

THE COMMUNICATION CORD



60163 TORNADO
New Steam for the Main Line



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

No. 45 Winter 2017



Moody and magnificent! *Tornado* approaches Dent station on the Settle & Carlisle Railway with a Northern Rail scheduled service.

Jon Hardman

PLANDAMPF!

by Mark Allatt

Tornado hauled scheduled Northern Rail trains over the S&C between Skipton and Appleby on three consecutive days. These were the first timetabled ordinary main line passenger steam hauled trains to run in England for almost 50 years and were the result of a pioneering modern and heritage railway industry alliance, formed to help revive the economic fortunes of the line as well as the towns and villages that it serves. This collaborative alliance comprised Northern, Network Rail,

DB Cargo, The A1 Steam Locomotive Trust and Friends of the S&C, together with RAIL and Steam Railway from the Bauer Media magazine portfolio, who came up with the proposal two years ago.

From Tuesday 14th to Thursday 16th February, the usual Diesel Multiple Unit (DMU) trains were replaced by No. 60163 *Tornado* hauling British Railways Mk2 carriages on the 10:45hrs ex-Skipton and 15:07hrs ex-Appleby services, supplemented by morning and evening

extras, running in reverse order. This was the UK's first German-style 'Plandampf' operation where steam locomotives haul scheduled passenger trains and over 5,500 people experienced some of *Tornado's* magic over those three days – with countless thousands following her progress on the wall-to-wall TV coverage and in every national newspaper. Our thanks must go to everyone involved who made such a success of yet another first for *Tornado*.

TCC

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EDITORIAL by Graham Langer



Voluntary organisations will always suffer 'growing pains' and The AI Steam Locomotive Trust is not (and has not been) immune. It is very easy for a willing volunteer to become overloaded with work, a burden they often shoulder without complaint because of their dedication to and passion for the cause. The recent management changes at the Trust will, hopefully, redistribute some of this load and re-focus the talent which has brought the organisation so far already, allowing 'square pegs' to once again be properly located in

'square holes' and those volunteers to have time to actually enjoy what they do for the Trust.

Mark Allatt has always been a larger than life character and propelled the AISLT along at a furious pace. Personally I am grateful to him for twisting my arm and getting me more (and more!) involved in the day to day running of the Trust and I am sure I am not alone. However, there will always be the risk of burning out people as committed as Mark and 'taking a pull' at this stage will enable him to focus on the P2, a project he has always promoted and invested much emotional capital in. In the article below, David Champion pays a fulsome tribute to Mark and since he is much better qualified to do so I will leave it to him.

Elsewhere the 'furious pace' continues, *Tornado* has a very busy year ahead with enormous interest being shown in those tours originating in the Midlands, indeed 'The North Briton' has already sold out! Combined with the 'Belmond British Pullman' work, a few 'Torbays' and some heritage line visits there will hardly be a corner of Britain where No. 60163 won't be seen. Meanwhile in Darlington our mighty Mikado continues to increase in size and complexity, the P2 Roadshows yielding dividends of new covenantors and some significant donations - make sure you catch one in your area. **TCC**

THANKS MARK! by David Champion

As you may read on page 4, the ongoing and relentless development in the Trust's activities has led to an inevitable restructuring to ensure that the high calibre professional management (that has always been our hallmark) is able to handle the expanding tasks ahead of us. A consequence of this is that Mark Allatt is now free to concentrate on the massive task of raising funds to build our new P2 and, while relinquishing the chair of The AI Steam Locomotive Trust, he is keeping his hand in as a Trustee and will oversee marketing and public relations for Trust activities.

It is appropriate at this point to recognise Mark's 16 years as Chairman. For once in my life I feel uniquely qualified to comment on what it is to be a Chairman of the Trust. Of course there is lots of exciting work and achievements to celebrate, but behind the scenes the reality is that there is a mountain of sheer hard graft. Formulating and keeping on track a strategic plan using the best business principles, constantly trying to find a solution to the next problem ahead, balancing the very strong personalities in the Management team to help them achieve their goals, motivating the public and industry to support us... the list goes on and on... and it is with you every waking hour.

I have just finished re-reading Tom Rolt's biography 'Landscape with Machines' and I found a common thread that Mark will recognise too. Tom Rolt, preservation pioneer (who rescued the Talylyn Railway and originated steam preservation), was only able to run the railway for the first two years of its resurrection because he was self-employed. He remarks on the dire adverse effect on his earning capacity and life due to his time spent rescuing the railway. As self-employed I too was able to re-order my working life to give 10 years to the Trust in the nineties, as Mark has done since 2000 and we can both testify to the 'alteration' in earning capacity due to the demands of running the Trust!

Of course the Trust's activities have expanded so much since the completion of *Tornado*, with the operational/charter side of the Trust, the P2 build, the new Mk3 train and the new Darlington base. Mark lives and breathes the Trust, and it should be recognised what a massive load he has been bearing; it must be remembered, all this as a volunteer. So on behalf of us all, thanks Mark. I well recall you volunteering at the King's Cross Roadshow in 1991, arranging your own first successful event at Farnborough later that year, and since then your record of achievement is both long and formidable. **TCC**

From the chair by Mark Allatt

Well this year seems to have started with a bang for the Trust! No sooner had No. 2007 *Prince of Wales* made both ITV and BBC news across the UK than No. 60163 *Tornado* went global with the 'I ♥ S&C' Plandampf! (See front cover.)

As I write this column, No. 60163 *Tornado* has already completed her first 'Belmond British Pullman' of the year (Saturday 4th February), her first Trust promoted tour ('The Red Rose' on Saturday 11th February) and also starred in the return of steam to scheduled passenger services in England for the first time since 1968 with the 'I ♥ S&C' Plandampf. *Tornado* hauled a series of trains on the Settle & Carlisle Railway over three days between Tuesday 14th and Thursday 16th February 2017 to celebrate its re-opening after repairs following a huge landslip in February 2016 and, as you will undoubtedly have seen on TV and read in the newspapers, was the star of the show.

Not to be outdone, our project to build Gresley class P2 No. 2007 *Prince of Wales* continues to move forward. Recent weeks have seen substantial press coverage not only in the railway press but on both ITV and BBC news, the latter covering the return visit of our supporter, TV presenter and part-time fitter James May, to Darlington Locomotive Works (this time to manufacture the appropriately-named "slacking cock flange"). Elsewhere in *TCC* you can read about the substantial progress being made in both DLW and off-site which all means that we have now spent over £1m on construction, have raised around £1.25m and have received pledges of £2.25m – not bad when compared to other new build projects which were launched many years before our P2 project in Autumn 2013.

We continue to promote our P2 Project as widely as we can and have already held the first two of our P2 Roadshows in London and Peterborough. Both were very well attended and resulted in substantial donations and sign-ups on the day with more coming in over the following weeks. With the wheeling due to take place towards the end of spring 2017 we are confident that with your continued support we will have received pledges for 50% of the £5m needed to complete No. 2007 by the middle of the year – The Mikado Club just needs another 40 members to raise its £160,000 (£200,000 plus Gift Aid) target. Our £500,000 plan for the next 12 months includes: completion of wheelsets

and fitting to the frames; finish cab and smokebox; complete design, make and fit the outside motion brackets; finish re-design and fabricate the pony truck frame; make and fit spring hanger brackets and spring gear; make and fit brake linkage; boiler procurement; complete design for valve gear; and place the order for the cylinder block. As a further sign of this dramatic progress with our P2, in January of this year our monthly covenant income for No. 2007 passed that of No. 60163 for the first time.

Although we have nothing specific to announce in this edition of *TCC* on our state-of-the-art Mk3 based charter train, rest assured that work is going on in the background with current owners, funders and potential contractors. Similarly, Paul Bruce continues to drive forward our plans for a new site in the Darlington area with larger facilities for new steam locomotive construction, maintenance, operations and education. Discussions continue with Darlington Borough Council, Network Rail and the Heritage Lottery Fund with further announcements expected in due course. Finally, the Trust's plans for a Gresley class V4 2-6-2 to follow our P2 have taken a few steps forward with Tony Lord starting the process of identifying drawings at the National Railway Museum for scanning.

As always, our plan for the Trust's own trains is to promote the right train with the right starting point, route and destination, taken to the market sufficiently early in order to generate enough profit to keep *Tornado* operating on the main line on a day-to-day basis (excluding five yearly overhauls). Our 2017 programme started with the successful 'The Red Rose' from London Victoria to Cosford, Telford and Shrewsbury on Saturday 11th February and will be followed by 'The Saint David' from London Paddington to Cardiff on Wednesday 1st March. The rest of the spring 2017 programme can be seen on page 5 and destinations include Edinburgh, Darlington, Penzance and the Settle & Carlisle Railway.

With our plans for 90mph running (with the support of Network Rail) now well underway, we are now also able to release our summer 2017 programme, please check the diary for all these newly announced trains. *Tornado* is also hauling the 'Belmond British Pullman'. As supporters of the Trust you can receive a 10% saving on journeys for travel on the 'Belmond British Pullman' until 30th June

2017 – just quote code TO10 at time of booking.

Our locomotive will be visiting the Bodmin & Wenford Railway for the first time from Friday 1st June to Monday 4th June and returning to Barrow Hill Roundhouse on Saturday 23rd and Sunday 24th September; this time with No. 60103 *Flying Scotsman* for company.

As the majority of our main line trains will be promoted by the Trust, it is vital that we fill them and so I would ask that you look again at our 2017 programme to see which trains you are able to support and also encourage friends and family to experience some of *Tornado's* magic – bookings as usual through UK Railtours.

The continued high-profile success of No. 60163 *Tornado*, the rapid progress of our project to build No. 2007 *Prince of Wales*, as well as the Trust's exciting plans for its own state-of-the-art train, 90mph operation for *Tornado*, a new main line connected base in Darlington and further new build LNER steam locomotives all demonstrate that after over 25 years of innovation, The AI Steam Locomotive Trust remains at the forefront of the railway heritage movement.

As you can read elsewhere in *TCC*, in order to maintain this progress on all fronts I have decided that after 16 years as chairman I should focus my voluntary time on leading our project to build our new Gresley class P2. I will continue as a Trustee and also maintain my oversight of all of the Trust's marketing, PR and fundraising activities. As Trustees we have made a number of other management changes which you can also read about in more detail on page 4. However, I would like to say a special thank you to Gillian Lord who has stepped down as a Trustee and Merchandise Director for all of her hard work over the past seven years and to welcome *TCC* editor Graham Langer as a Trustee.

With a great programme of main line trains and heritage railway visits planned for *Tornado*, and further strides expected in the construction of *Prince of Wales*, 2017 has the potential to be yet another year of significant progress for the Trust.

Thank you again for all of your support for *Tornado* and *Prince of Wales* over my 16 years as Chairman. It's been an amazing ride and I'm sure that the best is yet to come. **TCC**

MANAGEMENT CHANGES AT THE A1 STEAM LOCOMOTIVE TRUST

Following the announcement at its convention last year that The A1 Steam Locomotive Trust is to build a new charter train (based around British Railways Mk3 coaches) and is seeking a new main line connected base in the Darlington area, the Trust is restructuring its management team to take on board these initiatives as well as to continue to deliver the Trust's on-going activities including its own-promoted railtours for No. 60163 *Tornado* and the construction on new £5m Gresley class P2 No. 2007 *Prince of Wales*.

Mark Allatt has advised the Trustees that after 16 years as Chairman of the organisation - and 26 years spearheading the Trust's marketing, PR and fundraising - he wishes to step aside from the Chairmanship and focus on the construction of No. 2007 *Prince of Wales* as P2 Project Director. Mark will continue as a Trustee and in addition to his leadership of the P2 Project, where he will prioritise PR, fundraising and marketing, he will also continue to have oversight of and contribute to the rest of the Trust's PR, marketing and fundraising activities, as well as playing an important role in the Trust's strategic planning across all of its commitments. David Elliott will continue to lead the engineering and Graeme Bunker the operations and commercial aspects of the P2 Project.

Trustee and Merchandise Director Gillian Lord recently decided to step down from the board after seven years of service. The Trustees would like to thank Gillian for all of her hard work over this time, building the Trust's merchandise operation virtually from scratch to be the envy of other main line steam locomotive owners and making a significant contribution to the Trust's fundraising operations.

Trustee and Operations Director Graeme Bunker will be expanding his existing role as Chairman of the Tornado Steam Traction Executive (which manages the operation of *Tornado*) and will lead all of No.60163 *Tornado's* support activities. In this role he will be assisted by Lt. Col Huw Parker as Deputy Operations Director and David Wright of Locomotive Maintenance Services as our Running Engineer. Sophie Bunker-James, the Trust's Education Officer will also be taking a more active role in the promotion of *Tornado* and its rail tours. One of Graeme's first tasks will be to lead the review of how the Trust manages its on-board team (stewards, merchandise, covenantor recruitment, future tour sales, etc) and heritage railway visits to maximise the returns for *Tornado*.



Graham Langer.

The Trust is pleased to appoint Graham Langer as a Trustee. Graham has been a covenantor since 2004 and a volunteer since 2008 and now edits the Trust's in-house publications (*The Communication Cord*, *The Tornado Telegraph* and *Mikado Messenger*) as well as being Trust webmaster. Graham is General Manager of Accucraft (UK) Ltd, which manufactures small scale live steam locomotives. Graham will continue to take the lead on all supporter communications.

As a reflection of the Trust's previously announced ambitions, Paul Bruce, a senior rail executive with significant property project experience, has been appointed as an advisor to the Trustees and will be leading the Trust's ambitious plans for an expanded, main line connected facility in the Darlington area.



Mark Allatt stands proudly in front of *Tornado* during her first moves at Darlington.

The change of structure means that the Trust retains strong leadership of both of its locomotives, ably supported by the many volunteers and suppliers involved with both of them, under the overall guidance of the Trustees. The process of recruiting a new Chairman has now begun, and further announcements regarding this (and other appointments) will be made over the coming months.

Speaking on behalf of the Trustees Graeme Bunker said, "On behalf of all us involved with *Tornado* and *Prince of Wales*, we would like to thank Mark for his dedication and commitment in leading the Trust during such a successful period. This has witnessed the completion of *Tornado*, the purchase and total rebuild of our support coach and now the exciting launch and first stages of building a brand new P2. Mark has been a passionate advocate of the Trust, working tirelessly over many years, and has been an instrumental part of the successful team since the launch of the project to build a new A1. We are very pleased that Mark is continuing to be part of that team and will spearhead the P2 project with passion, enthusiasm and commitment. As the Trust's activities expand, it is also a pleasure to welcome Paul Bruce to the team and Graham Langer as a Trustee."

Mark Allatt added, "After almost 16 years as Chairman of the Trust since taking over from our now President David Champion in 2001, 26 years leading the Trust's marketing, PR and fundraising as well as my numerous other Trust commitments, the role had become far too big for one person to manage in their spare time as a volunteer. I have therefore decided to focus my available time on leading the P2 Project, where we have already spent over £1m on construction and have received pledges from supporters for over 45% of the £5m needed to complete No.2007. I am also pleased to be continuing my oversight of all of the Trust's marketing, PR and fundraising activities which are also now far too large for one volunteer to deliver. I have hugely enjoyed my time as Chairman and would like to take this opportunity to thank all of the Trust's supporters for their support and generosity over this time. I look forward to being able to drive the construction of No.2007 *Prince of Wales* forward." **TCC**

UNDER PRESSURE ON THE 'BELMOND BRITISH PULLMAN'

by Graham Langer

Sometimes it's not just *Tornado's* boiler that's under pressure whilst working a rail tour. As many know, for *Tornado* to operate on the mainline it requires a support crew made up of volunteers to prepare, clean and operate the engine. At the head of this team is the Responsible Officer (known as the RO). It's their job to ensure the engine is prepared correctly and looked after and to ensure the support crew carry out their tasks safely and efficiently whilst working out on the national rail network.

In 2016 the locomotive had undertaken an enormous amount of work and it was identified that a couple of new RO's would be useful to work alongside the sterling efforts of Graeme Bunker-James, Huw Parker and David Wright, who between them had undertaken nearly every railtour. Having been a member of the Support Crew since 2009 and having experience working full time in a management role on a heritage railway, Andy Hardy put himself forward for consideration.

With the support of Graeme and Huw he started training and adopting the role under supervision on various rail tours during 2016. This was coupled with revision on various technical matters and some written scenarios about how to handle various eventualities. In December 2016 the time came for Andy to take the exam. Firstly a written paper on technical matters about

the locomotive, braking systems, faults and failures (and most importantly, how to deal with them) was undertaken. This 20 question paper was eventually completed as seven pages of detailed answers.

The big days came on the 6th and 7th December when the locomotive was prepared for and operated on a 'Belmond British Pullman' Surrey Hills luncheon train. The first day was spent ensuring the engine and support coach was properly prepared, cleaned and presented for its fitness to run examination and the completion of the relevant paperwork. The following morning the support crew were gathered for their morning briefing (given by Andy under the watchful eye of the Independent Person) where the day's safety notices, jobs, footplate representatives, fuelling and other operational matters are discussed. With the engine prepared, a final walk around was undertaken and the locomotive handed over to the DB Cargo footplate crew before leaving the depot and attaching to the train and move into Victoria.

After departing Victoria on time the RO gets a little time to sit down with the rest of the crew and watch the countryside roll by, but still keeps an eye and ear open for any potential problems. Soon, however, the train reached Shalford for the water stop and the support crew were readied for action. On arrival the locomotive's tender was

connected to the water tanker and refilled, the engine checked over and footplate staff spoken to making sure all was well.

With a good run back the train arrived on time into Platform 2 Stewarts Lane where the locomotive was finally checked over and put to bed ready for her duty on 'The Canterbury Christmas Tale' a few days later. However the exam was not quite over, the final task being to write his RO report and submit it to the relevant people (and examiner) once he returned home.

A few days later Andy received the feedback from the examiner and the Trust is pleased to say he passed with flying colours, allowing him to now 'go solo' as RO with his favourite locomotive and join the RO team alongside his mentors. **TCC**



Andy Hardy.

Adrian Chapman

TORNADO TOUR DIARY - 2017

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

- **Friday 31st March** – 'Belmond British Pullman' – The Golden Age of Travel (Surrey Hills)
- **Saturday 22nd & Sunday 23rd April** – Nene Valley Railway 'Best of British' weekend – NVR
- **Saturday 29th April** – 'The North Briton' – **SOLD OUT**
- **Monday 1st May** – 'The Heart of Midlothian' – Peterborough to Edinburgh – AISLT promoted tour – bookings through UK Railtours
- **Saturday 6th May** – 'The Talisman' – London King's Cross to Darlington – AISLT promoted tour – bookings through UK Railtours

- **Monday 29th May** – 'The Cornishman' – London Paddington – Penzance AISLT promoted tour – bookings through UK Railtours
- **Thursday 1st June to Sunday 4th June** – Bodmin & Wenford Railway
- **Sunday 18th June** – 'The Torbay Express' – Bristol to Kingswear and return – Torbay Express
- **Sunday 2nd July** – 'The Torbay Express' – Bristol to Kingswear and return – Torbay Express
- **Sunday 23rd July** – 'The Torbay Express' – Bristol to Kingswear and return – Torbay Express

- **Monday 28th August** – 'The Easterling' – London King's Cross to Great Yarmouth – AISLT promoted tour – bookings through UK Railtours
- **Saturday 16th September** – 'The Border Raider' – Birmingham for the Settle & Carlisle Railway - AISLT promoted tour -book UK Railtours
- **Saturday 23rd - Sunday 24th September** – Barrow Hill Roundhouse 'Pacific Power' weekend
- **Saturday 7th October** – 'The Tees - Tyne Express' – Dorridge to Newcastle and return - AISLT promoted tour - bookings through UK Railtours

Belmond British Pullman
Tel: 020 3117 1300
www.belmond.com/british-pullman-train

UK Railtours
Tel: 01438 715050
www.ukrailtours.com

Nene Valley Railway
Tel: 01780 784444
www.nvr.org.uk

Torbay Express
Tel: 01453 834477
www.torbayexpress.co.uk

‘BIGGLES’ AND A TORNADO by Huw Parker

When we hosted RAF Marham personnel at Wansford and they drove *Tornado* following the rededication of the nameplate (see TCC 44), I joked with two pilots as they climbed down from the cab: “Right, you’ve driven mine, when can I have a go in yours?” I never believed for one minute this would be possible, so when the invitation arrived to fly with one of 12 (B) Squadron’s aircraft ahead of the visit of selected Nene Valley Railway and A I Trust personnel to RAF Marham, I was speechless with excitement!

Huw Parker



‘Biggles’ is ready to fly.

The morning of my flight dawned cloudy and cool, but visibility seemed fair, so at least the English weather was onside. I must say I was getting excited as I changed into my issued flying clothing and we made our way to the Hardened Aircraft Shelter (HAS) and the aircraft. I was flying in a training aircraft, which meant there were flight controls in the back seat, unlike a strike aircraft where the rear cockpit has far more weapons, communications and navigation wizardry. It looked complicated enough for me as it was and took me some time to identify the controls I would be responsible for during the flight as some can only be set from the back seat. Finally, I was briefed, strapped in and ready to go – apprehensive but still excited. Now the last hurdle, would the aged aircraft pass the final tests and checks to let us go flying? At least the first engine started up well in the HAS, but to begin with, the control hydraulics would not function correctly and we spent some minutes warming up the circuits until all was well, next the GPS would not set up correctly inside the HAS, so I was given some instructions on what to do once we were outside. With the

second engine running, I could set the GPS system and we taxied towards the main runway before a further GPS fault delayed our take-off (*just like AWS & TPWS!* – Ed. After some brief instructions to allow me to restart the system, which fortunately worked, we lined up on the centreline to go.

This was it! The feeling of power from the two Rolls Royce engines just behind me was awesome and in just a few seconds, we were airborne and climbing away. The ground quickly disappeared below the cloud, but we soon broke through into beautiful sunshine and blue skies. Listening to radio comms. with air traffic, our planned route straight to BAE Warton was immediately amended as we were required to continue north for some time before being allowed to turn west towards Preston. We made a radar controlled approach to Warton runway, descending over Preston with good views of the city and the docks, before breaking off our approach and turning south down into Liverpool Bay. With RAF Woodvale and my hometown of Formby on the left of the aircraft, we turned hard right to avoid traffic departing Liverpool airport. This was my first experience of proper G forces and I have to say, caught unawares it was the most uncomfortable feeling. The G-pants inflated to force blood back into my body and my head and helmet felt very heavy indeed – it was probably a mild turn to experienced crew, but it took me a few moments to recover. Passing the wind farm on Burbo Bank, we rushed over the North Wales coast at Prestatyn descending to low level between Ruthin and Denbigh, up over the Horseshoe Pass and down into the Dee Valley at Berwyn on the Llangollen Railway – my home line! Passing familiar landmarks along the railway at Glyndyfrdwy and Corwen, we were now below the high ground either side; passing Bala, the weather started to close in so we climbed back into the sunshine and headed back to the East. Out over The Wash we descended to 250 feet above the sea at 250 knots and then accelerated with the afterburners to 500 knots before a vertical climb to 10,500 feet – just



Huw Parker

Huw on the ‘footplate’ of a very different Tornado.

awesome! Rolling out at the top was another stomach churner, but although I felt nauseous a couple of times I am pleased to report I did not disgrace myself and retained my breakfast!

I was able to take the controls for a short while flying straight and level and making some gentle turns – not all intentional! All too soon it was time to head back to Marham as the aircraft was flying a second sortie once we had returned. Guided back down the glide path and centre line by Air Traffic Control, we landed safely and taxied back to the HAS, to be met by Graeme and Sophie Bunker-James, who had come to share the experience. I know how rare an opportunity this was and cannot thank all those at RAF Marham enough for making this happen. It was a real privilege and I look forward to further opportunities to cement relationships between the A I Steam locomotive Trust and those who keep this remarkable aircraft in the air.

TCC



Huw Parker

Back on ‘terra firma’, Huw was greeted by Graeme and Sophie Bunker-James.

The Tornado Team by Sheila Seabrook

Our young members’ group, The Tornado Team, entered 2017 on a high. The Team celebrates its 5th birthday this year and has achieved a membership of 100. Interest in the Team has grown in all parts of the UK boosted by the Trust’s expanding tour programme and the increased opportunities to see *Tornado* in steam. For more details please visit www.aisteam.com/tornado-team

‘THE HEART OF MIDLOTHIAN’ - MONDAY 1st MAY 2017

A special Bank Holiday trip to Scotland



Geoff Griffiths

No. 60163 *Tornado* heads for Scotland on this unforgettable Bank Holiday day out! A Class 67 diesel begins our tour with a fast run along the East Coast Main Line as far as Tyne Yard, just to the south of Newcastle. Here *Tornado* will be waiting for the journey across the Tyne, through Newcastle Central and then onward through Morpeth and Alnmouth with fine clifftop views over the North Sea towards the Holy Island of Lindisfarne.

We cross the border just to the north of Berwick-upon-Tweed where we pause while *Tornado* takes water. Then it’s on via Dunbar to reach the Scottish Capital where we enjoy a break of around two and a half hours. Waverley Station is right in the heart of Edinburgh, with the elegant shops of Princes Street to one side and the Royal Mile and Castle to the other. There will be time to take a City Sightseeing open-top bus tour of the city - definitely recommended! TCC



Views across Edinburgh skyline.

- **First Class Dining**
Seats at a table for two* or four in a First Class carriage. Includes a silver service full English breakfast on the outward journey and a four course dinner on the return leg.
- **First Class Non-Dining**
Seats at a table for two* or four in a First Class carriage. Includes complimentary teas and coffees. A buffet car is also available.
- **Standard Class**
Seats at a table for four in a heritage carriage. An on-board buffet serving snacks and hot & cold beverages will be available.

TICKET	PRICES
First Class Dining	£235.00
First Class Dining	£149.00
Standard Class	£99.00

TIMES (PROVISIONAL)	OUTWARD	RETURN
Peterborough	06:00hrs	23:15hrs
Newark North Gate	07:10hrs	22:40hrs
Doncaster	07:40hrs	21:40hrs
York	08:15hrs	20:55hrs
Darlington	08:45hrs	20:15hrs

Terms and conditions are available on request. Guaranteed ‘tables for two’ in First Class Dining and First Class Non-Dining are available for a supplement of £25.00 per person. All profits from this tour go towards keeping *Tornado* on the main line in future years.

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

THE RETURN MATCH by Huw Parker

Following the re-dedication ceremony held on the Nene Valley Railway, when RAF Marham personnel were introduced to *Tornado* at Wansford, Trustees and volunteers from The A1 Steam Locomotive Trust and the Nene Valley Railway were invited to RAF Marham to learn more about the aircraft with the same name.

In a similar format to the Wansford visit, the roles were reversed as the visitors heard about the capabilities of the RAF's GR4 *Tornado* aircraft and the support from across Marham Station that kept them flying. After an excellent brief by one of the pilots, we were invited to get up close and personnel with a *Tornado* in a nearby Hardened Aircraft Shelter, or HAS. In two groups individuals had the opportunity to sit in the cockpit and hear first-hand what this *Tornado* is like to fly and walk around for a close inspection from the ground. Next the group travelled to Air Traffic Control at the tower near the centre of the airfield. From here all aircraft movements on the ground and arrivals departures are controlled. In addition, the radar room controls all military movements in the surrounding airspace.



Crown Copyright

A1 Steam Locomotive Trust and Nene Valley railway members at RAF Marham.

Following lunch in the Officers' Mess with some of our hosts, the final part of the visit was to hear how the RAF Armourers are responsible for all the equipment carried underneath the *Tornado*

from smart bombs and missiles, to long range fuel tanks and countermeasures such as flares and chaff to protect the aircraft whilst flying in hostile environments. **TCC**

• SHED NOTICES •

The big news since TCC 44 is that Graeme Bunker and Sophie James got married! On 18th November they tied the knot at Birtsmorton Court and continued the celebrations the next day on the Severn Valley Railway. We offer our congratulations to these two hard-working members of the AISLT! As an aside they have chosen to adopt the surname 'Bunker-James' so you'd better amend your address books!

Mr. & Mrs. Bunker-James on the Severn Valley Railway (with 'Gresley' the dog).



Sophie Bunker-James

GCA



A name plate from A1 No. 60146 Peregrine recently went under the hammer at Great Central Auctions, fetching £8,000.

'THE TALISMAN' - SATURDAY 6th MAY 2017

A trip to historic York and *Tornado's* home Darlington

Geoff Griffiths



Bedecked with Czech flags to honour the late Sir Nicholas Winton, *Tornado* is seen at Fenwick.

Recalling one of the most famous named trains of the East Coast Main Line, and one which often featured a Peppercorn class A1 Pacific in British Railways days, 'The Talisman' will enable you to travel to York or Darlington with steam from Doncaster and then, after a break, all the way back to the bufferstops at King's Cross.

A Class 67 diesel will hasten our train north to Doncaster, spiritual home of the LNER Pacifics, where No. 60163 will be ready and waiting. Our steam journey takes us to York, where you can alight for a break of some four and a half hours to spend time exploring the National Railway Museum, the Minster and everything else that this wonderful city has in store for the visitor.

Alternatively stay on board to Darlington, the town that brought railways to Britain and indeed to the world. Here you can take a three hour break, or jump aboard special buses that



Historic York, a view of the old city wall and York Minster.

- **First Class Dining**
Seats at a table for two* or four in a First Class carriage. Includes a silver service full English breakfast on the outward journey and a four course dinner on the return leg.
- **First Class Non-Dining**
Seats at a table for two* or four in a First Class carriage. Includes complimentary teas and coffees. A buffet car is also available.
- **Standard Class**
Seats at a table for four in a heritage carriage. An on-board buffet serving snacks and hot & cold beverages will be available.

TICKET	PRICES
First Class Dining	£235.00
First Class Dining	£149.00
Standard Class	£99.00

TIMES (PROVISIONAL)	OUTWARD	RETURN
London King's Cross	08:20hrs	22:05hrs
Potters Bar	08:35hrs	21:40hrs
Peterborough	09:45hrs	20:15hrs

Terms and conditions are available on request. Guaranteed 'tables for two' in First Class Dining and First Class Non-Dining are available for a supplement of £25.00 per person. All profits from this tour go towards keeping *Tornado* on the main line in future years.

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

TORNADO ON TOUR *by Andy Hardy* **‘THE BATH SPA CHRISTMAS EXPRESS’**



Above: In glorious winter sunshine, *Tornado* passes Crofton with ‘The Bath Spa Christmas Express’ on 1st December.



Above: The usual suspects! *Tornado*’s crew, Dave Proctor, Vince Henderson and James Clark pose with the locomotive on 1st December.



David Ireland

Left: On Friday 4th November, in less than ideal weather, *Tornado* passes Shere Heath with the ‘Belmond British Pullman’.

Above centre: Wednesday 7th December and another ‘Belmond British Pullman’ Surrey Hills excursion, seen here at Holmethorpe near Redhill.

Right: With *Tornado* in charge, the ‘Belmond British Pullman’ is seen at Abinger Hammer on the 17th December.

THE ‘BELMOND BRITISH PULLMAN’

Anthony Haynes



Left: During her visit to the Severn Valley Railway Gala on the 5th and 6th November, No. 60163 is seen at Bewdley with a set of carmine & cream Mk1 coaches in tow.



Nathan Gibson



Yoshi Hashida

TORNADO ON TOUR by Andy Hardy

‘THE CHRISTMAS CANTERBURY TALE’

On Monday 12th December *Tornado* once again travelled to Kent hauling ‘The Christmas Canterbury Tale’. Departing Victoria the engine effortlessly took the train out of London via Bromley South and Sevenoaks to collect further passengers. With everyone on board the special continued onto Tonbridge before taking the curve and joining the UK’s longest section of straight track for a run to Ashford. A steady run all the way to Ashford was achieved after the signallers allowed a passenger service to pass at Tonbridge. Although this can usually create some slow running it did allow the booked pathing stop in a loop outside Headcorn (where the passenger train was due to pass us) to be missed and allowed a non-stop run all the way from Sevenoaks.

Right: A wonderfully atmospheric photo of ‘The Christmas Canterbury Tale’ at Paddock Wood.

Bottom Right: *Tornado* is serviced at Canterbury West.

At Ashford the train took the line to Canterbury West arriving within a few minutes of the booked time. Passengers had ample time to visit Canterbury whilst *Tornado* shunted her train and went for servicing in the goods spur. With coaling, watering and oiling complete the locomotive once again took to the train ready for the return to London via Folkestone. Leaving Canterbury the locomotive got into her stride and lifted the train around the steep banks at Martin Mill before dropping down onto the newly refurbished sea wall between Dover and Folkestone. Once again the train headed to Ashford before turning back towards Tonbridge. A prompt water stop at Paddock Wood saw the tender refilled before setting off back to London and dropping off passengers at Sevenoaks and Bromley South.



Nick Burgess



Gary Lakin

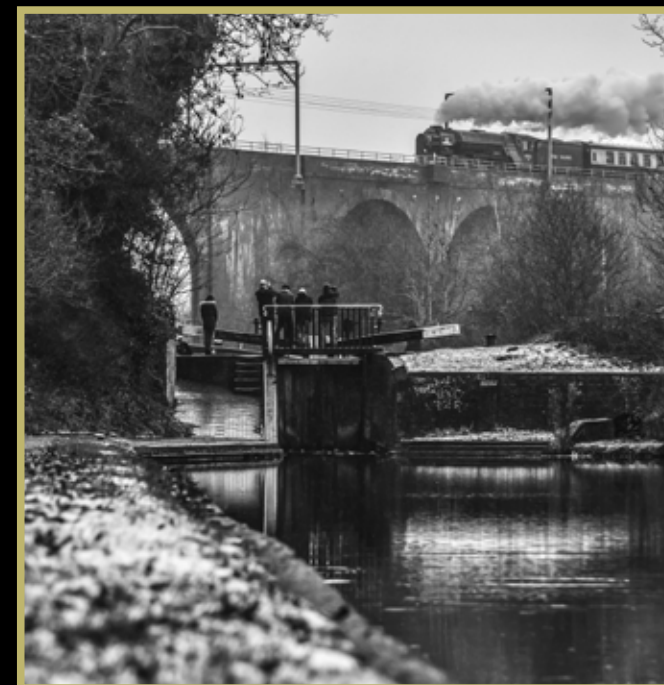
Arrival was perfectly on time allowing the passengers and members of the public time to admire the locomotive whilst she sat on the buffer stops of platform 2.

TORNADO ON TOUR by Huw Parker

‘THE RED ROSE’

‘The Red Rose’ support crew met at Stewarts Lane Depot on a cold, damp February evening and were very pleased that *Tornado* and her support coach were stabled indoors. We have been made very welcome by the Belmond British Pullman team and the Merchant Navy Locomotive Preservation Society, who have both supported us admirably whilst we have been working trains from the depot. Prior to the prep day and fitness to run (FTR) examination, our engineering team from Locomotive Maintenance Services undertook some minor running repairs in preparation for the next busy period of activity. All the cleaning and most of the FTR were completed inside the shed and once concluded, we moved the locomotive outside to finish the functional tests and blow down the boiler. On testing the sanders, one sanding valve failed to deliver sand onto the rail and this was remedied by emptying the sand box and refilling with clean dry sand. Finally, our FTR examiner was content and the engine was passed to run the following day.

The next day was an early start for half of the support crew, since the locomotive and coach were due off the depot at 06:20hrs to join the coaching stock in Battersea Loop. The fire had been kept alight overnight and a couple of trips to the footplate in the small hours ensured there was plenty to spread over the grate to bring the boiler pressure back up. Some final checks and last minute lubrication were completed before the locomotive was handed over to our first crew of the day. We were delighted to see Don Clarke return to the footplate as a Traction Inspector (TI), albeit supervised by Bob Hart, and under their experienced eyes, Paul Major and Pete Sheridan would share the driving and firing from London. A prompt departure and some excellent performances from drivers and locomotive saw *Tornado* running right time or early throughout, apart from a brief section between Northampton and Rugby where we lost just three minutes! The water stop at Rugby was completed on time and Driver Keith Murfin and Fireman James Cooper took charge on the footplate. A brief crew stop at Bescot Stadium picked up TI Gareth Jones and Bob Hart rode with us on the cushions in the support coach heading on his way home. Our first passengers alighted at Cosford to enjoy the RAF Museum there, whilst another group left the train at Telford to visit Blists Hill Victorian Town and Ironbridge Gorge before we arrived early at our final destination of Shrewsbury. Whilst our guests were enjoying the sights the various destinations offered, the support crew set about preparing the locomotive for the return journey. The engineering team conducted an examination and lubricated all essential components, whilst the tender was filled with coal and water. At the same time, on the footplate



Jim Knight

***Tornado* crosses Oxley Viaduct, Wolverhampton.**

another team cleaned the fire, removing any clinker from the grate and chucking it over the side before rebuilding the fire. In addition, we replenished the sand boxes from a supply carried on the support coach. Amidst all of this activity, there was time to service the support crew too, with copious amounts of tea and some lunch!

The trip home left slightly late, but otherwise the engine started well, running on average just three to four minutes late as far as Rugby. We were delayed at the water stop as the signaller tried to send us straight through the station rather than into the Up Through Loop where we were booked to take water. Fortunately, Driver Murfin spotted this and brought us to a stand in time to correct the error. With watering completed, we were on our way again, albeit at a crawl through Northampton due to an incident that had brought down the overhead wires on the slow lines, so we joined the queue of trains moving slowly from signal to signal until we were once more on the Fast lines and away. Another crew change saw Driver Wayne Thompson, Fireman Tim Steadman with TI Tommy Rees take charge for the final leg of the journey and we made up some time down to Wembley before swinging off through Willesden towards North Pole Junction and Kensington Olympia. Further complications were apparent passing Battersea Loop, which was occupied by a Freightliner train so *Tornado* remained attached to the train and was drawn back to the middle road at Kensington Olympia before we could detach and head back to Stewarts Lane Depot via the triangle at Wandsworth Road.

TORNADO ON TOUR *by Graham Langer*

SCHEDULED TRAINS ON THE SETTLE & CARLISLE RAILWAY



Geoff Griffiths



Mike Glen

Above: Despite the weak sunshine, it still looks pretty bleak as *Tornado* hauls her train across Ribblehead Viaduct, the wind blowing the exhaust into the valley.

Right: *Tornado* is seen at Blea Moor.



Lee Andrew Davies

Bottom right: Watering at Appleby, the tank and water columns were essential.



Andrew Southwell

Above: An Appleby bound service is caught at Garsdale.

Left: On the 15th February No. 60163 exits Blea Moor Tunnel.

Right: Some of the AISLT crew who helped make the Settle & Carlisle services work – Chris Smith, Andrew Hardy, Graeme Bunker, Ben McDonald (on the locomotive), David Wright, Tom Blight, Richard Peck, Katie Pearson and Jorge Gorman – photo taken with NR permission.



Andy Hardy



June Williams

AI PROFILE - No. 60116 HAL O' THE WYND by Phil Champion

The third of Peppercorn's AIs, No. 60116, was seen under construction at Doncaster Works on 9th August 1948 as Works No. 2033. With class production now speeding up it was one of a pair to appear that month. The unnamed No. 60116 emerged with LNER green livery with black and white lining but with 'BRITISH RAILWAYS' on the tender. The characteristic early AI plain chimney was fitted as it was believed that it would not disturb the airflow through the smoke deflectors.



Peter Townend

No. 60116 Hal o'the Wynd runs light engine thro' Peterborough North on Thursday 6th January 1955.

It was noted at Doncaster on 7th September and entry into traffic was from Heaton shed on 8th October. Early workings naturally featured the North East with sightings at Newcastle and Darlington. The first trains recorded were the up 09:00hrs 'Tees Tyne Pullman' and down return from 8th – 12th November plus a few more runs the following week and on New Year's Eve. Other workings included the Newcastle to Liverpool up train noted leaving Stockton at 11:15hrs on 1st and 25th April 1949 with 12 and 11 coaches respectively. Another Pullman hauled by No. 60116 was the down 'Queen of Scots' from Leeds to Newcastle on 6th May. Five times No. 60116 was logged on the up 'Northumbrian' between November 1950 and July 1951; that on 24th May working into King's Cross while 25th July's run from Newcastle included the 'Coronation' restaurant car. Rosters included runs to Edinburgh Waverley, it being noted there on 31st July 1950 and it was seen on Haymarket shed on 13th September then

14th January 1951. Most sightings though were at Newcastle and King's Cross or stations in between. Normal overhauls were done at Doncaster; however on 17th October 1950, No. 60116 visited Darlington for weighing.

Changes to No. 60116's appearance came in the early 1950s. Repainting into BR express passenger blue was accomplished in March 1950, making it one of the first members of the class to be so treated. A lipped chimney replaced the plain one, improving the aesthetic appearance. May 1951 saw No. 60116 named after a character from one of Sir Walter Scott's 'Waverley' novels. Hal o' the Wynd is an alternative name for Henry Gow (Gow is the Gaelic equivalent of Smith) in 'The Fair Maid of Perth'. He was a squat but powerfully built, prosperous blacksmith in Perth who was "known to Highland and Lowland as the best armourer that ever made sword and the truest soldier that ever drew one." The word 'Wynd' (pronounced 'Wined')

refers to a back street or alley. Although third in the class it was the 42nd AI to be named. It has been commented that the choice of name was superb as No. 60116 patrolled the Borders! During 1950/51 the Flaman speed recorder fitted from new was removed as with the other 19 AIs so equipped. In August 1952 locomotive and tender were repainted in BR green. *Hal o' the Wynd* had its smokebox numberplate and nameplate transposed because of difficulty in fitting train headboards. The numberplate was moved down over the upper door hinge and the lamp iron lowered. This modification was applied to the rest of the class as they went through the works.

Work in the 1950s seemed to comprise chiefly the East Coast Main Line. 'The Heart of Midlothian' seems to have been a favourite for *Hal o' the Wynd* with logs for 1952/3 and especially 1955/6. Often these were the up working taken forward from Newcastle but also the down train from Peterborough to Newcastle. Also

hauled were the down 'Queen of Scots' like the 8th October 1951 run from Leeds to Newcastle, the up 'Tynesider' from Newcastle on 3rd January 1954 and the down 'North Briton' from Newcastle on 11th April 1955. From October 1955 to June 1956 No. 60116 could often be found on 'The Norseman' (Saturdays only) from King's Cross to Tyne Commission Quay though it is likely that the Pacific was taken off at Newcastle. At 06:40hrs on 17th September 1957 found *Hal o' the Wynd* arriving at King's Cross with the up 'Night Scotsman'. Less auspicious was No. 60116 failing on 28th December 1954 with the 08:00hrs Newcastle to King's Cross at Peterborough with V2 No. 60866 taking the train forward - though it was seen back in use that afternoon passing Retford with the 14:00hrs ex-King's Cross to Edinburgh. Many times between 1957 and 1960 but particularly in 1958 No. 60116 brought the up 'Queen of Scots' into Newcastle though a few times in 1959 it was seen bringing the train from Edinburgh into Newcastle. While unnamed trains between London and Tyneside were pulled there were runs via the Durham coast such as the 07:53hrs Sunderland to King's Cross on 24th November 1954.

Other duties, however, appeared. These included the afternoon 13:26hrs ex-Carlisle on the Waverley route on 14th August 1953. Goods trains on the main line were rostered through the decade, ones on 10th October 1953 and the following 3rd July being seen in County Durham as well as one in York on 27th April 1957. The 10:15hrs York to Great Yarmouth run was double-headed by No. 60116 and BI No. 61338 as far as Doncaster on 18th April 1953. The East Coast section of cross-country trains were pulled like the afternoon Birmingham train recorded at Low Fell on 8th May 1954 or trains into Yorkshire like the 11:15hrs Newcastle to Leeds observed three times between February and May. Casual light repairs could be at Doncaster as on 10th August but they were also carried out at Gateshead Works on 20th October. A double-header with No. 60126 *Sir Vincent Raven* was noted on 16th June 1956 with the 13:03hrs Newcastle to Birmingham. Double-heading with A2 60511 *Airborne* on the 08:05hrs Birmingham to Newcastle occurred from York on 27th September 1957. Two months later the emblem on the tender was changed to the later BR crest. Workings in Scotland were customary for North East AIs, two noted in this period were the 14:05hrs Edinburgh to Perth on 5th July 1958 and the 09:30hrs from Glasgow to King's Cross on Sunday 28th February 1960 as far as Newcastle.

Observations in the early 1960s feature

servicing at Gateshead shed with stabling at Heaton or York. Along with most AIs a Smith-Stone speed recorder was fitted. 'The Northumbrian' was worked a number of times in 1960/1 both down trains into Newcastle and up trains from that city. Durham coast workings still sometimes featured like No. 60116 hauling the Sunderland to King's Cross on 29th April 1960 as far as Grantham, arriving there at 11:30hrs, returning on the down 'Tees Thames Pullman'. Before reallocation, other named trains featured. On 13th June *Hal o' the Wynd* hauled the IE14 'Queen of Scots' into Newcastle. Three days later it powered the down Anglo-Scottish Car Carrier from there to Edinburgh. Special or unusual workings featured No. 60116, one being an ECML diversion past Lincoln on 22nd January 1961. While additional King's Cross to Newcastle or Edinburgh trains were rostered for No. 60116 in 1961/2 it also brought the 09:55hrs Whitley Bay to Glasgow into Newcastle on 7th July 1962. Off its usual track were the up 'White Rose' on 6th September 1961 and a down pigeon special from Dringhouses on 5th July 1962. As always throughout its life, goods trains were worked like the coke train from Newcastle to Carlisle on 18th October 1960.

The last of No. 60116's eight boilers was fitted in June 1962 and this lasted until its withdrawal. It was one of the Thompson Diagram 117 boilers notable for having the dome fitted further forward and for having thicker barrel plates. After 14 years shedded at Heaton, No. 60116 was one of ten AIs reallocated from there to Tweedmouth - right in the Border country - for goods and regular passenger work. The latter included the car carrier and the 'Queen of Scots' as well as local trains such as the 07:28hrs 2G85 Berwick to Newcastle. Goods and parcels trains featured in 1962. A Class F freight from Heaton to Thornaby was logged at Newcastle at 14:50hrs on 12th June. Nine and eleven days later No. 60116 left Newcastle at 15:05hrs with an additional afternoon parcels to Edinburgh. Early 1963 parcels workings included Newcastle (originating at York) to Edinburgh and Berwick to Newcastle. Of note is a down excursion from Newcastle at 10:40hrs on 16th May. Ten days later it had worked further north as it was seen in Perth shed yard in steam. Running from Carlisle happened on 17th, 19th and 21st June when it took the Euston to Perth train forward. A seed potato train was recorded with No. 60116 on 22nd and 25th November. Though based at Tweedmouth, servicing was frequently carried out at Gateshead with a visit to Heaton also noted. An undated

sighting is of *Hal o' the Wynd* passing south through Seaburn on the Sunderland line one morning in 1963.

Trains recorded in 1964 were mostly in the North East. They include the 2G85 Berwick to Newcastle and return, 8S57 and a down passenger from Newcastle on 20th May though passenger runs featured much less with more reliance on goods trains, 21 being recorded this year. They range from heading north past Alnmouth, York to Tyne Yard freights, a down minerals through Newcastle, Tyne Yard to Millerhill and 6S49 Carlisle to Niddrie West. An exception was a 14th February duty of the 14:42hrs Corstophine to Edinburgh then 15:30hrs south to Berwick and again on 14th March. One parcels noted was the 10:40hrs Newcastle to Leeds on 25th September. Reallocation to Gateshead came on 18th October. The last recorded workings of No. 60116 were on 24th October when it was seen on Darlington shed at 04:30hrs before pulling a down Class F York to Low Fell goods after which it went to Gateshead shed. Withdrawal from traffic of this magnificently-named locomotive came eight months later on 14th June 1965 though it had been removed from Gateshead shed to Tyne Dock shed for storage on 11th March. It had last been seen in steam on 28th February in Gateshead shed yard. With a service life of 16 years 8 months it lasted a year and a half longer than the class average, in fact it was among the ten longest surviving AIs. Sold for scrap to Hughes, Bolckow of Blyth, Northumberland the following month, it was towed by Q6 No. 63366 on the morning of 4th August to its final destination. It was last seen there on 27th August. A sad end for a hardworking North East engine which patrolled its Border homeland well for nearly 17 years, while still giving a good account of itself over the rest of the LNER system in between.

Footnote: Brothers David and Philip Champion saw No. 60116 Hal o' the Wynd a number of times in the early 1960s when on locospotting trips to Newcastle, Heaton and Seaburn which gave rise to the cry, "Not Hal o' the Wynd again!!!" Only years later did they realise what they now missed, and No. 60116 became their favourite AI! It was particularly the memory of this locomotive, together with other inspiring members of the class, which prompted them to get involved in the AI project at a very early stage in 1990. David devised the financial plan under which No. 60163 Tornado was built and later became Chairman for eight years. Philip became Editor of the in-house magazine for 11 years.. TCC

Tornado powers through Wolverton with 'The Red Rose'.



P2 ENGINEERING UDATE by David Elliott

Frames

The leading brake stay has finally been completed, delivered to Darlington locomotive Works (DLW), trial fitted and with minimal fettling has now been wet assembled to the frames with temporary bolts. (Wet assembly is the technique of applying a coat of primer paint to both surfaces and clamping the surfaces together when the paint is still wet to make a waterproof seal to reduce the risk of rust forming at the interface between the components). The next stage is to enlarge the holes by drilling, reaming and countersinking and to fit the driven bolts and Philidas nuts. The coupled hornblock liners have been detail fitted. The hornblocks have been surveyed for squareness across the frames and distance between cut-outs both with and without the liners in place and the results are very good, showing the benefit of the accuracy achieved using CNC frame machining. All the liners have a small amount of "meat" on them which means that it should be possible to set up the cannon/axle boxes with by surface grinding precisely so as to avoid the use of shims. The tender rubbing plate has been case hardened by Holts of Halifax. We achieved a quantity discount by sharing the furnace with the rubbing plate for the B17 Sandingham Trust and halving the unit cost. Since then the plate has been ground back to flat and a special set of driven bolts ordered to attach it. In the meantime the volunteers have removed the footplating under the cab to enable the drag box to be prepared for painting internally which



All photos David Elliott



will be done after the rubbing plate has been fitted – once the footplate is permanently fitted, access for painting will no longer be possible. Ian Matthews has continued the final fitting of the footplating to the location where it has to remain temporary to enable motion brackets and cylinders to be fitted in the future. Ian and the volunteers have been working on a set of profiles which we had made for the brake hanger brackets. As these are small enough to fit on our Bridport milling machine, the decision was made to make them 'in house'. North View has welded the two parts of each bracket together.

Above: A full set of stays in place.

Left: The leading brake stay is trial fitted.



Bob Hughes

Above: Ian checks the hornblocks for squareness.

Right: Ian Matthews sets up the leading brake stay.



Bob Hughes

Cab

The volunteers have completed fitting of the cab side window runners and drilling and tapping the brake control equipment to fit its lids. My first attempts to find a CNC machinist to machine the spectacle window castings for a reasonable price have not yet been successful so the net will be spread wider.

Right: The cab footsteps in place.

Far Right: Footstep on curved footplate.



David Elliott

David Elliott

FUNDRAISING FOR No. 2007 PRINCE OF WALES

Over £1m now spent on construction! by Mark Allatt

Pledges towards building No. 2007 *Prince of Wales* have passed £2.25m just 2½ years after project's launch. Public interest in seeing a new Gresley class P2 become a reality sooner rather than later remains high and 800 people have already signed up to the 'P2 for the price of a pint of beer per week' (£10 per month or more) covenant scheme since its launch two years ago.

In addition to this core scheme, funds have been raised through The Founders Club (over 360 people have donated £1,000 each – target 100 people, now closed), The Boiler Club (115 people have pledged £2,000 each - target of 300 people), Dedicated Donations (almost £200,000 from existing supporters sponsoring a variety of components) and the The Mikado Club (now 115 members). In addition sponsorship of the locomotive's distinctive front-end by The Gresley Society Trust has meant that the project has already received donations and pledges of over £2m (including gift Aid) of the £5m needed over the planned seven year build.

We are delighted with the level of support that the project to build Britain's most powerful steam locomotive has received since its launch. This means over £1m

converted into metal (20%), over £1.25m raised (25%) and over £2.25m pledged (45%).

We are hopeful that we will have completed the rolling chassis for No. 2007 *Prince of Wales* by spring 2017 – see our wheeling appeal on page 24 - and we remain on-track for completion of the new locomotive in 2021. However, to maintain this rate of progress we need to continue to raise in excess of £700,000 per year, which given the nature of the regular donation scheme becomes more challenging as each year passes.

We would encourage all of our supporters who haven't yet contributed to this exciting project to help us to meet these deadlines by becoming a monthly covenantor, joining The Boiler Club, taking out a Dedicated Donation or subscribing to The Mikado Club. It's time to get on board!

This year will see further major announcements as the construction of new Gresley class P2 No. 2007 *Prince of Wales* gathers pace.

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



Smokebox

Following the set-up of the smoke box for the convention, Ian has been continuing to permanently fit the closure panels and smoke lifting plates. He has almost completed fitting the beading to these. Ian has also completed welding of the baffle and doubler plate to the back of the door and has had the volunteers busy polishing the door hinges and centre boss.



Above top: The smokebox restored to its correct position.

Above centre: With the saddle in place the smokebox could be lifted back on.

Left: The temporary smokebox saddle is re-installed.



Wheelsets

With creation of an assembly drawing for the modified crank axle, the complete kit is now with South Devon Railway Engineering (SDRE) for assembly. An order has now been placed on SDRE for assembly of all the engine wheelsets. The other axles have been delivered to Unilathe to have stress relief grooves cold rolled and, for the coupled axles, keyways machined. The Cartazzi axle is having the threads and slots machined for the bearing retaining nuts and locking bars. Delivery has been promised after the first week in February. In the mean time they are progressing with crankpins and details – the crankpin nuts for three crankpins and the bolt, nut and washer assemblies for the leading crank pins are now at DLW.

Timsons are progressing with machining axle and cannon boxes now that the problem with welding manganese steel liners to them has been solved by North View Engineering in Darlington. They have completed almost all the roller bearing spacers, thrower rings and thrust washers and we have those for the Cartazzi axleboxes along with the axleboxes themselves at Darlington. The leading and driving axlebox trunnion guide plates are also finished.

The first attempt to achieve the laser scanning of the coupled wheels was not successful, the contractor discovered that their software would not produce a solid model in a format compatible with the Solidworks 3D CAD. We are presently discussing the matter with another scanning company. We will be shortly carrying out a steam age static balancing exercise by balancing each wheel in turn flat on the floor on a knife edge twice with the knife edge at 90 degrees on the second occasion. This will enable us to establish the centre of mass in the plane of the wheel which will suffice for Andrew Hemming to start the detailed balance calculations.

Below: Trunnion guides for the leading and driving coupled axleboxes.



Pony truck pintle and nut.



Crank pin nuts and bolts.



Above: Cartazzi roller bearing spacers.

Below: A full set of roller bearing spacer, thrower, abutment and adjustment rings.



Cylinders

William Cook Cast Products (principal sponsor of *Tornado*) decided that casting the cylinder block was too complicated a task; however, the firm is prepared to help with the smaller castings intended for incorporation in the otherwise fabricated cylinder block where the shape of steam passages and valve chests are difficult to achieve by fabrication.

Tender

Following a meeting with Andrew Cook, Wm Cook Cast Products has quoted for all the remaining steel castings for the locomotive including all those required for the tender. This would permit a start on erecting the tender frames later this year.

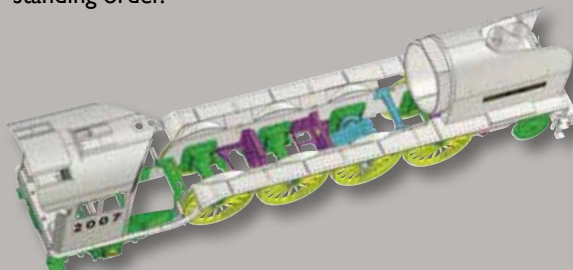
“We want eight and we won’t wait - let’s make a Mikado!”

Help us to wheel new Gresley class P2 2-8-2 No. 2007 Prince of Wales during spring 2017

Following the success of The Founders Club (to get the project to the point of cutting the frames) and The Boiler Club (to fund the construction of the boiler) we have decided to establish The Mikado Club to fund the wheeling of No. 2007 Prince of Wales.

We set an initial target for The Founders Club of at least £100,000 from 100 ‘Founders’ but due to the overwhelming generosity of our supporters we actually raised £450,000 from 360 donors. Our aim for The Boiler Club is to raise at least £600,000 from 300 supporters each donating £2,000 in up to 40 payments of £50 and we are already over one-third of the way there.

If we are to remain on schedule to complete No. 2007 Prince of Wales in 2021 we need to wheel the engine by spring 2017. We have therefore set ourselves the challenge of raising £200,000 through The Mikado Club from 160 supporters each donating £1,000 (plus Gift Aid) to the project in up to eight payments of £125 by standing order.



CAD model showing where we expect to be when this appeal is successful.



Special benefits for members of The Mikado Club

- Reserved seat on one of No. 2007’s first main line trips
- Reasonable access to No. 2007 at all times
- Opportunity to buy exclusive Mikado Club badge
- Opportunity to join one of the teams building No. 2007
- First choice of other components to sponsor
- Special Mikado Club day with Tornado
- Special limited edition version (signed/numbered) of Stephen Bainbridge’s new painting of No. 2007 Prince of Wales at Darlington station



Join The Mikado Club today!

Thank you for your valued support.
Together we can build this remarkable locomotive!



2007 PRINCE OF WALES
 Building Britain’s Most Powerful Steam Locomotive

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

Fittings

The superheater header casting has been completed at South Lincs and is satisfactory following a hiccup with the testing. The test specimen cast at the same time as the header just failed the tensile test, however it was possible to cut a piece off the casting itself (which would be machined off anyway) which has proved to be well in specification. Whilst several of the bronze boiler fittings are presently being made using patterns originally made for Tornado, new patterns are required for steam valve hand wheels. As several hand wheels are needed, wooden patterns would normally be the chosen method, however as all the components for Prince of Wales are being drawn in 3D CAD, the opportunity has been taken to use up-to-date manufacturing methods in the form of 3D printing. Ideally the hand wheels would be made by 3D printing bronze, however this technology is still in its early stages, and conventional casting is presently the most cost-effective solution. However, the patterns are strong candidates for 3D printing in plastic and have been made for the Trust by Shildon Manufacturing Company and the castings by South Lincs Foundry at Spalding. Further use of 3D printing technology will be made as the project progresses.



1-2in atomiser steam valve hand wheel.



4in steam stand valve handwheel.



Handwheel patterns assembled.



Handwheel patterns split.



Handwheel finished castings.

Design and engineering management

The main course of activity has been in producing manufacturing drawings for several detail parts including cab footsteps and the footsteps on the curved part of the footplating as well as assembly drawings for wheelsets. The manufacturing drawing for the frame stay and four spring hangers located between the leading and intermediate wheelsets is almost complete, to be followed by the remainder of the spring hangers. **TCC**

Attention all Boiler Club Members!

P2 Boiler Club Exclusive Badges Are Now Available To Purchase

To purchase your badge please send a cheque for £5 made payable to ‘The P2 Steam Locomotive Company’ and send to The A1 Steam Locomotive Trust, Darlington Locomotive Works, Hopetown Lane, Darlington DL3 6RQ.



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

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



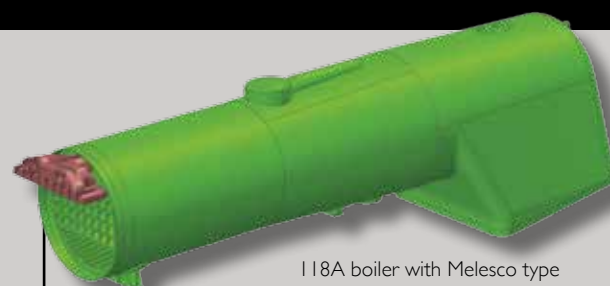
The boiler is the beating heart of a steam locomotive and to keep the construction of No. 2007 *Prince of Wales* on schedule for completion in 2021, we need to place the order for the boiler this year for delivery in 2018.

We have established The Boiler Club to fund the construction of *Prince of Wales's* boiler. It is our desire to leave No. 2007 *Prince of Wales* debt free upon completion and therefore our aim is to raise at least £600,000 for The Boiler Club from 300 supporters each donating £2,000 to the project (in up to 40 payments of £50 by standing order) – we are already over a third of the way there.

Special benefits for members of The Boiler Club:

- Opportunity to buy ticket (seat already reserved) on one of No. 2007's first main line trips
- Reasonable access to No. 2007 at all times
- Opportunity to buy exclusive Boiler Club badge
- Opportunity to join one of the teams building No. 2007
- First choice of other components to sponsor
- Special limited edition version (signed/numbered) of the first official painting of No. 2007 *Prince of Wales* with No. 60163 *Tornado*
- Special Boiler Club day with *Tornado*

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



118A boiler with Melesco type
superheater header as used on
Tornado

No. 2007's boiler in detail

- Use of diagram 118A *Tornado* boiler with detailed modifications to improve overhaul life
- Interchangeable with *Tornado* boiler
- *Tornado* boiler is 17in shorter than P2 boiler – No. 2007's smoke box will be extended within the cladding
- 250psi of No. 60163's boiler will be retained to improve economy and increase maximum power



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

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Covenantors' Diary by Gemma Braithwaite



SAVE THE DATE - 30th September 2017. The A1 Steam Locomotive Trust's annual convention at the Mercure King's Hotel, Darlington. Hotel rooms are limited and we have reserved every room left in the hotel. If you would like a room you will need to call 01325

380222 and specify you are from The A1 Steam Locomotive Trust, otherwise the system will show there aren't any rooms available. Price for Bed and Breakfast is £68.00 single, £78.00 double. More information on the convention arrangements to follow.

The A1 Steam Locomotive Trust has announced that it will be holding a number of presentations on the project to build new Gresley class P2 No. 2007 *Prince of Wales* along the route of the East Coast Main Line from London to Edinburgh and all the way to Aberdeen during 2017. Following very successful meetings in London and Peterborough the next venues will be:

- **Saturday 18th March 2017** – Doncaster Museum & Art Gallery, Doncaster
- **Saturday 22nd April 2017** – York Railway Institute, York
- **Saturday 13th May 2017** – Darlington Locomotive Works, Darlington
- **Saturday 17th June 2017** – Newcastle Mining Institute, Newcastle
- **Saturday 1st July 2017** – Edinburgh Jury's Inn, Edinburgh
- **Saturday 14th October 2017** – Dundee Heritage Trust Discovery Point, Dundee
- **Saturday 25th November 2017** – Aberdeen Jury's Inn, Aberdeen.

If you would like to volunteer at Darlington Locomotive Works, please contact volunteers@a1steam.com We have a number of roles within both engineering and administration.

TCC

P2 DEDICATED DONATIONS UPDATE JANUARY 2017

by Mandy Grant

December to January has seen a healthy increase in component sponsorship following our Christmas campaign. 35 individual components were sponsored, raising £6,655.00 before gift aid.

We are most grateful to all of our supporters who have responded to the Dedicated Donations campaign! Since its launch in 2014, 296 individual components have been sponsored as part of the Dedicated Donations Scheme, this is in addition to many of the smokebox components which have been sponsored directly by The Gresley Society Trust. Components sponsored through the Dedicated Donations Scheme range in price from one of over 1,000 driven bolts & nuts for £25, to the complete exhaust steam injector for £15,000. We have just listed the 4 x 12" Air Brake Cylinders, (two on the locomotive and two on the tender) and all are available to sponsor at a cost

of £1,500 each and can be paid for as a one-off donation of £1,500, or in 25 monthly instalments of *£60.00.

If you would like to sponsor a component on No. 2007 *Prince of Wales*, or you know of a business owner or company who may be interested in sponsoring an item, please contact us at dedicated.donations@p2steam.com

*Other payment options may be available upon request. Please contact us at the above email address to discuss.

TCC

Right: Some of the latest components released to sponsor are the 12" Air Brake Cylinders of which there are four in total. This is a spare from *Tornado*, temporarily fitted to No. 2007's frames.



David Elliott

Attention all Mikado Club Members!

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'WORKSHOP NOTES'

JAMES MAY AT DARLINGTON LOCOMOTIVE WORKS (AGAIN!)

James May, TV presenter, media celebrity and steam enthusiast has made the appropriately named 'slacking cock flange' for No. 2007 *Prince of Wales*. The TV presenter of *Top Gear* and *The Grand Tour* fame has already applied his engineering prowess in crafting the first component for No. 2007 when he last visited Darlington Locomotive Works in February 2013. Then he manufactured the smokebox door dart, the component at the front of the locomotive that secures the smokebox door shut (resembling the hands on a clock). Yesterday, using materials and tools at Darlington Locomotive Works, James created the more complex 'slacking cock flange' which connects the high-pressure hose (slacking pipe) to the boiler and controls the volume of water used to wash away coal dust on the footplate of a steam locomotive.

James commented, "Not many man-made machines stir the soul, but a full-blown steam locomotive is right up there, and we invented it. However, over the decades we've lost so much of the talent, skill and knowledge needed to build them. That's why it's such a thrill to work alongside the team building No. 2007 *Prince of Wales*, determined to not only resurrect this monster from the past, but to improve it using modern wizardry to do so. It's a real privilege to know that when *Prince of Wales* eventually roars past me at a station, I can proudly say along with many others that I helped build that... and it works!"



VTEC

Above: James May was delivered to Darlington in the cab of a Class 91 electric locomotive courtesy of Virgin Trains East Coast. VTEC supports the Trust by providing passes for its services.

Left: James May boring out the cone in the nipple for the incoming water connection of the slacking cock flange.

Below: Tom Ingall from the BBC recorded James' visit.



A/SLT



A/SLT



Above: The part finished slacking cock flange.

David Elliott

THE TRAIN IN SPAIN

Carlos Abadias and a colleague from the Associació per a la Reconstrucció de Material Ferroviari Històric (ARMF www.armf.net), a charity trust that works in the restoration of steam engines and running them on the main line in Spain, visited Darlington Locomotive Works in December. They were given a tour of the works Gemma Braithwaite and Ian Matthews and had a chance to see progress on No. 2007.

Left: Carlos is seen with Gemma Braithwaite and Ian Matthews at DLW.



Carlos Abadias



On 4th March Great Central Auctions will be selling a worksplate from No. 2006, *Wolf of Badenoch*, which carried works' number 1842 dated 1936. (note the addition, 'Rebuilt 1944').

Photo courtesy of GC Auctions.

DARLINGTON LOCOMOTIVE WORKS

The new lighting installation in the main workshop is now complete; it is a major success having resulted in an energy saving of approximately 37% when using our normal level of lighting. The total load has dropped from 4.2kW to 2.66K but in normal use (only two rows on) it is now 1.67kW. The previous illumination level was about 300Lux maximum and the new level maximum has been measured as 450Lux. It is a pure white light and because of the wider spread of light from the new luminaires, there are very few shadows. The new luminaires are rated at 67Watts each as opposed to the 140W of the old fluorescent fittings.



Tony Lord

Darlington illuminations! The brighter and much more efficient lighting at DLW.



Hugo Marsh of Special Auction Services reports that his firm have recently had examples of Marklin's O Gauge P2s up for auction. The model was available as No. 2001 *Cock o' the North* and as an un-named, black No. 2002. Prices have varied between £7,000 and £17,000 for these rare models.

LEEDS MODEL RAILWAY SOCIETY EXHIBITION

For the third year running we attended the above event, held on 29th & 30th October. It is always a popular show with plenty of layouts and trade stands. Mandy Grant and Gemma Braithwaite looked after things on the Saturday but were joined by Mark Grant on the Sunday. The weather was kind and encouraged a reasonable turnout and there was plenty of interest in the P2 project. One new covenantor was signed up and lots of leaflets handed out. This show concluded our roadshow events for 2016.

P2 PROFILE – No. 2003 LORD PRESIDENT by Andy Hardy



No. 2003 when new.

Green livery the engine was repainted in plain black livery during 1942 with 'NE' replacing the full 'LNER' on the tender sides. At the same time the valances forward of the cylinders were removed to make access and maintenance easier during wartime conditions. No. 2003 was the last P2 to be rebuilt as an A2/2. The engine entered the works in September 1944 and its rebuilding was completed on 17th December 1944. Re-entering service at King's Cross shed it was soon transferred North to Gateshead and then onto Haymarket followed by a brief spell back at King's Cross before returning to Haymarket for a three year spell. During this period, in June 1946, the locomotive was renumbered 503 under the Thompson re-numbering scheme. The engine was later renumbered 60503 on 18th September 1948.

When it became apparent that the A2/2 locomotives were not suited to the heavy Scottish work they were transferred south of the border for different duties. No. 60503 was allocated to York on 27th November 1949 followed by a short, one month, spell at Leeds Neville Hill on 27th November 1950 before a return to York. *Lord President* lasted another nine years until November 1959 when the locomotive was withdrawn and cut up at Doncaster Works. **TCC**



Left: *Lord President* is seen at Edinburgh.

On 13th June 1936 the first locomotive in the last batch of P2's entered service. Like its sisters, No. 2003 was built at Doncaster and gained the works number 1836.

The locomotive and its later sisters were substantially the same as No. 2002 except they had a fully streamlined front-end, the same as fitted to the A4 locomotives that had been developed and introduced the previous September (the only obvious difference on the P2's was the inclusion of an external steam pipe). Gresley was fond of this new arrangement as scientific study at City and Guilds College, London had shown the advantages in smoke clearing this arrangement offered whilst the LNER publicity department liked the sleek lines of the locomotive and how it fitted into the 1930s modern lifestyle. Unlike the A4s the P2s only ever carried the streamlined valances ahead of the cylinders, valances behind the cylinders were not incorporated to allow greater access to the wheels and motion for maintenance.

The new locomotives were also equipped with straight sided tenders and minor modifications to the cab back including the removal of the beading along the back edge. In this form *Lord President* became the standard model for the P2 class, with each of the other locomotives receiving minor alterations. After running in, the locomotive was allocated to Haymarket Shed before being transferred to Dundee in September 1936, returning to Haymarket on 23rd October 1942. A month later the engine was recorded as being transferred to the North East Area. The locomotive once again returned north in March 1944.

From new the locomotive carried boiler No. 8796 until December 12th 1942 when, during overhaul at Cowlaers, it received the boiler No. 8785 from sister engine *Earl Marischal*. Originally outshopped in full LNER Apple



Below: No. 60503 as rebuilt by Thompson.

DIGITAL PHOTO RESTORATION - The art of Pixel Persuasion!

by Steve Armitage

Steve Armitage is one of our ‘back room boys’, assisting Tony Watson and the archive imaging team with the restoration of some of the unique images licensed to the Trust. The quality of this work ensures that old black and white images or negatives are fully restored before being digitally preserved for posterity. If you have a collection of steam era images that the Trust could use, please contact tony.watson@a1steam.com

I can only offer a few of my own preferred techniques and it may be that your own personal preferences could be at odds with my suggestions, but I hope the following will prove to be helpful in deciding what might be best for you.

SCANNING - All images are best restored from a good quality scan of your print, slide or negative. If you have the option, lower contrast scans retain better detail. I produce a scan that has a resolution of 300 dpi and a target WIDTH of 29.7 cm (i.e.A4 wide). Different scanners will allow you to do this in a variety of ways, but this is a scanned size that you should be aiming for. I've found that A4 width gives an optimum size for quality screen projection or producing a good print. The resulting JPEG file size is usually about 2.5 to 4mb. I've never found a need to have massive file sizes or use TIFF unless you wish to, nor do I use my scanner's ‘built-in’ sharpening or dust/scratch removal software so either switch it off or set it to minimum. Believe me - Photoshop's tools will do a far better job!

RESTORATION - The history of the world cannot be written in thousand words; neither can the techniques of using Photoshop effectively! Many options within Photoshop are of little or no use but if you use this brief guide you can probably ignore the more esoteric ones.

Always make two copies of your scan by duplicating the file. Work with just one of them and as improvements are made to your liking **save** the result, duplicate the file again and delete the original. Continue in like manner throughout. You can always use your ‘undo’ or ‘back’ keys if you make a mistake. Photoshop always offers the option to **fade** an applied effect and that's very useful if you think you've used too heavy a hand. I'd suggest your initial task is to remove all the various types of blemishes, usually consisting of spots, scratches and dust marks.

TOOLS - Here's where you get to try out the three tools that will probably be of most help. In order of usefulness (to



me), they are the healing brush, the clone stamp and (occasionally) the lasso. The healing brush magically replaces damaged areas with restored image and is used like a paintbrush with a huge choice of stroke widths. It's ideal for scratch and spot removal but handles larger blemishes as well. The clone stamp, also with a choice of size, is placed on a good adjacent area, copies it and then ‘stamps’ this over the damage. The lasso allows you to define an area and then copy and paste it over the damage. I always used to use the latter two until I discovered the healing brush

that now usually takes my preference - try them all and you'll see why the healing brush is best on most occasions. Here's the rub, these three tools alone can be used in an almost infinite variety of degrees from sledgehammer to scalpel. The temptation (as with all Photoshop tools) is to use them heavily, when most of the time it's subtlety that produces the best results. The use of feathering in conjunction with all Photoshop's techniques is essential. This allows a graduated effect that is best described in terms of a black, white and grey. The



transition from black to white can be immediate like a zebra or it can be a gradual change through all the shades of grey. Feathering lets you choose how gradually (i.e. subtly) you wish apply the effect you want to achieve and is used mostly with the lasso tool. Don't forget that there are many other tools but personally I don't bother with them. There is no substitute for lots and lots of practice, experimentation, trial and error and (of course) making mistakes. That's really the only way to learn. There are few short cuts to expertise.

LIGHTENING, BRIGHTENING AND CONTRAST CONTROL

- Once you've got removal of the blemishes mastered, you'll come to perhaps the most difficult aspect of restoration, which is balancing the tones, highlights and shadows. You'll be trying to achieve an image that looks natural, but still retains detail to be seen in both highlight areas (steam, skies etc.) and shade and shadow. I would hope it's obvious that if those tones have been lost in the original source, they cannot be put back. Scans from original negatives or slides are usually much better than those from prints but good prints can still yield exceptional results.

The ‘sledgehammer’ choices offered by Photoshop to aid you are brightness and contrast, both of which I suggest you avoid. Far better for photo restoration are the curves tool and/or ‘levels’ and/or shadow/highlight all of which are to be found in the image-adjustments section. Am I going to tell you how to use them individually or in combination? No, I am not! As I've stressed before, it will only be practice, trial and error and inevitably making many mistakes that can teach you success. So far it's taken me over five years and I'm still learning!

Don't forget that you can choose any part or parts of the image to adjust by using the lasso tool feathered appropriately to suit what you want to achieve. In old-fashioned terms, all of these tools and techniques are the 21st century digital version of the ‘dodge and shade’ skills once used in darkroom printing - but with that capability vastly enhanced and improved. Photoshop also lets you improve what were once euphemistically referred to as ‘soft’ images (i.e. blurred or out of focus). The sharpen tool (used with the lasso) can be very effective. However, beware of the temptation to ‘over-cook the pudding’. You can increase or decrease the sharpening effect to your own taste, but

over-sharpening can easily ruin modest improvements to your image.

FINALLY - Many features and options within Photoshop are aimed at the printing and graphics industries and of little or no relevance to this article. Many users may wish to investigate and master the layers facility (combining different versions of images) but I've never bothered and it's never been a hindrance to getting wonderful results. Above all, have fun! Whether it takes minutes or hours to get a result that was better than when you started, it will have been worth the effort.

PLEASE HELP! - Individuals who wish to help with the upkeep of *Tornado* often donate or loan archive images from the steam era railway to the AISLT's Photo Archive. Once restored, they are incorporated into digital presentations given to clubs and societies. Voluntary contributions made at these meetings provide a modest but valued ongoing contribution. If you'd like to assist by donating or loaning good quality material to the Trust, it is always acknowledged and credited in the presentations accordingly. Please email to photos@a1steam.com – copies of licensed images are also available from the Trust. **TCC**

PROFILE – GRAHAM LANGER *by Andy Hardy*

Graham's involvement with the A1 Steam Locomotive Trust dates back to his first donation in 2002 and attendance at the 2004 Convention after which he got steadily more drawn into the machinery of Trust operations! Upon discovering that Graham was working with websites, in 2008 Mark Allatt 'persuaded' him to take on the day to day management of the Trust website, in line with an AISLT policy of fitting 'square pegs into square holes'.

You could say that steam is in Graham's genes; his great-grandfather, Carl Langer, a chemist who developed the fuel cell, was a railway enthusiast, as was his son, Carl, who served with Welsh Regiment in WWI before taking up farming, as was Graham's father, Charles, who was a talented model engineer and President of the Tonbridge Model Engineering Society. Growing up on a farm in East Sussex in the 1960s with a 3 1/2" gauge railway in the garden ensured that Graham had little chance of avoiding the steam bug and regular trips to fetch cattle feed from Hodson's Mill in Robertsbridge with his father allowed him to enjoy his first footplate rides on the SE&CR 'P' Class which had been acquired by the mill following the closure of the Kent & East Sussex Railway.



Graham Langer (with his older brother) on the running board of the 'P' Class at Hodson's Mill, Robertsbridge.

As soon as he was old enough (well, eleven actually) Graham started volunteering on the fledgling K&ESR at Rolvenden, initially helping in the Locomotive Department under the eyes of Colin Edwards and Jack Hoad, one of the original Colonel Stephens' drivers. He remembers helping to repaint one of the Terriers, *Sutton*, and being the

ideal size to be inserted into parts of a locomotive which adults couldn't reach, including the smokeboxes of the Terriers! Involvement in the preservation movement brought him into contact with David Dore and this resulted in his making trips to Peterborough to work on the de Glehn Compound 4-6-0 No. 3.628 when she was active on the Nene Valley Railway (leading to a life-long admiration for the work of French locomotive engineers). In his late teens Graham's railway modelling interests grew to encompass 16mm scale live steam in the garden and attending college in Tonbridge enabled him to enjoy travelling there on the Hastings line 'Thumpers', often in the cab if the driver was local.

A degree in Landscape Architecture was followed by a number of years working with horses, both in the UK and Ireland, then seven years in the wine trade before a complete change of course found Graham moving to Herefordshire to farm in the mid-90s. In 1999 he married Jackie, the daughter of a senior BR railwayman herself, holding their wedding reception on a train on the South Devon Railway; it was the arrival of their daughter in 2003 that led to a further change of career, Graham finding a role with a local online model railway retailer, a job out of which he was head-hunted by his current business partner, Ian Pearse of Accucraft (UK), makers of small scale live steam engines!

Living in Herefordshire might seem to be a bit counter-intuitive when the organisation you are helping is based in Darlington but Graham's role in the Trust mainly requires a good Internet connection (*that's a joke! - Ed*) and a 'phone line. Working from home his duties have expanded to include the P2 website, YouTube channels for both A1 and P2 as well as developing the Trust's two Facebook pages, a first point of contact for many people in these days of social media. In 2013 he took over the role of editing *The Communication Cord* quarterly and then the production of the Trust's two online monthly bulletins, *The Tornado Telegraph* and *The Mikado Messenger*; you could say that his current position is 'Editor in Chief'. To ensure he didn't spend his entire life in front of a PC, Graham also joined *Tornado's* support crew during her first few years on the mainline but pressures of work and the locomotive being based in



Graham (on the left) with Traction Inspector Bob Hart on the platform at Paddington after returning with a special from Shrewbury.

London have prevented him fulfilling this duty of late. One consolation is that his firm was able to produce a limited run of Gauge 1, live steam models of No. 60163, allowing to him present the Trust with £10,000 commission from sales, a perfect way to mix business and hobby!

Asked to consider his most memorable moments with the Trust, Graham cites helping to prepare *Tornado* for her first public steaming in 2008, commissioning the locomotive at the GCR, travelling on the final, high speed, test run to Newcastle, attending the naming ceremony, working with the wonderful Trust volunteers at Darlington and with the support crew and the privilege of working with DBS professionals on the footplate. Subsequently the construction of the P2 has also had some amazing highlights including cutting the frames at Scunthorpe and their erection at Darlington Locomotive Works.

A keen horseman, when he isn't working for the Trust Graham spends as much of his time, riding his 17.2hh thoroughbred, Mr. Postman, a racehorse he is (*still! - Ed*) retraining; in this connection his also heavily involved with the Light Cavalry Association, currently taking part in many World War I commemorations in the UK and Europe. Like many Trust volunteers, juggling all these interests can be quite a challenge.

TCC

Mark Holloway

FROM THE ARCHIVES *by Graham Langer*



Tornado's frames are displayed to Covenantors at the National Railway Museum in 1997.

● **Winter 1997** - Following completion of the main frames at Tyseley including the fitting of the inside cylinder and six hornblocks, *Tornado* (which could now be considered to exist since the frames were a complete unit) travelled to the National Railway Museum. It arrived at York on March 12th, courtesy of an EWS freight wagon, having become the first A1 to traverse the East Coast Main Line for over 30 years! Following exhibition at York, the locomotive's frames were returned to Tyseley for continuation of the work that the team there had been contracted to fulfil.

● **Winter 2002** - Progress continued to be made on the construction of No. 60163, with the slidebars being fitted and the bogie located under the frames. The process of trueing up the frames and eliminating the non-conformances continued. All parts for the Cartazzi axleboxes were being machined and the cab was being modified to meet Railtrack's new height standard of 13' 0" - otherwise our A1 would be banned from certain stretches of line, for

example, Gas Works Tunnel on the exit from King's Cross!

● **Winter 2007** - Work at DLW was concentrated on ensuring *Tornado's* frames were ready to receive the boiler when it was delivered from Meiningen, including fitting the ash pan and working on the boiler clothing. The time was also taken to trial fit the inside connecting rod and valve gear and calculate the final balancing required for the leading driving wheelset. Off-site work continued on the tender at Ian Howitt's Crofton works, the frames being turned over (having been assembled 'upside down' thus far) and tender tank base delivered from North View Engineering. William Cook Cast products produced the tender wheels and Timken had delivered the bearings.

● **Winter 2012** - *Tornado* had wrapped up a busy 2011 season with some epic runs, the most adventurous of which was 'The Caledonian Tornado', steam hauled from Crewe to Glasgow and back (tackling Shap and Beattock en route). Other duties saw No.



In 2002 the Cartazzi axleboxes were set up in the frames.

60163 visit the Mid Hants Railway and Barrow Hill Roundhouse (for the AISLT Convention) as well as working 'The Cathedrals Express' to numerous destinations; *Tornado* was also booked for two VSOE 'British Pullman' trains but missed one because of injector trouble - fortunately the Trust was able to arrange the substitution of No. 70000 *Britannia* to cover the turn. In other news, The Tornado Team was launched in February, a club for young supporters of No. 60163. TCC

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



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* All information correct at the time of going to press Late-February 2017. For up-to-date information and dates please check the website www.alsteam.com.

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

Access to the works is via Head of Steam: Darlington Railway Museum where covenantors are entitled to free entry. Charity registration No. 1022834.

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

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