

THE MIKADO MESSENGER



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

Welcome to edition No. 53 of *The Mikado Messenger*. The *Messenger* aims to provide a regular bulletin of news about the construction of No. 2007 *Prince of Wales*.

The workshop at Darlington Locomotive Works has been busy with a lot of machining activity. Following on from this, the Trust has decided to hire a machinist to assist in moving the construction of the engine forward. More information about this job role can be found in this issue of *The Mikado Messenger*.

The Motion Club is filling up with less than 50 places remaining in the club. If you haven't yet joined The Motion Club and would love to say you helped fund the heavy motion of No. 2007 *Prince of Wales*, please complete the [registration form](#) and [standing order form](#), call us on [01325 460163](tel:01325460163) to make a card payment over the phone or [email us](#) for more information.

NEWS BRIEFS

Frames - North View Engineering are making good progress with the motion bracket, this is expected to be delivered to Darlington Locomotive Works for fitting within the next few weeks.



Daniela inspecting the motion bracket welded fabrication prior to stress relieving - *Credit: Gemma Braithwaite / A1SLT*

Wheels - Our volunteers have started sanding down the outer tyre faces as, similar to the original P2 No. 2001 *Cock o' the North*, *Prince of Wales* will run with polished wheel tyres.

Cab - Daniela has designed a slightly modified version of the electrical cubicles which form the bases of the cab seats. These are closely based on the design used on No. 60163 *Tornado* but amended to suit the different cab profile and curved in rear edges of No. 2007 *Prince of Wales'* cab.

Major boiler fittings - The machining of the superheater header is complete at Multi-Tech Engineering of Ferrybridge although there is still a cone to be machined on the main steam pipe flange to correspond to lens joint on the end of the main steam pipe. Given the importance of having the header in a precise position in the smokebox to correspond to the antivacuum valve holes in the smokebox, we have postponed the machining of the cone until we have the boiler and smokebox united, as this gives us a means of adjustment.

A set of regulator castings have been received from H. Downs of Huddersfield. The images below show

the regulator valve body casting and the regulator valve and pilot valve castings (credit: *Daniela Filova/A1SLT*)

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Brake Rigging - The brake cross stays are nearing completion at North View Engineering and Steve Wood, one of our volunteers, has been working on the rear short brake links.

Tender - Ian Howitt is making good progress with the tender frames at his Crofton works. Castings are being machined and bolted to the frame plates and several other components have been manufactured.

Pipework - Design is moving forward rapidly. We have already manufactured the vacuum ejector pipe, brackets and elbow, these have been trial fitted to the cladding. The engine requires eight pipe flanges for the exhaust injector exhaust steam pipe which runs from the cylinder block back to the injector under the cab. Ian Matthews has machined these pipe flanges.



Ian Matthews checking the work on the flanges against the engineering drawing - Credit: Daniela Filova / A1SLT



Vacuum ejector exhaust pipe brackets and elbow - Credit: Daniela Filova / A1SLT

MACHINIST OPPORTUNITY

An opportunity has arisen for a machinist to join the team at Darlington Locomotive Works. If you are interested, or know anyone who would be interested in this role, please email a CV along with a covering letter to [Gemma Braithwaite](mailto:Gemma.Braithwaite@darlingtonlocomotive.co.uk).

You can find more information about this job role [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 engine wheelsets complete; materials for tender wheelsets including tyres, axles and wheel centres delivered
- Preliminary discussions held with boiler manufacturers and forged foundation ring corners manufactured and machined; boiler design study commissioned; start made on boiler fittings with castings for combined injector steam and delivery valves; regulator castings delivered; superheater header cast and machined
- 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 and spectacle 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 jig; jig trial fitted to the frames
- Tender frame construction under way, axlebox and other tender castings ordered from William Cook Cast Products
- Nameplates and chime whistle delivered
- Significant progress on design and manufacture of pipework
- Over £2m spent, £2.5m raised and £3.2m pledged of the required £5m.



Progress on No. 2007 *Prince of Wales* - Credit: Mandy Grant / A1SLT

FUNDRAISING

'P2 FOR THE PRICE OF A PINT OF BEER A WEEK' - We have now passed the 900 mark for monthly Covenantors for No. 2007 *Prince of Wales*. We aim to reach 1,000 regular donors by the summer. If you haven't yet signed up to our monthly donation scheme we would encourage you to get on board - you can find more information [here](#).

THE MOTION CLUB - The Motion Club has now welcomed over 125 members, with less than 50 members remaining of our 175 member target. You can find more information about The Motion Club [here](#) - help us to fund the manufacture of No. 2007's motion!

THE BOILER CLUB - The Boiler Club is now approaching the 180 member mark, leaving just over 120 spaces available. With a decision being made on the boiler manufacturer in quarter one of 2019, we would urge those who haven't yet contributed towards the purchase of No. 2007 *Prince of Wales*' boiler to join us. This is the single most expensive component on the locomotive, meaning it is vital to increase the donations towards the boiler so we can place the order with confidence. More information about The Boiler Club can be found [here](#).

DEDICATED DONATIONS - You can sponsor components on No. 2007 *Prince of Wales* from as little as £25.00 ranging up to £15,000! This scheme has already raised in excess of £315,000. If you would like to sponsor a component, please email dedicated.donations@p2steam.com, detailing the amount you would like to donate and/or if you had a specific part of the engine in mind, we will then send you some component recommendations to suit your donation.

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*

Following on from the success of our 2018 Roadshow programme, we will be continuing the Roadshows in 2019. 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/or

David Elliott and will cover the background to the project, progress to-date, future plans and details of how to get involved. We would encourage you to attend one of these Roadshows and bring along some friends and family members who would be interested in hearing about the project. The two hour presentation will start promptly at 11:00hrs and run until 13:00hrs on each of the days listed below and are open to existing supporters and interested members of the public:

NEW 2019 ROADSHOW PROGRAMME:

- Saturday 6th April 2019 - Principal Hotel, York
- **AMENDED DATE** Saturday 1st June 2019 - Dundee Heritage Trust, Dundee
- Saturday 8th June 2019 - Royal Station Hotel, Newcastle
- Saturday 6th July 2019 - Darlington Locomotive Works, Darlington
- Saturday 14th September 2019 - Hilton Hotel, Leeds
- Saturday 2nd November 2019 - Darlington Locomotive Works, Darlington
- Saturday 7th December 2019 - Pendulum Hotel (Manchester Conference Centre), Manchester.

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 groups - would like a presentation on the project they should contact us by emailing enquiries@p2steam.com

EASYFUNDRAISING

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. If you have a passion for raising money or engineering please do get in contact. For more information, please [email us](#).

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 from 11:00hrs to 16:00hrs. Come and see the progress of No. 2007 *Prince of Wales*.



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