

THE MIKADO MESSENGER



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

Welcome to edition No. 45 of *The Mikado Messenger*. The *Messenger* aims to provide a regular bulletin of news about the construction of No. 2007 *Prince of Wales*.

With perfect timing, No. 2007's driving wheels were delivered to Darlington Locomotive Works the week before *Tornado's* birthday party and guests attending that event were treated to the sight of *Prince of Wales* on its driving wheels for the first time. With the wheels under the locomotive attention is now focused on funding the larger motion parts through The Motion Club - you can find full details of how to help with this [here](#). Donations to the project have now passed £2.4m - almost half of the £5m needed to complete the locomotive in 2021 - and pledges towards building the locomotive have now topped £3m.



Breath-taking! *Prince of Wales* sits on her driving wheels for the first time - Mandy Grant

COUPLED WHEELS COMPLETED - In a final flurry of activity, South Devon Railway Engineering (SDRE) completed the driving wheelsets in July and they were delivered back to Darlington. We must again thank all those who signed up to The Mikado Club for funding this work. You can see a full set of photos [here](#).



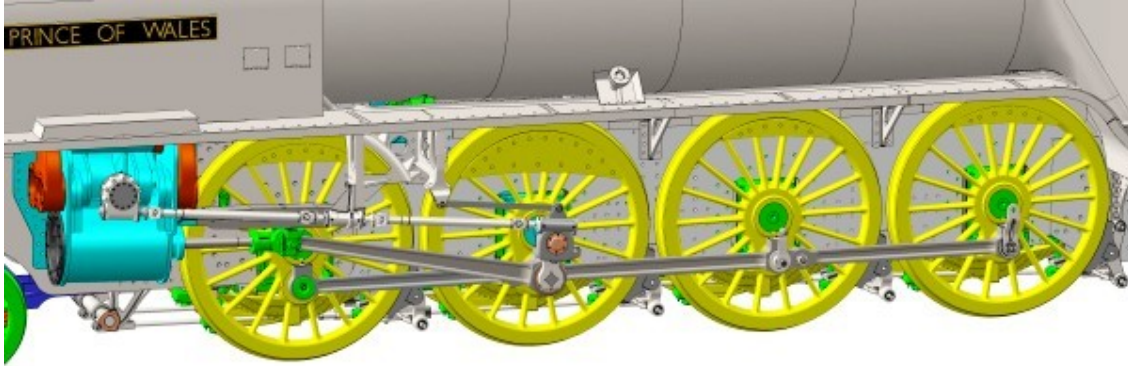
The SDRE team and their work (left to right): Tony Wilson (assembly), Martin Harvey (Tyre bores), Robin Coulton (crank pin hole machining), Rob le Chevalier (Engineering Manager), Gary Warrington (Wheel centre machining), Drew Neal (Profiles) - *David Elliott*

There are still a considerable number of wheeling-related Dedicated Donations still available for sponsorship, ranging from a driving wheel spoke at £600 (or from £25 per month for 24 months) to a Cartazzi axlebox casting at £1,300 (or from £50 per month for 26 months) to and driving wheel casting & proof machining at £12,000 (or from £200 per month for 60 months). If you would like to sponsor a component, please email dedicated.donations@p2steam.com or call 01325 460163 and we will be happy to help you find a suitable component.

DO THE LOCO-MOTION WITH US! - The Motion Club has reached over £80,000 and the order for the heavy motion has been placed. The Club, which was launched in April 2018, has welcomed over a third of its 175-member target, with over 65 people already signed up. The Motion Club aims to raise £210,000, through 175 supporters each donating £1,000 (plus Gift Aid) in up to eight payments of £125, to manufacture the motion for No. 2007 *Prince of Wales*. If you haven't already joined The Motion Club, we would urge you to get on board, if you have any questions, please feel free to [email us](#), or call us on 01325 460163.

In order to complete No. 2007 by 2021, we needed to order the heavy motion this year. Thanks to the generosity of our supporters and the quick uptake of The Motion Club, we were confident enough to order the motion. The £181,000 order has been placed with Stephenson Engineering Ltd of Atherton, Manchester for the heavy motion. The order includes the forging, machining and heat treatment of the nine heavy motion rods - intermediate coupling rod LH/RH, trailing coupling rod LH/RH, leading coupling rod LH/RH, outside connecting rod LH/RH and the inside connecting rod assembly (including strap, gluts and strap nuts and washers) - and the combined piston and rod.

The motion is expected to be delivered in batches between December 2018 and December 2019, with the first item, the intermediate coupling rods, expected to be delivered towards the end of December 2018. Orders to follow for the motion include rod bushes, oil box covers and miscellaneous components. You can find links to The Motion Club Leaflet and how to donate on The Motion Club [page](#).



The Lentz/Franklin valve gear drawn in CAD - *David Elliott*

VACANCY - ENGINEERING AND WORKSHOP MANAGER - In order to maintain the pace of progress on No. 2007 *Prince of Wales*, there is an exciting opportunity to join The A1 Steam Locomotive Trust (A1SLT) at its base in Darlington, in the role of Engineering and Workshop Manager. As the UK's premier organisation for the building of brand new full-size steam locomotives, the A1SLT is now seeking an experienced engineering manager to join its team in Darlington in the role of Engineering and Works Manager as construction activity on its second locomotive significantly increases.

This critical role will lead the team of staff, contractors and volunteers who are building a brand new main line locomotive, No. 2007 *Prince of Wales* through the Trust's subsidiary company, The P2 Steam Locomotive Company (P2SLC). The role will also provide engineering management support to the existing new build locomotive, No. 60163 *Tornado*, in operation on the main line and preserved railways. The successful individual will additionally take a lead in the delivery of the third locomotive constructed by the Trust. You can find full details [here](#).

PROGRESS TO DATE

- Frame plates for engine and tender rolled and profiled; engine's frames erected at Darlington Locomotive Works; all major engine frame stays, brackets, horn blocks, axle boxes and buffers cast (44 in total); over 1,000 fitted and driven bolts ordered and delivered, approximately 800 now fitted to the frames
- All 20 wheels for engine and tender cast and proof machined; roller bearings for all engine and tender wheelsets and engine axles (including crank axle), tyres and crank pins delivered, tender axles ordered, tyres delivered and first wheelsets complete. Wheels fitted to axles, tyres and crankpins fitted to wheels at South Devon Railway Engineering, wheels delivered to Darlington, locomotive lifted onto wheels.
- Preliminary discussions held with boiler manufacturers and forged foundation ring corners manufactured and machined; start made on boiler fittings with castings for combined injector steam and delivery valves
- Study into ride and suspension completed using rail industry standard Vampire® software; finite Element Analysis completed on re-designed crank axle to ensure locomotive complies with modern standards; assessment and notified body appointed to oversee certification - first site visit made
- Cab erected and cab side window frames fitted; engine footplating and splasher kits delivered and permanently fitted to frames
- Smokebox door pressed details made and door completed, door frame manufactured, smokebox delivered and erected; chimney cast and fitted
- Crosshead castings received
- Boiler cladding assembly jig built, cladding crinolines and hoops rolled and fitted to jig, cladding sheets procured, rolled and fitted to the jig, whole assembly lifted into place on the locomotive and painted with primer.
- The boiler tender has been issued and expressions of interest have already been received.
- Tender frame construction under way, axlebox and other tender castings ordered from William Cook Cast Products
- Nameplates and chime whistle delivered
- Over £1.9m spent, £2.4m raised and £3.1m pledged of the required £5m.

FUNDRAISING

£2.4m donated and £1.9m spent of £5m target - Our project to build Gresley class P2 No. 2007 *Prince of Wales* continues to make solid progress on all fronts and we are still on target to complete the new locomotive by 2021 provided we can keep up the current pace of income growth. A huge thank you to all our supporters who continue to give most generously to the project.

Pledges towards building No. 2007 *Prince of Wales* have passed £3m just four years after the frames were rolled at British Steel's plant in Scunthorpe. Public interest in seeing a new Gresley class P2 become a reality sooner rather than later remains high and over 860 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 in March 2014. The average monthly donation is now over £17 per Covenantor (including Gift Aid) and the projected monthly income for our P2 project from the monthly covenant scheme is now running at around 110% of that of *Tornado* - a remarkable achievement in such a short period of time and all thanks to the generosity of our supporters. What is even more striking is that only 28% of A1 Covenantors (36% of P2 Covenantors) are regular donors to both locomotives, meaning that the overwhelming majority of the funds are being given by new supporters of the Trust.

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.

AN AUDIENCE WITH THE *PRINCE OF WALES*

We will be holding a series of presentations on the project to build new Gresley class P2 No. 2007 *Prince of Wales*. Each presentation will feature key team members including Mark Allatt and David Elliott and will cover the background to the project, progress to-date, future plans and details of how to get involved. We would encourage you to attend one of these Roadshows and bring along some friends and family members who would be interested in hearing about the project. The two hour presentation will run from 11:00hrs to 13:00hrs on each of the days listed below and are open to existing supporters and interested members of the public:

ROADSHOW DATES FOR 2018:

- Saturday 1st September 2018 - Doubletree Hilton Hotel City Centre, Bristol
- Saturday 8th September 2018 - Derby Conference Centre, Derby
- Saturday 3rd November 2018 - Manchester Conference Centre, Manchester
- Saturday 8th December 2018 - Hilton Leeds City Hotel, Leeds.

For more information on the P2 Roadshows visit www.p2steam.com, email enquiries@p2steam.com or call 01325 460163.

PRESENTATIONS

If any railway society - or indeed other interested group - would like a presentation on the project they should contact us by email enquiries@p2steam.com

EASYFUNDRAISING

Now is the time of year when many people start thinking about booking a summer holiday. Why not help the Trust at the same time by doing your online searches through EasyFundRaising, painlessly

raising cash for The A1 Steam Locomotive Trust every time you spend online? You can find details of how to do this [here](#).

VOLUNTEER

As ever we are looking for more volunteers. It takes a lot of people to both keep *Tornado* on the main line and also to build *Prince of Wales*. There is always so much more that we can achieve with the right volunteers with the right skills and can-do attitude. Please email enquiries@p2steam.com if you think you can help or follow us on Facebook, Twitter, Instagram and LinkedIn.

TRAVEL WITH *TORNADO*

For more information on *Tornado's* tours and where you can see her, click [here](#).

The Trust respectfully requests that anyone wanting to see *Tornado* follows the rules of the railway and only goes where permitted.

OPEN DAYS AT DARLINGTON

We hold public open days at Darlington Locomotive Works on the first and third Saturday of every month. During April through to September we are open 10:00hrs to 16:00hrs, October through to March, we are open 11:00hrs - 15:30hrs.



Facebook Twitter Website Email

Copyright © 2018 The A1 Steam Locomotive Trust, All rights reserved.

Our mailing address is:

The A1 Steam Locomotive Trust, Darlington Locomotive Works, Hopetown Lane, Darlington. DL3 6RQ