



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. 77 Winter 2026



Despite the dismal weather, nothing could dampen the spirits of those who witnessed the arrival of the P2's boiler at Darlington Locomotive Works on 9th December.

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EDITORIAL by Graham Langer



As we stride into 2026 it feels like it will be a vintage year for the Trust (pun intended) with *Tornado* making a raft of new friends at our main line operating partners in Tyseley and demonstrating her prowess on the most challenging of routes. The value of having our own base is yielding multiple benefits, not the least of which is the incredible 'bull shine' applied to No. 60163 by our volunteers between her outings, she really is gleaming like a new pin. The ability to condense all our engineering requirements into one location cannot be underestimated and the opportunities to exploit our new base and all its trackwork are many.

The arrival of No. 2007's boiler on 9th December was the best Christmas present the Trust has had in many years and means that we now have all the major parts for the locomotive under one roof, allowing meaningful progress to be planned. We have the advantage of having a complete set of boiler cladding components ready to fit, something that was still a hurdle to be cleared when we reached this stage with *Tornado*. Please see the 'Raising Steam' appeal on page 20. One of the many ancillary projects that needs to be moved forward is the development of the Axle Driven Alternators for both *Tornado* and *Prince of Wales* and we have launched a fund-raising effort to progress this, further details on page 21.

Sadly, every passing year is marked by the loss of one or two members of the Trust community and this winter has witnessed the passing of three of the best, Terry Greaves, Ian Jefferson and Andrew Hemming. Terry was more or less a fixture at DLW and I well remember baby-sitting *Tornado* through the graveyard shift with him during the night before the locomotive's unveiling, in steam, to Covenantors for the first time in 2008. He never seemed phased by anything and was eternally optimistic. Charles Tremeer honours his memory on page 5. Ian Jefferson was a life-long railway enthusiast and had supported the work of the Trust for decades, always attending the annual Convention which involved a long haul for someone living in Devon! His coffin was adorned with an 'LNER' wreath which speaks volumes about the man. Andrew Hemming was also a long-term contributor to the Trust, actively involved in the construction of No. 60163 and another staunch supporter who will be greatly missed.

As ever, I must pay tribute to the efforts of our paid staff and volunteers in keeping the show on the road rails! Sadly we have seen Poppy Warwick move on following the completion of her apprenticeship with the Trust, she proved to be a popular and valuable member of the office team and will be missed. However, we seem to be enjoying an influx of willing and able volunteers with a wide range of differing skills and the weekend format of the open days is also proving to be a huge success. Our Covenantors and volunteers are the bedrock of this organisation, the latter contributing thousands of hours each year to ensure we keep moving forward, whether it be as a Works guide, a board official, a support crew member or train host, ensuring that the precious funds donated by our donors are effectively spent where it counts – please note that we are still looking for a picture editor and archivist! **TCC**



A couple of images of *Tornado* in the Works, polished to perfection by our hard-working volunteers.

FROM THE CHAIR by Steve Davies



With the dust of the Stockton & Darlington Railway Bicentenary celebrations now firmly settled it is interesting to detect the Trust now getting into the kind of steady routine we always hoped that our new Works would enable. There is definitely a confident rhythm to the various activities which go to make up our day, helped by the gently improving financial situation (and we look forward to making that final CBILS loan payment in just three months' time!) although I do not wish unnecessarily to exaggerate the speed of our financial recovery – ergo we still need your support!

We are a comparatively small but complex organization, and it is important that we keep a clear view of just what it is we have to do to make it all work. In pursuit of clarity, I find it helps occasionally to stand back and compartmentalize the various activity strands and to bring balance to it all, and to adjust priorities as circumstances and funding demand. If I had to summarize the workstreams, it would be fundraising and income generation; operating and maintaining the AI; building the P2; maintaining and operating the track infrastructure; the management and nurturing of our staff (salaried and volunteers); strategic planning; and, of course, underpinning all of this with effective internal and external communications. At any one time one or

more of these activities takes a greater priority than the others and in that respect there is no doubt that the P2 is currently out in front. That does not mean other activity is neglected but the Board currently judge that delivering the P2 deserves a significant amount of our time, attention and resources. To that end I am delighted to report (already well publicized) the delivery of the new boiler from Meiningen and this is already attracting a lot of positive media coverage. Planning is also well advanced to fit the monobloc into the frames (not as straightforward as you might think) with much engineering input (and collective head scratching!) from a broad range of people, not least our dedicated band of volunteers who have taken on much of the preparatory work with alacrity. It will be a momentous moment and a fitting tribute to the design genius of David Elliott finally to see it in place.

As I alluded to earlier, the positive engineering situation we find ourselves in has had the happy impact of attracting new, very well qualified volunteers, and this will help underpin engineering work across a broad range of activity. Sam Wake is a fitter for Arriva Train Care at Tyne Yard and is working principally on the AI and Peter Scott is a tool maker for Husqvarna at Newton Aycliffe. You may also be aware that we have said goodbye to our Engineering Director, Ben McDonald, whose other life priorities have resulted in his decision to move on. We wish Ben well and thank him for his service. Accordingly, we are now actively recruiting his successor.

Looking ahead, *Tornado's* next main



The train trolley now departing from DLW.... Or is the Colonel's new staff car? The DRPS Wickham trolley has proved a useful adjunct to our activities.

line foray is on Saturday 28th March when she will run from Birmingham to Carlisle and return, outwards over Shap and back via the Settle & Carlisle. This should prove to be an outstanding day out, especially as it has been advertised that for the hill climbing sections there will be no diesel on the rear! The programme for the rest of the year is shaping up nicely, with visits to the East Lancs Railway, Nene Valley Railway and the Swanage Railway already in the diary, plus of course a wide variety of main line excursions.

We therefore, as a body, appear to be in good shape. A although one swallow does not a summer make, and we remain heavily focused on swelling the coffers, I think for the first time in a long time I am feeling reasonably chilled and relaxed! My sincere thanks go, as ever, to our wonderful staff and volunteers, and of course to you, our magnificent and generous supporters. **TCC**

TORNADO TOUR DIARY 2026

Our diary for 2026 is firming up with the first half of the year now well committed.

There are a limited number of tickets remaining on the 28th March tour to Carlisle with Vintage Trains. This promises to be an interesting day out and will see the first use of the Vintage Trains water carrier with *Tornado*. We have several further tours in development with Vintage Trains and will be making announcements very soon with options heading north from Birmingham to visit Yorkshire and east to Lincolnshire in the pipeline. Sadly, a planned tour via the Cumbrian Coast this year is not possible due to a major problem with one of the tunnels on the route. Hopefully, we can return to this beautiful coastal route in 2027.

In this 150th anniversary year of the Settle and Carlisle Railway we are also close to announcing dates for travel with *Tornado* on this most famous of railways. Whilst we await the exact dates for testing, *Tornado* will return to the Cambrian Railways this year for more ETCS testing. We currently expect this to be in June but will provide an update nearer the time. We also had several preserved line visits in the diary, in April we visit the East Lancashire Railway from the 10th to the 19th. This is an extended visit which will include a gala weekend, passenger services, and limited driver experience opportunities. *Tornado* will also visit the Great Central Railway (Nottingham) in May for just over two weeks. The locomotive will operate trains on the 16th and 17th May and appears alongside *Flying Scotsman*.

Tornado will be visiting the North Yorkshire Moors Railway from 27th July to 9th August where she will be operating a programme of special services. Further details of this and other events to be announced in the coming weeks. **TCC**

A FAMILY AFFAIR by Teresa 'TC' Peppercorn

Wednesday 10th December 2025 saw *Tornado* leave Dorridge at 7:25hrs with 'The White Rose' Christmas special. An exciting trip for anyone fortunate to be aboard but especially for me as this locomotive was designed by my great uncle.

I always knew I had steam in my heritage. I remember my brother Duncan getting a Blue Peter badge for writing in to the show about his family history with the A1 class locomotive. My dad, John Simon Greaves Peppercorn, used to take us to railway museums as children and I once gifted him a footplate experience at Quainton for his birthday. We all watched and supported the development of the new *Tornado* and Dad got his footplate visit in 2011. In 2018 Dad gave me and my husband James a trip with *Tornado* which was sadly cancelled due to a fault on the train. It was rescheduled but unfortunately Dad died in 2019 before we could make the trip. In any case, that was also cancelled and then *Tornado* was off the rails due to Covid 19. My mum died at the start of 2020 and once the world started to emerge from lockdown, *Tornado* felt a bit less of a priority.

Whilst sorting through my late parents' effects, I discovered the extensive *Tornado* archive that Dad had compiled, including magazines, photos, videos and letters from the A1 Trust. There was a photo from 1931, taken on my dad's first birthday showing 'Uncle Arthur' in a family gathering with my Grannie and Grandfather, John William Peppercorn, Arthur's younger brother.

So, when I learned in 2025 that *Tornado* was departing from Dorridge on a date I was off work, I booked immediately. I emailed the A1 Trust and told the whole tale from above and Jorge very kindly



All photos by Teresa 'TC' Peppercorn

John Peppercorn on Tornado June 2011.



TC on Tornado's footplate.



John Peppercorn aged one year old with 'Uncle Arthur' far right of the photograph. June 20th 1931.



TC and James with Tornado and 'The Christmas White Rose' at York.

agreed to let me hop up on the footplate when we arrived in York. As it turned out there was another person on board whose late husband had been a Peppercorn but we couldn't quite work out which branch of the family we had reconnected.

Just seeing *Tornado* and hearing that powerful chug gave me goosebumps and left me with the biggest grin on my face. I felt like I was connecting with my Dad and the great-uncle I had never known in person yet knew so much about. The journey in the comfy Pullman car was wonderful as we watched the sun rise through the shreds of steam billowing from the locomotive ahead of us. I opened the window just a crack so I could smell the smoke and hear the locomotive's heartbeat that kept us racing North. All the carriages bore the festive branding of the Polar Express but I secretly pretended it was actually the Peppercorn Express and that it had been laid on just for me!

When we arrived in York I climbed up to the footplate, astonished by the heat and complexity of all the dials and handles in front of me. I loved the smell

and the grime and if I am ever given the opportunity to sound the whistle, I shall seize it with both hands! When I cautiously climbed down again, I couldn't help sharing proudly with several complete strangers on the platform that I had a familial connection with the locomotive's designer. It's not the first time a rail enthusiast has heard my surname and their eyes have lit up. It was the first time that I truly understood that passion though.

After a lovely festive few hours in York and a visit to see the A.H. Peppercorn plate at the Railway Museum, we were back in our Pullman as *Tornado* hauled us back South in the darkness. Even though we had a few delays on the journey and were running quite late, I refused to detrain and catch a regular service simply so we didn't miss our connection home from Dorridge. When we arrived after 11:00hrs, knowing we wouldn't be back home before 01:00hrs, we still stayed to watch *Tornado*, her fire glowing red on the faces of those on the footplate, as she finally pulled the empty carriages back to Tyseley for a well-earned rest.



Farewell at Dorridge. No. 60163 leaves the station with the empty stock for Tyseley.

It was a magical day and one that made me very proud to bear the surname Peppercorn. Thanks go to everyone from the A1 Trust and the Vintage Trains crew who helped to make the whole experience so memorable. **tcc**

TERRY GREAVES, A TRIBUTE by Charles Tremeer

It was with sadness that the Trust recently heard that Terry had died, two days before his 85th birthday. Living in Shildon, he had been actively volunteering with the Trust since we arrived in Darlington in 1996 to set up our first Locomotive Works and was involved in the considerable amount of work, including the lowering of the floor by a metre, required to make the old carriage works fit for purpose. The following year, Gordon Best set up the office and Terry began assisting him, especially by keeping on top of the increasing amount of filing that progress with building the locomotive was generating.

Terry also got involved with the engineering side of things, a highlight being his involvement with the first steaming of *Tornado's* boiler. To quote the article in *TCC 10*, describing the night of the 10/11th January 2008, "A good rake was put through the fire and it was pulled back under the door to let everything cool overnight with Terry Greaves on watch". This was a major milestone in the Trust's history and he was an active participant.

Whilst he remained resolutely disengaged from the electronic world – he surprised us a year or two ago by acquiring a smart phone, while making it clear that he would only be using it to make phone calls and take photographs – he had access to some sort of bat signal, as whenever something interesting happened at DLW he would be there. This happened most recently when the P2's boiler arrived, and there he was, quietly standing to one side observing everything that was going on. His last appearance at the Works was at the first of our new open weekends in early January, when he was on good form.

His lasting memorial will be his association with Gordon and their work on the Trust's administration. Gordon and Terry, or G & T for short, were a fixture at DLW for more than 25 years

and to lose both of them in less than 12 months is a significant blow. Also, Terry's passing may break the last link with the team that physically prepared our new Works 30 years ago. He will be missed by all who knew him. **tcc**



Terry Greaves.

TORNADO ON TOUR *by Jorge Gorman*

Picking up where we left off in TCC 76, *Tornado*, now stabled 'at home' in Darlington Locomotive Works, spent November static awaiting our next turn of duty. With two mainline passenger trains remaining in our calendar, our team of volunteers and engineering staff spent their time ensuring the locomotive was to be presented in the excellent condition that our supporters have (rightfully!) come to expect. Due to Traincrew availability, we were unable to operate double-headed with No. 5043 *Earl of Mount Edgcombe* as intended on 3rd December, despite both our support crew and the locomotive being fully prepared for service. Whilst disappointing, we then ensured our focus was on our next passenger working, on 10th December.



Geoff Griffiths

Tornado and her support coach run through Doncaster on the way to Tyesley.



On Sunday 7th December, our team of volunteers carried out preparations whilst our duty engineer made the essential inspections as part of the fitness to run process. Once satisfied that *Tornado* was fit for service, our team had a short period of relaxation before departing Darlington Locomotive Works on Monday 8th December, heading for Tyesley Locomotive works, Birmingham. This movement, along with the subsequent associated movements, was operated by our partner, Vintage Trains.

Left: *Tornado* is readied at Tyesley.



At dawn on 10th December, No. 60163 prepares to take the stock forward.



Under a crystal-clear sky, *Tornado* heads towards York with 'The Christmas White Rose'.

Alon Weaver

TORNADO ON TOUR



Geoff Griffiths



Alan Weaver

On the 17th December, *Tornado* passes Beighton, heading 'home' to her new, permanent base in Darlington.



Declan Hargreaves

A nicely panned shot of the light engine passing Askham Bar, returning to the North East.

'The Christmas White Rose' is seen at Swinton.



Geoff Griffiths



Alan Weaver

Far left: Double yellows! *Tornado* takes the middle road through Doncaster on the return run.

Left: Running nearly an hour late, the train heads back through Conisborough.

With little time to rest upon arrival, a full day of preparations followed on Tuesday 9th December. A further fitness to run exam was then undertaken, before our departure on 10th December to York. We enjoyed some spirited running through miles of beautifully lit rural areas in the winter's sun. With watering undertaken in a loop near Humberstone Road, Leicester, on both our outward and return journeys, we encountered a damaged hydrant on our return leg, which resulted in a delay. Despite best efforts by all those involved to minimise the late running, we became further delayed due to regulation for other services that were running 'on time', arriving back at Dorridge just under 60 minutes late. Despite the delay, we heard from many passengers, first hand on arrival at Dorridge, that they had a wonderful experience onboard.

To ensure *Tornado* returned back home to Darlington Locomotive works before Christmas, a suitable movement was arranged for Wednesday 17th December from Tyseley Locomotive work. Speaking on behalf of our support crew, it's been wonderful to meet so many of our supporters during a very successful 2025 operating season, and we all very much look forward to seeing you all during 2026, with our first passenger operation on Saturday 28th March, from Birmingham New Street to Carlisle. [TCC](#)

AI PROFILE – No. 60148 ABOYEUR by Phil Champion

Works No. 2067 was Darlington's 19th AI. It was first recorded in Darlington Works yard on 14th May 1949 carrying boiler No. 3957. The finish was the Darlington AI standard with smooth cabsides and tender due to the use of countersunk rivets. Livery was the early BR scheme of LNER apple green with black and white lining and 'BRITISH RAILWAYS' painted in white on the tender. No. 60148 was one of four to be completed that month along with No. 60149 from Darlington and Nos. 60127/28 from Doncaster. With 31 AIs already having been completed they were about two-thirds of the way through the build of the class. On 25th May No. 60148 entered service from Grantham shed (GRA), one of four first AIs allocated there. With three spells at Grantham out of nine allocations, No. 60148 was to be the most re-allocated AI. The first run noted was the 14:05hrs Darlington to Leeds train on 4th June.



Aboyeur on 'The Northumbrian' at Grantham in May 1953.

After a spell in Darlington Works between 9th and 22nd June for non-classified repairs, No. 60148 was soon travelling around the main line and into west Yorkshire. The day it was released from repairs it was seen later in Newcastle. On 25th June it arrived at King's Cross at 18:30hrs with a train from Newcastle. Three days later it arrived in the capital on a train from Leeds. On 1st August No. 60148 was back on Tyneside being seen at Heaton Junction while on the 6th it was heading that way when it passed Northallerton with a 14 coach King's Cross-Newcastle train. On the 31st it was back at King's Cross shed at 15:00hrs. An alternative route through County Durham was worked on 4th October when No. 60148 restarted its Liverpool-Newcastle train of LMR stock from the Stockton stop at 14:51hrs. Most sightings into the next year were between

Newcastle and the capital.

Transfer to King's Cross shed (34A) came on 4th June 1950, being one of a quartet based there then, still working trains between the capital and Tyneside. A shorter run was the 10:40hrs King's Cross-Peterborough on 2nd July. After a heavy intermediate repair at Doncaster, it was one of four to be repainted into BR blue in January 1951, 33 having already appeared in this livery. While in the works it had been named *Aboyeur*, being one of 13 AIs named after racehorses. *Aboyeur*, despite being an outsider, had won the 1913 Derby which was infamous for suffragette action though not involving that horse which went on to have a very interesting life; sold to stud in Russia and ridden to the Crimea to escape the revolution to be evacuated on a British warship, the horse was last

heard of standing at stud in Serbia. The first record of No. 60148 on a named train was the up 'Tees-Tyne Pullman' of 8th February 1951. The first sighting on a goods train was with a No. 1 goods in London on 20th August. 9th September 1951 marked the start of its second spell at Grantham shed (now 35B) as one of eight there. Its duties continued between Newcastle and King's Cross with trains via Stockton too. Slightly different was the 13 coach Sunderland to King's Cross leaving Stockton at 08:47hrs on 31st May 1952. That July *Aboyeur* was one of a pair repainted into BR green with the early emblem following its first general overhaul and boiler change (boiler No. 29826 being fitted). With 32 having already been repainted, No. 60148 was again about two-thirds of the way through the class to be treated. More named trains were



No. 60148 is seen at Sandy in 1962.

hailed by No. 60148 including the down 'Flying Scotsman' on 3rd and 27th March 1953 from King's Cross plus the down 'Aberdonian' from the capital on 8th July before returning to Doncaster for another 'General' in September during which it acquired boiler No. 29874.

Transfer to Copley Hill shed (37B) came on 18th October to join ten other AIs. This again led to appearances between west Yorkshire and London. The up 'Yorkshire Pullman' was hauled on 1st January 1954. Next day No. 60148 was on the 18:18hrs King's Cross-Leeds but failed with a burst train heat pipe. On 11th April it was on Bradford shed. *Aboyeur's* third spell shedded at Grantham started on 2nd May 1954. It pulled the down 'Flying Scotsman' into Newcastle nine times over the next year. Other trains both ways between Newcastle and King's Cross were worked such as the 15:00hrs King's Cross-Newcastle on 10th July and the 22:35hrs up 'Tynesider' from Newcastle on 8th August. Trains between Leeds and King's Cross were worked too like the 12:35hrs from Leeds on 18th January 1955. The locomotive returned to Doncaster for another general overhaul during April, leaving the works with boiler No. 29879. Following its return to traffic, an example of its diagramming was when *Aboyeur* pulled the 07:20hrs Bradford-King's Cross on 30th July then worked back with the 14:10hrs King's Cross-Leeds. 12th August found No. 60148 leaving the capital at 19:00hrs with the down 'Aberdonian'.

A return to Copley Hill's roster came

on 28th August 1955 where it stayed for nine years, its longest allocation. The focus was more on Yorkshire workings with trains to/from Bradford and Leeds and London. The down 'Queen of Scots' was worked many times over the next few years. On 27th January 1956 it was recorded on the balancing return working which was the up 'Bradford Flyer' but on 8th February, however, No. 60148 failed at Grantham with the down 'Queen of Scots'. A goods working was the Ardsley East Goods-King's Cross Goods on 26th January. On 21st May it worked a Leeds-King's Cross special. Named trains in *Aboyeur's* charge included the up



Aboyeur is seen at King's Cross in this undated view.

'Harrogate Sunday Pullman' on 27th May, the down 'Aberdonian' on 10th November and the 23:45hrs down 'Tynesider' a fortnight later although the locomotive had spent September at 'The Plant' undergoing a 'General' and receiving boiler No. 29872. The up 'Yorkshire Pullman' was a regular turn and No. 60148 arrived at the 'Cross each day from 19th – 23rd February 1957 at 14:24hrs then returned on the 18:15hrs down departure. Other regular departures to Leeds were the 11:33hrs and 13:18hrs trains. 14th September was notable for No. 60148 on the down 'West Riding'. On Saturday 10th May 1958 it arrived at King's Cross at 11:02hrs with a 12 coach Rugby Cup Final special from Leeds, returning next morning at 00:45hrs to Leeds. During a general overhaul in September 1958 the locomotive was fitted with boiler No. 29810 and the later BR crest was applied to the tender. Regular workings continued into 1958 and 1959 of 'The Queen of Scots', 'Yorkshire Pullman', 'Harrogate Sunday Pullman', 'The West Riding' and also the up 'White Rose' on 8th July 1958 – appropriate trains to be hauled by a 'racehorse'. A shorter run was the 14:05hrs five coach Leeds to Doncaster train on 18th October. The down 'Flying Scotsman' was worked again on 11th December 1958. 9th January 1959 saw No. 60148 on the up morning 'Talisman'. A different diagram was working the up 'Northumbrian' into King's Cross on 29th October. On 11th November *Aboyeur* hauled the 'West Riding' both ways, first with the up train, returning with the down run.

The same type of workings continued into the 1960s with extra ones of note



Tornado thunders through Doncaster with 'The White Rose', returning from York.

like the down 'Tees-Tyne Pullman' of 18th February 1960 and a shorter working in the 16:19hrs King's Cross-Peterborough on the 26th. On 3rd March its down train from the capital passed Lincoln on a Sunday diversion. Sundays 1st and 8th May (up) and 22nd (down) had No. 60148's down trains rerouted via Cambridge, with the last one being the 'Harrogate Sunday Pullman'. A few trips were made back to the North East. On 23rd July it hauled the 10:56hrs Ripon-King's Cross into Grantham then left northwards with the 14:45hrs King's Cross-Newcastle, being serviced afterwards on Gateshead shed. Next day it returned south with a 12 coach train for King's Cross. On 9th September it was noted on a day trip from Newcastle to London but it returned to Doncaster for its last overhaul in November, being equipped with its last boiler, No. 29800. During 1961 and 1962 a common working was the 1N25 18:12hrs King's Cross-Leeds with 11, 12 or 13 coaches. Into 1963 while still regularly hauling the 07:45hrs or 09:42hrs from Leeds to King's Cross *Aboyeur* started to appear on parcels trains as a return working. The 18:32hrs King's Cross to York parcels was hauled several times in the early part of the year with 19 vehicles on 15th February and 11 on 29th March. On

6th February however the return working was the 23:50hrs sleeper from King's Cross. Named trains hauled during 1963 included the down 'Tees-Tyne Pullman' on 25th January, the up 'Harrogate Sunday Pullman' on 16th April and the down 'Queen of Scots' from Leeds to Newcastle on 22nd May, which was its last recorded 'namer'. A couple of goods turns appeared, an up goods at York on 23rd March and an up fitted goods at Wakefield at 21:25hrs on 3rd May. The last passenger train was a 04:10hrs up into King's Cross on 29th May. Early June saw No. 60148 noted four times on the 3N10 18:32hrs King's Cross to York parcels, the final working of *Aboyeur* being that for 11th June. It did work up to Tyneside at least twice as it was serviced on Gateshead shed on 9th August 1963 and 3rd April 1964.

From 23rd August 1963 it was observed on Ardsley shed (56B) a number of times, being transferred there on 6th September. After being stored there from 25th October No. 60148 was transferred to Gateshead shed joining seven others on 6th December. Ten days later it was on an up passenger train which arrived in Newcastle at 10:26hrs then at 10:45hrs worked an up ECS past Tyne Yard; a number of times later that month it was seen on Gateshead shed (52A).

The final reallocation came on 3rd January 1965 when it went back to Ardsley (56B) to join No. 60117. Half a dozen times over the next five months it was seen on shed but on 16th March it brought the 09:00hrs ex-Liverpool into Newcastle then took the 15:16hrs train back. On 21st June *Aboyeur* was withdrawn. It was noted lying withdrawn at Ardsley until 21st August. It was seen at Darlington with the same status the next day, its last sighting. No. 60148 was one of eight withdrawn that month, with 27 having gone earlier so its withdrawal was about two-thirds of the way through the class. It was moved to Arnott Young at Dinsdale to become the only A1 they scrapped.

Like most of the class No. 60148 had seven boilers in its lifetime, all of them to diagram 118. With a service life of 16 years and one month it lasted nearly a year longer than the average for the class. Though the Peppercorn A1s could have lasted longer had it not been for mass dieselisation, they certainly worked hard, as No. 60148's history shows.

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. Revised and updated by Graham Langer, July 2020. TCC

John Carter



No. 60148 at Haringay with the 18:05hrs to Leeds.

OFFICE GOSSIP by Jess Lamb

In the New Year we switched from two open days a month to one (the first) weekend. We are pleased to announce that the new open days at DLW are going swimmingly. The first weekend was boiler focused and this upcoming open weekend (at the time of writing) is focused on 'home grown heritage' telling the story of the Trust from the price of pint to where are now, with a live track and in the middle of P2's build. The office and workshop have been working closely together with huge amounts of help from our long-standing volunteer Charles Tremeer to make these as interesting and immersive for our visitors as possible, and we encourage you to come and visit when you can on the first full weekend of every month.

The office staff is sadly a little bit smaller at the moment with the departure of Poppy Warwick who left at the end of December on completion of her apprenticeship, she has decided to move onto a HR based role. We are left with myself, Alysha Wilkes, our bookkeeper who has just passed her Level 3 apprenticeship (she now has her AAT certification which is a globally recognised qualification by the Association of Accounting Technicians) and the wonderful Liz Slade who is our customer supporter administrator (albeit only in Thursdays and Fridays) whose vibrant energy always makes its mark as we get constant feedback from those of you who contact the office about her cheery customer service skills. TCC



Plenty going on to focus minds at one of our recent open days.



Liaising with Workshop and Infrastructure manager, Richard Snowdon.



The office team - Jess Lamb, Liz Slade, and Alysha Wilkes (in cab).

P2 DEDICATED DONATIONS UPDATE by Liz Gibson



Hopefully you will all have been delighted with the recent news of the preparatory works for the fitting of the Monobloc, and as we are inching ever closer to seeing cylinders and frames come together, I've chosen this part of the locomotive as the focus for this edition's Dedicated Donations.

Starting with a relatively tiny piece, an inlet valve tappet is £150, a piston crosshead cotter can be sponsored for £300, if you like things with mildly earthy names, the cam box worm gear and pinion could be provided for £1,600 and forging or machining of one of the combined piston and rods can be covered for £5000!

Of course, there are myriad other mechanical parts which are needed to complete this Monobloc marvel, so if there is something not mentioned that appeals to you, please get in touch – the list is long and if it hasn't already been sponsored, everything is available.

As always, every part sponsored, no matter what the cost, makes a wonderful and generous gift both for yourself or a loved one, and helps us edge ever further towards completion. We are post-Christmas and coffers are often feeling a bit squeezed at this time of year, so it is worth reminding you, our dear supporters,

that it is entirely possible to sponsor one of the more costly parts by paying in instalments – if this would be of interest and may make the impossible possible, please do get in touch.

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

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

...and all then expertly fitted together at the Works in Darlington. Our 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

P2 ENGINEERING UPDATE *by Terry Graham*

We've had to replace the 1" Philidas nuts on the locomotive frames as the ones originally fitted were from a defective batch. This task is now complete, in total 617 nuts have been methodically removed, replaced, re-torqued and identified to ensure no nuts were missed. This has been quite a task, especially due to the difficult to reach nuts. In addition, 3/4" Philidas nuts need replacing but this will be carried out when the locomotive is next jacked up to allow access.

The boiler was delivered to DLW on 9th December. The boiler was loaded onto a flat-bed railway well wagon kindly loaned to the Trust by Andrew Goodman. This allows the boiler to be easily moved anywhere on the tracks. The volunteers wire brushed the wagon frames and repainted them and also boarded out the area under the boiler which is a very useful storage area for P2 components. The P2 now covers the full length of Road No. 1 in the shed (55m), but will get significantly shorter when we assemble it all!

We are now working towards fitting the six-ton cylinder block. To create access to the frames where the cylinder block is fitted the smokebox was removed and is stored on the flatbed wagon, then the running boards in this area were also removed. This allowed the frames to be measured and compared with measurements of the cylinder block which didn't show any areas of concern. Templates were made of the frames and offered up to the cylinder block to check the interface areas and mounting holes, this process is still ongoing. We want to carry out as many checks as we can on the interface areas. The design of lubrication ports is ongoing, these need to be made and fitted to the cylinder block before installation.

We are investigating lifting options for the cylinder block as it is unlikely to be straight forward. It will not be the case of lowering the cylinder block into position as it needs to be a very tight fit and accurately located. We don't want to spend significant amounts of money on days of crane hire so are investigating crane purchase options. Having a crane of 10-ton capacity would be very useful for many jobs on both P2 and also A1 which would generate a saving in the long term.

We need to fit the draw hook assembly. A temporary hook is currently in place, so will purchase the components to fit the draw hook to the front of the P2. We already have the draw hook and nut but not the rubber and steel discs.

All the while, work has continued to proceed on the valve gear. A design FMEA (Failure Modes Effects Analysis) document has been produced for the cambox and reviewed. This document highlights potential failure modes and scores them according to the severity chance of occurrence and detection. High scores require actions such as to carry out durability testing on a test rig. The cambox component drawings are currently being reviewed, checked and modified if required before being signed off. Then we will get quotes for castings and machining from potential suppliers.



Above: Some of Peter Scott's work, fabricating fittings for the new boiler.



The Matterson jacks that have done sterling work for the Trust but are not capable of all lifts.

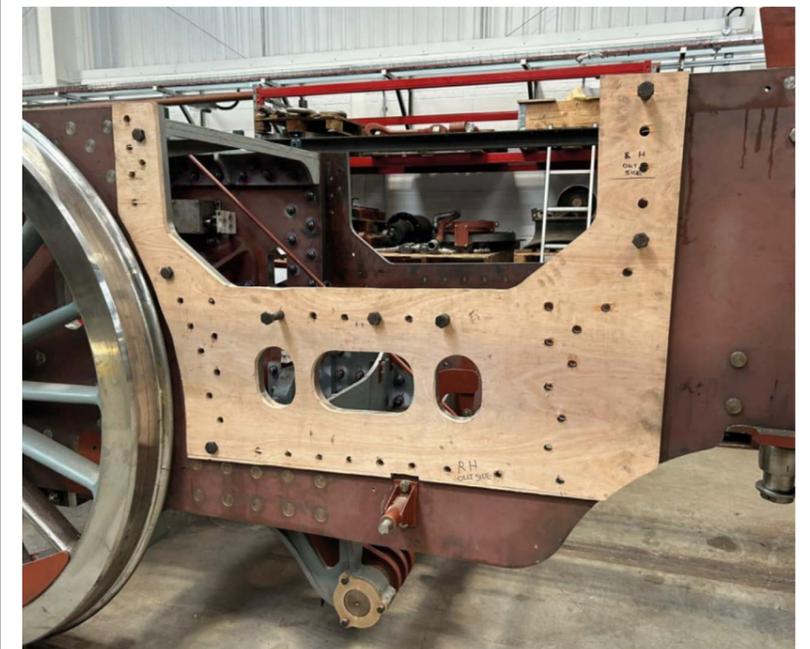
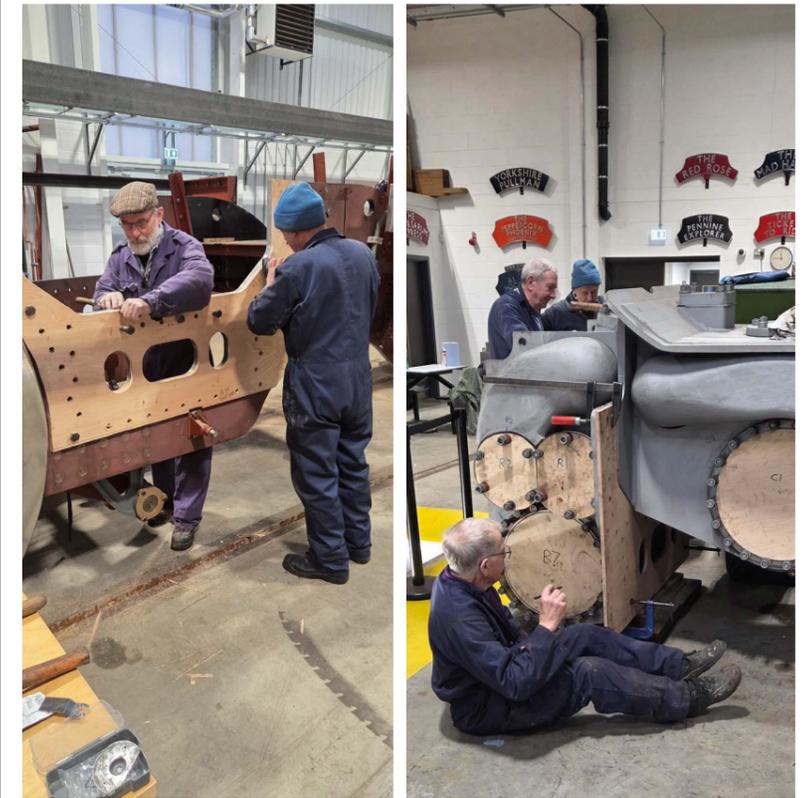


Above left and top: Torquing up the Philidas nuts.

Bottom right and centre: Offering up the templates for the cylinder block to the frames.

Centre right: Bolt templates for the cylinder end covers being checked.

We are also looking to get a full-size 3D printed cam box casting made locally and potentially get internal components 3D printed which will help explain the workings of the valve gear. **TCC**



P2 BOILER DELIVERY



A photographic record of the boiler's journey from Meiningen to Darlington Locomotive Works.

Having held out for the chance of having it delivered by rail, we had to settle for road delivery by Andrew Goodman. After unloading at DLW it was transferred to a well wagon and propelled into the Works by the DRPS diesel shunter. **TCC**



P2 FUNDRAISING by Sophie Bunker-James

The Raising Steam Club - Let's raise the funds needed to see the P2 boiler in steam!

As 2025 drew to a close, the P2 project reached a major and highly significant milestone with the successful delivery of No. 2007 *Prince of Wales*' boiler from DB Dampfkloswerk Meiningen. Before leaving Germany, the boiler passed its hydraulic test and was awarded its CE mark — a crucial step forward in the journey towards steam.

However, before the boiler can be steam tested and formally certified, a number of essential components must be fitted. These include the fire grate, safety valves, backhead cocks and gauges, together with the funding required to carry out the steam test and certification itself.

To accelerate this next vital phase, we are launching 'The Raising Steam Club'.

Over the next 12 months, our aim is to raise £50,000 by inviting 100 supporters to contribute £500 each. Combined with Covenantor income and dedicated donations, this focused appeal will allow the boiler to be fully completed and brings the P2 one decisive step closer to service.

While this fundraising takes place, work at Darlington Locomotive Works continues at pace. The final works on the frames are progressing well, and preparations are under way to fit the unique three-cylinder monobloc. This means that when the boiler successfully steams and the clock starts after certification, No. 2007 will be ready to receive it without delay.

Progress is also being made on the valve gear, and the boiler cladding already stands ready. Once this imposing component of the locomotive is in position, *Prince of Wales* will truly begin to look complete.

By joining 'The Raising Steam Club', you can play a direct and tangible role in bringing this extraordinary locomotive to life. Your support today helps ensure that the next chapter in the P2 story is written in short order.

Be part of it. Help us raise steam - and make history- once again!

Visit:
www.a1steam.com/raisingsteam
 or scan QR code
 for more information
 and to support
 this project.



Above images: The 'CE' plates fitted to the boiler backhead.



Following its most recent overhaul, *Tornado*'s pressure gauge registers 200psi, with your help No. 2007's boiler will soon follow suit!



Tornado's boiler was tested outside the old works when it was first delivered.

The ADA Clutch Trial and Design Project - The Trust is seeking £25,000 to modify and prove new Axle Driven Alternators for its locomotives.

Background

Although the P2 is based on a 1930s design, it will incorporate around six miles of modern electronic cabling and equipment. Electrical power for these systems is, in part, generated by an Axle Driven Alternator (ADA) when the locomotive is in motion.

Developing a new alternator offers major advantages over older 1960s-era equipment, which is bulky, difficult to maintain and costly to refurbish and so the P2 will require a new ADA design. This work is being refined and proven using *Tornado* as a test platform. Two designs have already been trialed, with a final revision required before full testing and formal approval by our independent certification body, Ricardo.

Progress to Date

The Trust's engineering team developed a new alternator specifically for the P2, with initial concept work by David Elliott. A first prototype was fitted to the A1 Support Coach for proving trials, followed by a Mk 2 version incorporating larger drive belts and minor refinements. This second unit is now fitted to the locomotive (funded by the ETCS project).

For the past year, both alternators have been running as part of an In-Service Experience Trial with Ricardo. As expected, this has provided valuable learning. The trial concludes on 31st December 2026, setting a clear deadline for final refinement and approval.

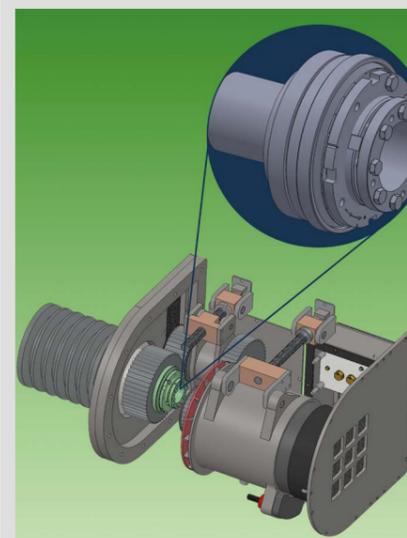
The key issue identified relates to shock loads if the tender wheel set driving the ADA momentarily locks. Because the alternator must run at a much higher speed than the axle, a step-up drive using toothed belts and pulleys is required. If the axle stops suddenly, the stored energy in the fast-spinning alternator can cause belt failure. With three belts already replaced, a design change is essential.

Next Steps

The solution is to incorporate a clutch into the alternator drive to absorb shock loads. Space already exists within the design, and suitable off-the-shelf industrial clutches have been identified. The clutch will slip at a torque above normal operating requirements but well below the belt breaking strain. The modified system must complete 1,000–2,000 miles of running before the end of 2026 to allow Ricardo to approve the design.



The Trust's unique, bespoke Axle Driven Alternator (ADA), ready for fitting.



A CAD of the revised ADA design with the clutch in place and expanded image of clutch.



The ADA in place under the tender with the six, separate belts in place.

Visit:
a1steam.co.uk/p2ada
 or scan QR code
 for more information
 and to support
 this project.



Show Your Support

We are launching a dedicated Club to fund this vital work. £15,000 is required to complete the design, purchase and fit the clutch to the P2 ADA, enabling the trial to continue on schedule. This equates to 15 supporters each donating £1,000. Our Electrical Engineering Director will provide regular updates throughout the project.

DLW Open Days - Open Days at Darlington Locomotive Works will, be held on the first full weekend of the 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.

TCC

DARLINGTON LOCOMOTIVE WORKS UPDATE *by Terry Graham*



On 31st January we received our first in-bound charter train, an HST.

Although the key components of the track layout are in place, we still have a variety of tasks to complete. We have stripped the buffer stop that will go on the end of the turntable track. It has been repainted but needs new gusset plates making before refitting. In November we collected 100 redundant second-hand level crossing pads from Network Rail. These are required to create a crossing just north of the A1 shed as the current path to the 1861 shed runs across the proposed turntable site. We plan to build a permanent fence between the path and the track linking DLW to the 1861 shed.

In January we collected two sets of BV switches and baseplates that came from the Transpennine Route upgrade Huddersfield Blockade. Although the Network Rail connection is in place the trackwork is not complete so we still need to raise more funds. We need the crossings to go with the BV switches and another turnout as well as all the baseplates, bearers and components to go with them. Also, more ballast is needed to finish the top stone on some areas of the existing track and for new track as well as more concrete sleepers.

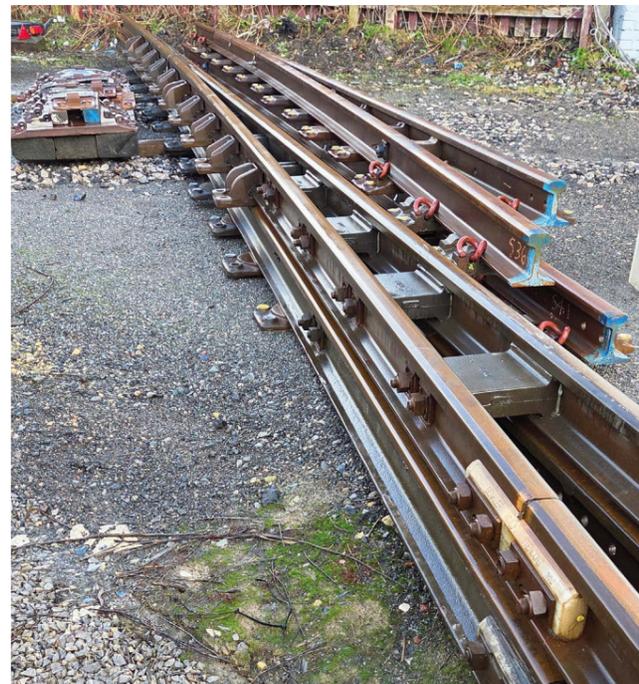
TCC



The level crossing pads in place.



The buffer stop being refurbished.



Components for the BV switches.

FROM THE ARCHIVES *by Graham Langer*



David Chandler

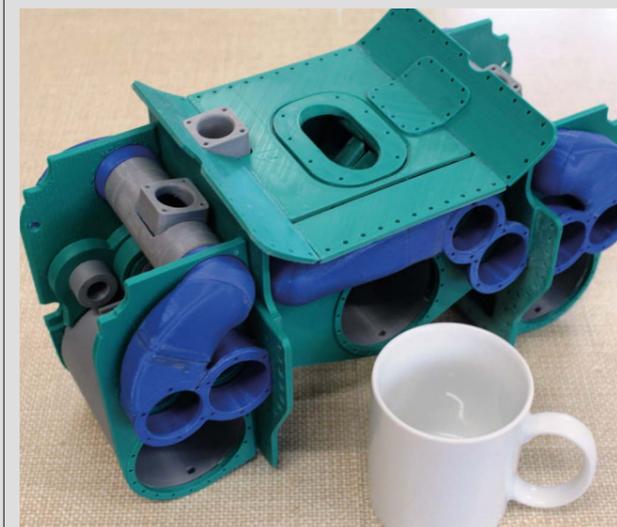
Bathed in evening sunshine, *Tornado* is seen at Ashchurch with the returning 'Red Rose' in 2016.

Winter 2006 - North View Engineering made progress on the valve heads and spindles and machining the valve spindle crosshead guides was completed in February at DLW. During the autumn the Trust was making great progress with the valve gear and motion components. The valve heads and spindles were now completed and in the works in Darlington. A pallet of components including front boiler support, regulator castings, regulator stuffing box, water gauge assemblies, fusible and washout plugs, and one blow down valve was despatched to Meiningen. The rocking grate mechanism was ordered from North View Engineering.

Winter 2011 - *Tornado's* imminent change to BR Green livery meant we couldn't resist a brief flight of fantasy with our locomotive as her designers intended. Andrew Hancock of Simply Stripes Signmakers of Spennymoor supplied and fitted the vinyls to give No. 60163, sorry, No. 163, a brief spell in LNER livery! Following this the locomotive was taken into the engineering bay at the National Railway Museum to be stripped for her winter overhaul and to allow the boiler to be removed for its return to Meiningen for rectification work. Work commenced on rubbing the rest of the engine and tender down for a new coat of paint.

Winter 2016 - After an outstanding season during 2015, *Tornado* made an early start in 2016, hauling 'The Belmont British Pullman' on 6th February and 'The Red Rose' on the 14th of the same month. Meanwhile at DLW and other locations, significant progress continued to be made with the construction of No. 2007, stays began to appear between the frame plates, a pattern for the chimney had been made by South Lincs Patterns, the cab had been bolt-assembled and lifted onto the footplate and Boro' Foundry had completed machining and drilling the tender frame plates. In other news David Champion was appointed Trust President and in TCC No. 41 he paid fulsome tribute to Dorothy Mather.

Winter 2021 - The global pandemic was still having a significant effect on Trust operations, following annual maintenance, *Tornado* was winterised and side-lined at the NRM with no prospect of railtours recommencing with a consequent impact on the Trust's income and ability to raise funds. Despite the requirement for social distancing, work on the P2 continued steadily, focussed on the pony truck, motion and brake gear with David Elliott working up the design of the monobloc to the stage of being able to print a 1:8 scale model of it for reference. Frewer Engineering had undertaken a review of the cylinder design and applied Computational Fluid Dynamics analysis to the inlet and exhaust steam passages allowing further enhancements to be made to the efficiency of the monobloc. TCC



The printed 1/8th scale model of the cylinder block with a mug for reference to its size.

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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The Gresley Society Trust



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* All information correct at the time of going to press late February 2026. For up-to-date information and dates please check the website www.a1steam.com.

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Darlington Locomotive Works is normally open to the public on the first full weekend of each month (10:00hrs to 15:00hrs).

Access to the works is in association with Head of Steam: Darlington Railway Museum where Covenants 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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