew member Gareth Jones had died.

Gareth was one of the first members of DB Cargo's footplate crew to work on *Tornado*. From the initial attendance at a familiarisation event at the Great Central Railway, through to railtours across the UK, he was the most professional of colleagues and an asset on any train. He was always friendly, approachable, and happy to be part of our steam operations.

Gareth had a long and varied career on the railway. His association with the Tallylyn Railway is well known, featuring in Carson Davidson's 1953 film about the line when he was just 14 years of age and doing a lot of the driving, albeit out of shot! He joined BR at Machynlleth when of age, working as a cleaner and then through the grades to begin firing on the steam locomotives working to Aberystwyth, along the coast to Pwllheli and across the border to Shrewsbury. His stories of the time are legendary, such as when the young lads only cleaned one side of the engine thinking the foreman wouldn't notice. All was well until the engine was turned to cover for a failure and the reality of the situation was revealed!

Gareth worked for BR, EWS and then DB until the early 2000s, based most recently at Bescot in the West Midlands and near his home. He was involved with many operations of steam on the main line, perhaps most readily associated with GWR King Class locomotive 6024 *Kind Edward I*, and was also part of the team for the Golden Jubilee Royal Train in 2002. On retirement he became a Traction Inspector for special workings passing on his wisdom and vast accumulated knowledge to the younger generation of operators.

The steam world will miss Gareth greatly, and the Trust sends their deepest condolences to Gareth's family and friends, of which there are many. We know that he will be greatly missed and fondly remembered by all that knew and worked with him.



**Gareth Jones**

### Stuart Sellar

It was with great regret we were advised of the passing of Stuart Sellar Snr in the summer.

Stuart was a great supporter of the Trust and had been an active participant on many of the railtours that *Tornado* operated for the Scottish Railway Preservation Society (SRPS) or with their coaches. This ranged from FTR exams of vehicles, where he passed on a lot of knowledge to many of our team, to helping with water stops and the finer details of railtour operations. In more recent times he had been of great assistance with archive information for the P2 project and linking us to the last few folks in Scotland who could remember the locomotives in action.

Stuart had a long career with BR including a leading role establishing regular steam on the West Highland Extension, today known more readily as 'The Jacobite'. He was one of the founding fathers of the SRPS and helped establish the preserved railway at Bo'ness. Through his contacts within BR he was able to secure support and exhibits to ensure they were not lost to the scrap man. In later life he toured the world as a guide for Great Rail Journeys and has authored several books on the railways of Scotland at the end of steam.

All at the Trust send our condolences to Stuart's family,

friends and colleagues who we know will miss him greatly. Our Scottish operations will miss a familiar face, but his legacy will be remembered fondly. The SRPS also took the chance to name a locomotive after him which now acts as a fine tribute to a wonderful colleague.



**Stuart Sellar in the cab of Class D49 No. 62712 Morayshire.**



## AI PROFILE – No. 60141 ABBOTSFORD by Phil Champion

No. 60141 was the last of five AIs which appeared from Darlington Works in December 1948 to add to Doncaster's trio which joined the dozen AIs already in service and its construction was about a third of the way through the class. Works No. 2060 was painted in apple green with black and white lining and 'BRITISH RAILWAYS' lettering on the tender and left equipped with boiler No. 3934. It was one of the last few to appear in these colours. Initial allocation was to York shed (YK) and its first recorded run was the 14:12hrs Darlington-Leeds on 9<sup>th</sup> February 1949. It was on the same working six days later. On 6<sup>th</sup> October it departed Stockton at 13:38hrs with a seven coach Leeds-Newcastle train.



Peter Townend

**Abbotsford at the Outlet Signal, King's Cross Top Shed in 1957.**

Along with Nos. 60140 and 60149 it was transferred to King's Cross (KX) in October 1949. The first named train noted for No. 60141 was a down Pullman seen at Rossington. In May 1950 it moved to Copley Hill (37B) with three other AIs to join a trio there. That month, following a general overhaul at Doncaster, it was repainted in BR blue with black and white lining, being about halfway through the class to appear in blue. It was also one of the first to be named, four being named that month to follow the two already so treated. *Abbotsford* was one of 17 names to come from the NBR 'Scott' or 'Atlantic'

classes and the name refers to Sir Walter Scott's home on the banks of the River Tweed in the Scottish Borders. Workings were between Leeds and King's Cross. A repaint into BR green with orange and black lining was done in September 1951 after a heavy intermediate repair at Doncaster. No. 60141 was one of the first of these repaints, along with Nos. 60131 and 60139 done that month it joined the first three previous repaints.

The locomotive spent most of February and March 1953 at Doncaster undergoing a heavy general repair which included fitting its first replacement boiler, No.

29843. *Abbotsford* brought the up 'Queen of Scots' into King's Cross on 20<sup>th</sup> May 1952 and was to be seen a number of times throughout the 1950s on this train or departing the capital with its down run. It brought a Cup Final special into King's Cross on 2<sup>nd</sup> May 1953. A heavy train was the 430 ton 23:30hrs King's Cross-Grantham on 12<sup>th</sup> July. No. 60141 was noted three times on the up 'Bradford Flyer' between 1953 and 1956. Detailed observation of King's Cross departures between late September 1956 and January 1957 noted No. 60141 50 times, mainly on the 15:40hrs or 18:15hrs to Leeds but



Mike Mountford

**No. 60141 leaves Doncaster with a Pullman train on 27<sup>th</sup> May 1961.**

also on the noon down 'Queen of Scots' and the 07:50hrs King's Cross-Newcastle/Bradford. Other 'namers' included the up 'Yorkshire Pullman' on 20<sup>th</sup> June 1959 and the 09:10hrs 'White Rose' of 26<sup>th</sup> September.

The locomotive visited 'The Plant' four more times during the 1950's for general overhauls, October 1953 (30 days) leaving carrying boiler No. 29834, March 1956 (38 days), fitted with boiler No. 10595, September 1957 (30 days), boiler No. 10636 and July 1959 (36 days), boiler No. 29812, it was also one of a number of AIs to lose their electric lamps and Stones turbo-generator. The early 1960s found *Abbotsford* working to Newcastle as it was serviced at Gateshead shed on 16<sup>th</sup> September 1960 where it was

recorded several more times up to 1962. 'Namers' to and from west Yorkshire included the down 'West Riding', the up 'Harrogate Sunday Pullman', 'The Yorkshire Pullman', 'The Queen of Scots' and 'The White Rose'. However, on 1<sup>st</sup> November 1962 it failed at Retford with the 18:12hrs King's Cross-Leeds. It was back in the North East on 4<sup>th</sup> January 1963 with the 17:35hrs King's Cross-Newcastle which it worked throughout. Next day it was on the up 'Queen of Scots' but this time from Newcastle to Leeds. Copley Hill's shedmaster was quoted in Peter Townend's book *East Coast Pacifics* as saying that No. 60141 was unique among his Darlington-built AIs for its good riding qualities. It was considered one of the shed's best AIs in the early 1960s.



Chris Nettleton

**Abbotsford at Gateshead MPD in 1964.**



Eric Vogel

**Abbotsford reverses out of King's Cross on 1<sup>st</sup> September 1962.**



Michael Denholm

**Nearing the end, No. 60141 at Gateshead on 16<sup>th</sup> May 1964.**

Its final overhaul and boiler change at Doncaster were undertaken during March 1961, acquiring its final boiler, No. 29883, thereafter maintenance moved to Darlington for the AIs. A move back to York North (50A) with four other AIs came in September 1963 to join the nine already shedded there. It was seen many times being serviced at Gateshead shed. On 20<sup>th</sup> and 24<sup>th</sup> December it brought in a train originating in Manchester into Newcastle as it did on 12<sup>th</sup> June the next year. On 6<sup>th</sup> April 1964 it hauled the 2G85 Newcastle-Berwick stopping train, a common AI working by now, and the Berwick-Newcastle 'stopper' on the 8<sup>th</sup>. The final train recorded was on 13<sup>th</sup> June when it ventured into Scotland and hauled the 1N26 Glasgow -Scarborough from Edinburgh to Newcastle.

It was one of two withdrawn on 5<sup>th</sup> October 1964. With 19 gone No. 60141's withdrawal was nearly halfway through the elimination of the class. Its service life of 15 years 10 months was 7½ months longer than the AI average. Seven different boilers had been carried, all of diagram 118 design. It was sold to A. Draper of Hull in December for scrap.

**TCC**

This history was compiled by Phil Champion based on the RCTS book 'Locomotives of the LNER Part 2A', a database supplied by Tommy Knox of the Gresley Society, 'The Power of the AIs' by Gavin Morrison and various published photographs. Revised and updated by Graham Langer, July 2020.





**WILLIAM COOK**



Driving wheels, horn blocks, frame stays, cylinders, blast pipes and superheater headers are just a few of the castings required by a steam locomotive. Using modern CNC pattern making techniques and 3D printing technologies, the William Cook group's modern manufacturing facilities can produce these as single items without exceptional difficulties.

To service this niche market, William Cook has created a special marketing arm which understands the nature of the components involved, their application and function.

William Cook began its association with the heritage rail industry through its heavy involvement in the construction of the A1 Pacific 'Tornado' the first new build in the UK since 'Evening Star' in 1961. Subsequently, William Cook has manufactured a large variety of castings for a large number of steam locomotive projects.

William Cook also provides an extensive bogie and coupler repair and overhaul service, of particular use to the heritage rail operator.

# Heritage Rail

## Components and systems

The William Cook group designs, manufactures and overhauls components and systems for applications where safety and reliability are critical. Whether public or private sectors, UK or worldwide, William Cook customers all have one thing in common: they cannot afford any risk.

For nearly two centuries, William Cook's core competence has been casting various materials. Today, most of William Cook's components and systems for defence, rail and other industries call for high-specification alloys and super alloys, the casting of which remains a William Cook speciality.

Metal castings always formed a major element of steam locomotive construction, and, in the present day world, where steam locomotive restoration and new build is becoming of growing importance, the skills of the founder are once again being called into play to help create these magnificent machines.



### REFERENCE LIST

#### **B17 Steam Locomotive Trust**

- Leading wheels
- Axle box
- Cannon box
- Motion lever brackets
- Carriers
- Horn blocks
- Hanger brackets
- Frame Stays

#### **The Princess Royal Class Locomotive**

- Driving wheels

#### **Class G5 Locomotive**

- Driving wheels

#### **P2 Steam Locomotive Trust**

- Driving wheels
- Piston crosshead
- Horn blocks
- Safety brackets
- Spring hook brackets
- Cartazzi wheels

**James Bestall - Sales Manager:** +44 (0) 7709 483 970

**William Cook Cast Products:** +44(0) 114 273 1252

**Email:** jbestall@william-cook.co.uk

**Web:** www.william-cook.co.uk

#### **London & North Western Railway Heritage Co. Ltd**

- Overhaul of 4 BT43 commonwealth bogies
- Drop-head buckeye coupler overhaul
- Re-manufacture of swing hangers and cross beams for commonwealth bogies

#### **Venice Simplon Orient Express**

- Axle box overhaul and re-manufacture
- Drop-head buckeye coupler overhaul
- Overhaul of buffers, tailpins and spring hangers

#### **North Yorkshire Moors Railway**

- Drop-head buckeye coupler overhaul
- Overhaul of tailpins and spring hangers

#### **Island Trains**

- Overhaul of wedgelock couplers for 1938 Tube stock

#### **Railway Preservation Society of Ireland**

- Drop-head buckeye coupler overhaul

#### **Great Western Railway Society**

- Driving wheels
- Bogie wheels
- Suspension girders





## P2 ENGINEERING UPDATE *by David Elliott & Terry Graham*

### General

Continuing efforts to get *Tornado* back into service has severely affected progress on P2 since its move to the new workshop.

### Boiler

The first of our two new boilers, intended for No. 2007 *Prince of Wales*, is due to be delivered this autumn. A team, lead by Chairman Steve Davies, went to Germany during the first week of September to meet with the engineers at DB Meiningen to discuss progress.

As the pictures show, the work is at an advanced stage. Given recent issues with *Tornado's* boiler, all parties are being careful to ensure all works are to the correct standard and to that end, the involvement of the certification body, Technischer Überwachungsverein (TÜV), is important.

The boiler is now all but ready to receive the tubes, but before this is done all the necessary certification paperwork, material tests and so forth need to be completed. Once these activities have been undertaken to the satisfaction of TÜV, work will move swiftly on to the installation of the tubes and then a full hydraulic test.

### Frames

Replacement Philidas type nuts have been supplied but will not be fitted until resources are available.

### Cylinder block

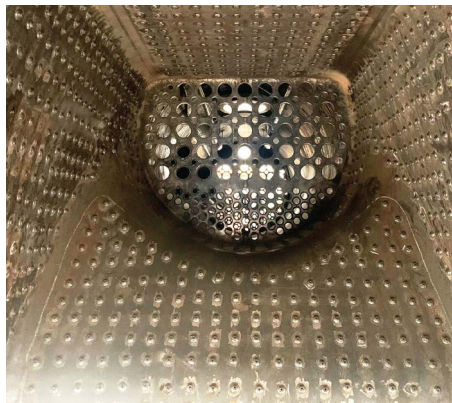
The cylinder block has been set up in the hydraulic test chamber at Howco. There have been sealing issues with a couple of cylinder cover gaskets as the pressure is increased which are being resolved but, unfortunately due to the design of the remote test chamber the cylinder block must be removed from the chamber after each session. After a successful test the cylinder block will be prepped for heat resistant paint.

### Pony Truck

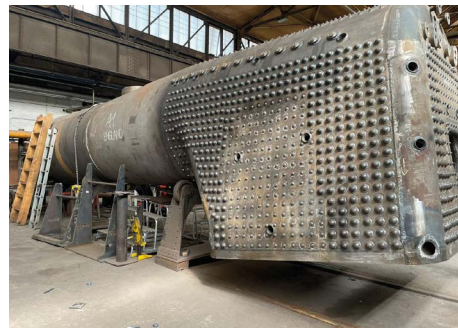
No change in status. The replacement manganese liners still require machining to suit the pony truck fabrication.

### Tender Frames

Manufacture is substantially complete. David Elliott and Alan Parkin have carried out an on-site inspection of the frames and detail components.



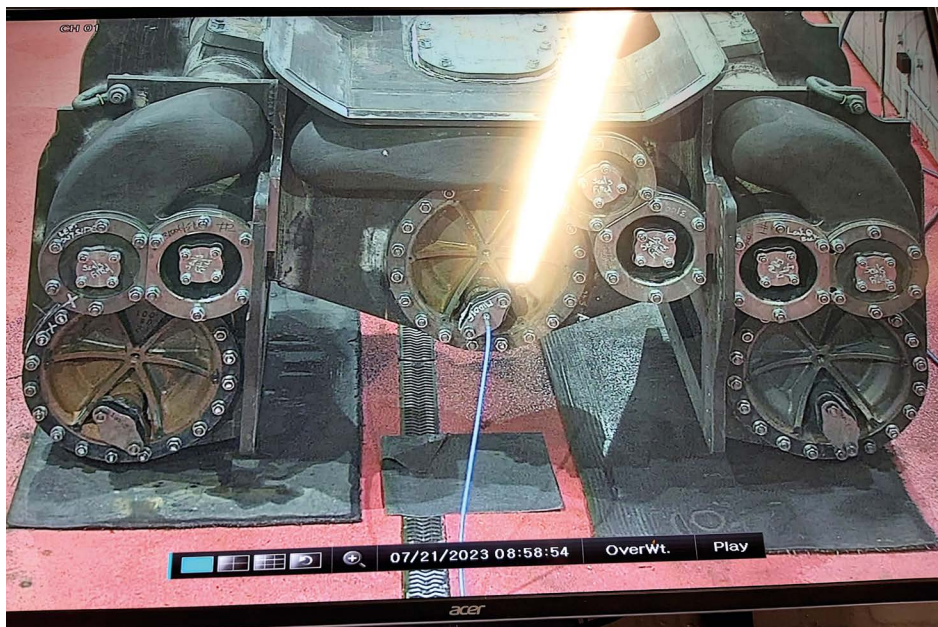
**Above: The interior of the new boiler's firebox.**



**Top right: The exterior of the boiler showing the revised pattern of fixed and flexible stay heads.**



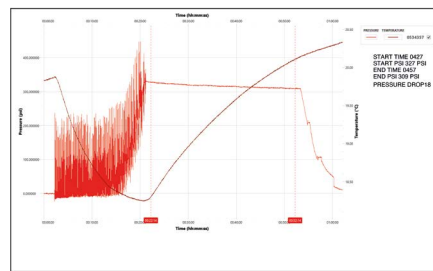
**Right: Flue tubes ready for installation.**



**A screenshot of the monitor observing the hydraulic test – note all the blanking plates in place.**

**STOP PRESS!** –The cylinder block has now passed its hydraulic test! This positive news comes after two minor leaks had to be attended to, as well as a troublesome blanking plate.

Howco drained the monobloc after the penultimate pressure test and turned it upside down to try and get better access to the internal pocket where they believed a leak was occurring. They managed to get a small camera into the pocket and the team re-fused two areas of weld that looked suspect on the camera. To ensure a suitable fit an O-ring groove has been provided on the blast pipe flange so it gave a good seal



**The Pressure Test Chart following the hydraulic test.**

to the blanking plate. It was then blanked off again and re-tested. **TCC**

## Covenantors' Diary *by Paul Bruce*



We are pleased to confirm that we have a new member joining the team in Darlington. With *Tornado* nearing the end of its overhaul, Jacquie Nicholson joins on 25<sup>th</sup> September, taking over from Dawn as the Trust's new Office Manager. Jacquie has a strong history in the charitable sector with a track record in organisational, project and finance management.

She will join Janet Preshous who has

been a great addition to the team since she started at the beginning of this year. Janet has proven to have a real passion for people and customer service as those who have been in touch with her will have found, and she will be complemented by our new colleague. As we continue to develop our new location, I'm sure you will join us in welcoming Jacquie to the Trust.

The Trustees would like to place on record our great appreciation for the support given in the office by Charles Tremere and Jackie Morrice especially during the transition period. Together

with Janet they have performed wonders to keep things going over the Summer in Darlington. **TCC**



**Janet Preshous.**

## P2 DEDICATED DONATIONS UPDATE *by Liz Gibson*



Despite being rather gloomy about the weather last *TCC* I didn't really expect another three months of rain and below average temperatures! In case my musings angered the weather gods, I shall steer clear of anything like that and instead pick a completely different range of items which are still available to be sponsored!

Buoyed by the news that *Tornado's* wonderful wheels have been reunited with the frames, there are a whole range of items available for the P2 which will help get those turning as soon as possible.

- For £36 you can sponsor a Manganese Steel Liner for the Cartazzi Axlebox
- The Castellated Nuts for the Pony Truck are £160 for a set of eight
- If you'd like to help things run smoothly, the Cartazzi wheelset, axlebox and bearing assembly is £700 while a roller bearing for a driving coupled wheelsets is £1,050
- For those with deeper pockets, a whole coupled axle could be sponsored for £4,800!

As always, there are many more parts available.

If you're keener on process than function then how about narrowing things down by looking at a type of manufacturing method? Parts for the engine can be:

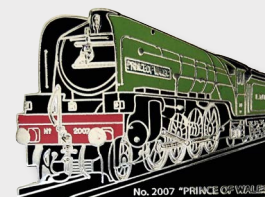
- Forged
- Welded
- Cast
- Laser cut
- Machined
- Rolled

...and all then expertly fitted together at the Works in Darlington. Now the new building is open for visitors, why not come along and see how all the wonderful contributions, sponsorship and donations come together to build an engine? Whatever the cost, size, placement or function, every sponsored item gets us one step closer to bringing this incredible locomotive to life. If you're interested in finding out more, please email Liz Gibson at **dedicated.donations@alsteam.com** and ask for more information about the parts available.

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@alsteam.com**.

**TCC**

## Attention all Club Members! - Exclusive badges are available to purchase -



**The Boiler Club, The Mikado Club, The Cylinder Club, The Motion Club, The Tender Club**  
**All Club Badges £5.00 each** (Badges shown actual size)

To purchase your badge please send a cheque for the relevant amount made payable to 'The P2 Steam Locomotive Company' and send to The Al Steam Locomotive Trust, Darlington Locomotive Works, 9 Bonomi Way, Darlington DL3 0PY.



## •WORKSHOP NOTES•

### Covenantors visit DLW2



**Above left: Supporters gather to listen to Steve Davies.**

**Right: Steve Davies, David Elliott and Ed Laxton following the presentation of the latter's apprenticeship certificates.**



Over 200 people came along to the very first Open Day at the new Darlington Locomotive Works. Supporters and their guests braved torrential rain to get the first look at the inside of the new home for the Trust. Chairman, Steve Davies, addressed the crowd, delivering an overview of the building and an update on our locomotives. We were delighted on the day to present Ed Laxton with his paperwork on completing his Machinist Apprenticeship, and David Elliott (long time Trust Engineering Director, now focused on P2 Engineering) delivered a poignant speech.

It was a pleasure to see so many of our supporters and Covenantors at the Works, and the energy on the day was fantastic - the building cannot fail to impress! The generosity of those in attendance was incredible and we raised thousands of pounds in just a few short hours. A huge thank you goes out to those who attended, to all of our supporters for their ongoing commitment to the Trust.

### Hornby launches *Prince of Wales* model

Hornby have long supported the aims and ambitions of The A1 Steam Locomotive Trust and our long-standing relationship has ensured that the Trust has benefitted financially from this arrangement. Following the production of Hornby's 00 gauge model of *Tornado*, the Trust has received a percentage of the retail profit as a royalty payment, an arrangement that has been perpetuated with the arrival of their superb model of No. 2007 *Prince of Wales*.



**Hornby Model of No.2007 *Prince of Wales*.**

Having unparalleled access to the drawings and the actual locomotive has enabled the design team at Hornby to produce one of the most accurate commercially made models available. We were delighted to welcome a team from Hornby to the new Darlington Locomotive Works where they were able to unveil the new Hornby model of the locomotive. We'd like to wish them the best of luck with the release of this new model and look forward to seeing the team in Darlington again soon.

### Three-Peaks Challenge

Rob Forde, Jodie Mitchell, Caroline Crewther, Graeme Bunker-James, Ben Mason, Paul Thomas, Tom O'Keefe & Roger Hall from the East Coast Digital Programme joined the Three-Peaks Challenge by Rail 2023 to raise money for the Railway Children charity. This involves climbing Snowdon, Scafell Pike and Ben Nevis in quick succession. Links between the mountains are mainly via train with some walking/road transport.

The challenge starts with a train journey from Crewe to Bangor before an overnight climb of Snowdon. About two hours sleep followed on the connecting train to Ravenglass and then it's on the Ratty up to the top of the hill. Then followed an eight km fell walk to get to Scafell Pike, made on one of the hottest days of the year.

There is a little more time to recover after Scafell Pike while regaining the train at Ravenglass, having supper as you round the Cumbrian Coast, and then it's about four to five hours more sleep. As the tallest mountain in the U.K., Ben Nevis was never going to be easy and it's eight km uphill all the way. On its own it's a challenge, but after two mountains, a fell walk and only half a dozen hours sleep it is formidable.

Afterwards Graeme stated, "I would have to say it is the hardest physical challenge I have ever done. This may be due to a lack of preparation by me but firing a week solid on big main line tours is much easier!"



**The team on the top of Ben Nevis.**

### Japanese railway journalist visits DLW



Hiroataka Michino, a steam enthusiast and railway writer in Japan has written an article about the Trust and the P2 for the monthly railway magazine 'Tore-in' ('Train' with Japanese pronunciation) published by Eriei, Inc. 'Tore-in' magazine is currently running a series of articles of LNER passenger locomotives, and this is the third article in the series. The first one is an introduction of A1/A3 Class, the second one is the story of the A4 Class. In June, his co-writer Yusuke Tanikawa paid a visit to Darlington Locomotive Works to view progress on No. 2007. Steve Davies was on hand to give our guest a guided tour round the works and was able to explain in detail the design work undertaken by David Elliott to improve on the original Gresley machine.

**Above: Steve Davies, Dawn Phillips and Yusuke Tanikawa at Darlington Locomotive Works.**

**Left: A beautiful scale model of *Locomotion No. 1* built by our guest on the running board of the prototype.**



P2 FUNDRAISING PROGRESS Sophie Bunker-James



Gresley class P2 No. 2007 Prince of Wales outside DLW.

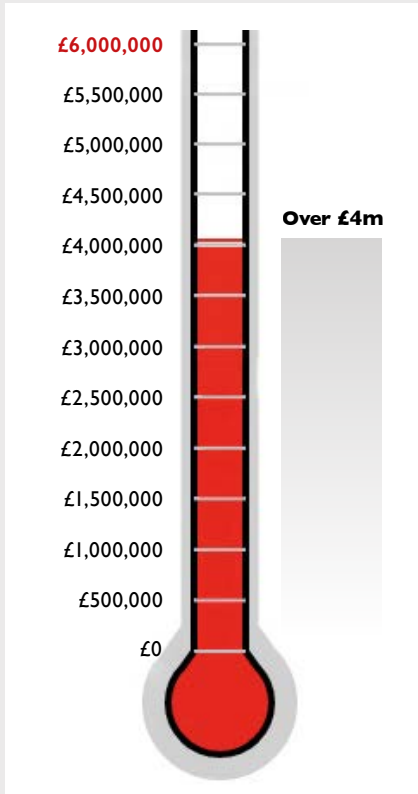
It was a delight to see so many of you at the recent Supporters Open Day at the new Works, and your generosity on the day was remarkable, helping to raise thousands of pounds in a few short hours. The positive energy was infectious: despite the atrocious weather, enthusiasm within DLW couldn't be dampened! Thank you all for your continued support.

As we head into autumn, we eagerly anticipate the delivery of the monobloc, tender frames and boiler. As such, the fundraising Clubs for these components will soon close. Before they do we urge all of our supporters to consider joining up to help us get closer to reaching our targets, and also for your chance to attend the exclusive Club days dedicated to each of these important and impressive parts for No. 2007.

Our Covenantors remain the

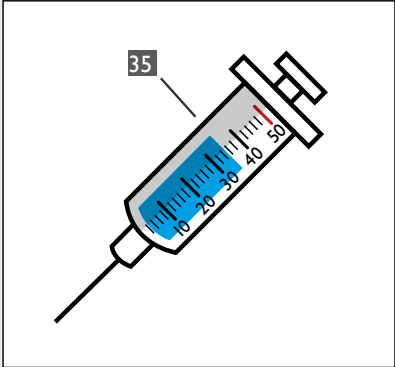
backbone of the Trust. Your monthly donations are vital to our planning, and the progress of the P2 build. With *Tornado* returning to the rails, the engineering team at Darlington Locomotive Works will revert focus to *Prince of Wales*. In the coming months, the freshly delivered components will be lifted and secured to the frames, making the locomotive look substantially complete, but as we know from building the A1, we still have a long way to go! As we often say, we can only build the engine as fast as we receive the funds. Next on our shopping list is the valve gear, and a dedicated Club for this will launch this autumn.

We recognise that many of our Covenantors making their regular monthly donations also make one off donations through the year, and we are grateful to each of you for your generosity.

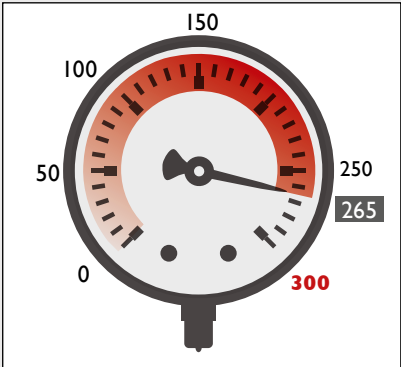


Donated to date.

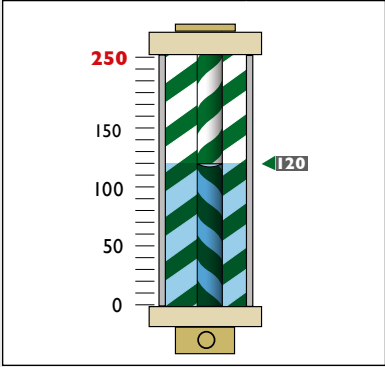
Despite the challenging economic climate, we have seen an appetite to donate larger sums to the Trust recently, and to that end have developed 'Top Link', please see the enclosed leaflet for more information. In the spirit of fairness, we will be retrospectively including donations from January 2023 in the annual total and so we already have around 20 members as this initiative launches. There may be Supporters who are close to reaching the membership threshold – if you think you



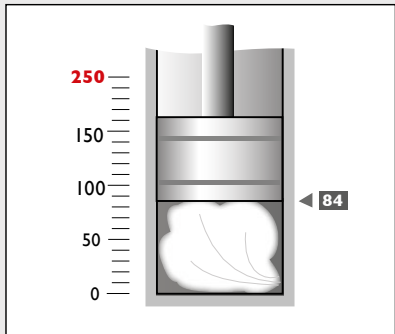
Injectors Club - 35 members.



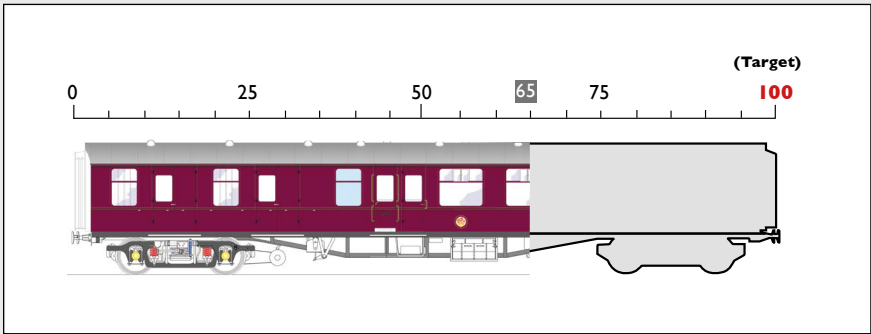
Boiler Club Gauge - 265 members.



Tender Club Gauge - 120 members.



Monobloc Club - 84 members.



The P2 Coach Appeal - 65 supporters.

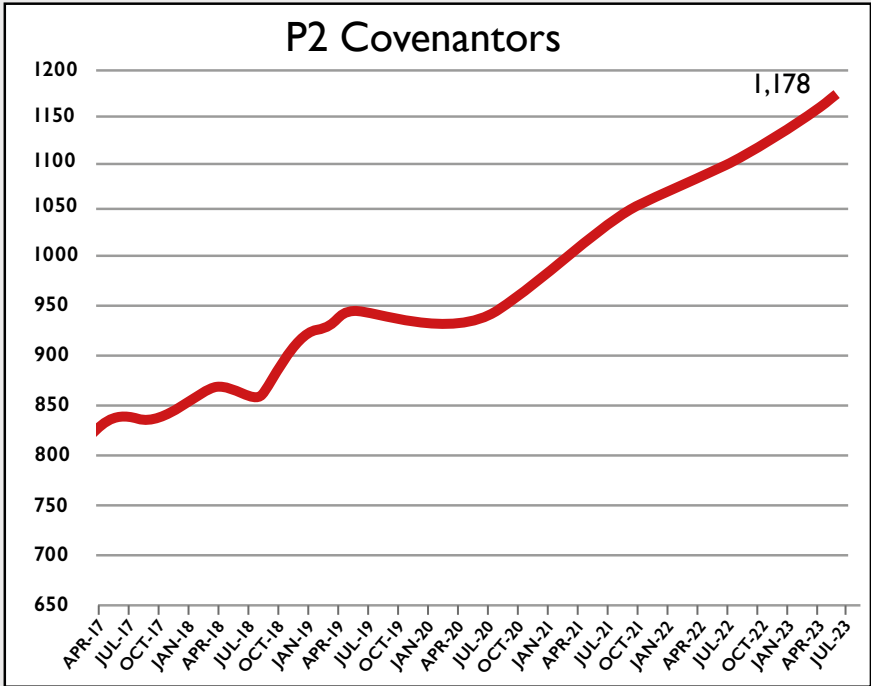
may be on the cusp and would like to support this campaign, please call Janet Preshous, our wonderful Supporter Administrator, who will be happy to assist you in reaching the next 'Top Link' level.

OTHER WAYS TO HELP

**Legacies** - This is not a subject that we like talking about, but the lasting impact from leaving a gift in your will is considerable. Leaving a legacy can help secure the P2's future for generations to come. See the article devoted to legacies. Please contact [legacy.coordinator@alsteam.com](mailto:legacy.coordinator@alsteam.com) or phone 01325 460163 for more information (see page 13).

**DLW Open Days** - Open Days at the new site (Darlington Locomotive Works, Bonomi Way), have restarted on the first and third Saturdays of each month, 10:00hrs to 15:00hrs.

**Covenantors** - From as little as £10 per month, your regular donation makes a huge difference. If you haven't already done so, please consider joining us today and become a part of something special. Visit our website at <https://www.p2steam.com/support/regular-donations> for more information.



**Social Media** - We're social creatures so please do follow us on Facebook, You Tube and Instagram and like us on Twitter. Don't forget to like, share and comment on our posts too as this helps our content reach a wider audience. **TCC**

CLUB FOCUS

The Boiler Club

The boiler is the beating heart of a steam locomotive, and in 2019 the Trust placed a £1m order with DB Meiningen for two new boilers – the first of which is designated for No. 2007 *Prince of Wales*, and the second as a 'spare' boiler for use on both the P2 and A1 in order to establish a rotation and reduce the time required for overhauls.

The Boiler Club was established to raise £600,000 for the first boiler, requiring 300 supporters to each donate £2000 (in up to 16 payments by standing order). Earlier this year we updated supporters that we had raised over half a million pounds for this component, and we are now 90% of the way to reaching our target. As we approach delivery – and thereafter the arrival of the invoice! – we ask you to support this essential component if you can.



First new boiler being assembled at DBM.



## DLW2 UPDATE *by Paul Bruce*

I am pleased to say that we are settling in very well at what has very quickly become our new home with up-to-date facilities, and space to move around. A world of ground source heat pumps and digital control panels is certainly proving to be a new experience! Not forgetting our old home, of course. With the old works just across the Bishop Auckland line we are able to see the daily progress on its major redevelopment as part of Darlington Borough Council's Railway Heritage Quarter.

The urgency of the move from Hopetown Lane and the work on *Tornado's* boiler has meant that many of our belongings are still in boxes but volunteers are on sorting the stores with new racking to give a sense of order. Hats off to Richard Pearson, Terry Graham and the team for the hard work there.

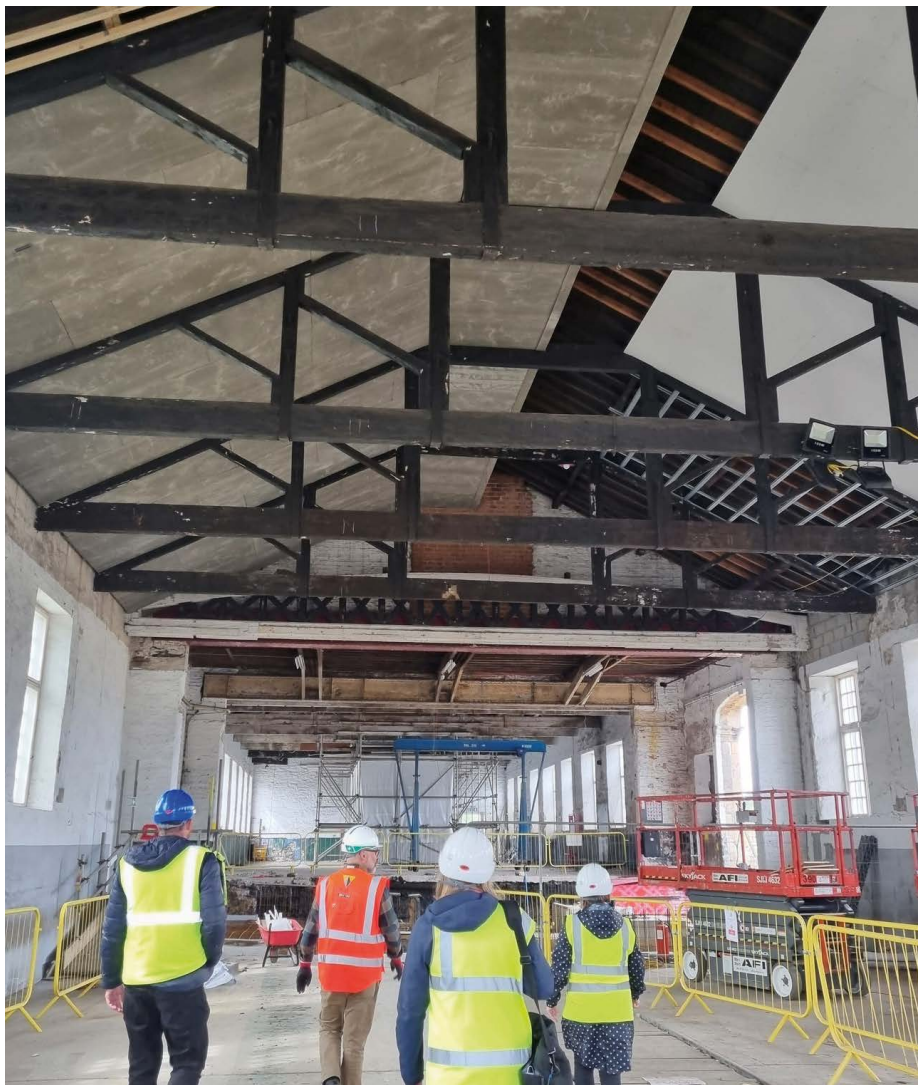
Looking slightly further out, plans are in place for the first stage of track laying in October. The army's 507 STRE regiment will have a weekend with us to extend the track from the shed up towards Otley Terrace bridge. In preparation for that, we will be recovering the track from the south end of our old site in September. We will also have two turnouts cascaded from the Northumberland Line project which were lifted on 10<sup>th</sup> August. We are almost certainly going to need the bearers which won't be cheap so, please, do consider donating to The P-Way Gang if you haven't already and if you are able. **TCC**

**Above right: Work is progressing rapidly around North Road Station, right in the centre of the new Heritage Quarter.**

**Right: Our old home, Hopetown Carriage Works, being redeveloped. The partition wall between the north and south ends has already gone!**



**Above: Piles of concrete sleepers delivered to the Whessoe Road site in preparation for tracklaying at the works.**



## FROM THE ARCHIVES *by Graham Langer*

**Summer 2003** – A trial fit of the Cartazzi axle revealed an inconsistency with the drawings and it became clear that Doncaster had not modified these to allow for the fitting of roller-bearings which required an increase in tolerances. All the valve gear forgings were complete, and machining was underway. The cannon boxes had been final-fitted to the coupled and bogie wheelsets and the bogie frames were at North View Engineering for final machining of the hornguides. In other news, Graham Nicholas had joined the team as the Trust's quality consultant.

**Summer 2008** – Finally, after months of frantic effort at Darlington Locomotive Works, *Tornado* made her first moves in steam on the short length of track outside her home. Nick Broderick, guest editor of *TCC*, summed it up, "Few heritage railway projects have caught the public's imagination quite like 'A1' No. 60163 *Tornado* has, confirmed by the deluge of national media that converged on Darlington on 1<sup>st</sup> August for 'our' 'Pacific's' first official moves."

**Summer 2013** – Having resolved the problems with the air pumps, *Tornado* immediately went back to work and completed a great trip with 'The Elizabethan' and a tour of Scotland as



**On the occasion of *Tornado's* first moves at DLW, David Elliott stands proudly in front of the locomotive he devoted so much time to creating.**

soon as she was back in traffic. She also called into York for servicing on 3<sup>rd</sup> July, the first day of 'The Great Gathering' of all the surviving A4 Pacifics, organised by our current Chairman Steve Davies, then Director of the NRM.

**Summer 2018** - The big headline was the placing of *Prince of Wales* on its completed wheelsets and rolling

it out into the sunlight at Darlington Locomotive Works; we never had this opportunity at such an early stage during *Tornado's* construction and it was a thrill to be able to stand back from the locomotive and absorb its immense presence outside the workshop. In other news, Graham Nicholas had accepted the role of Head of Professional Engineering. **TCC**



**No. 2007 stands outside Darlington Locomotive Works, Summer 2018.**



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

## **WILLIAM COOK CAST PRODUCTS**

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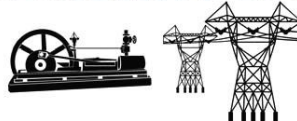
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\* All information correct at the time of going to press September 2023. For up-to-date information and dates please check the website [www.a1steam.com](http://www.a1steam.com).

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Darlington Locomotive Works is normally open to the public on the first and third Saturday each month (10am – 3pm).

Access to the works is in association with 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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