

THE MIKADO MESSENGER



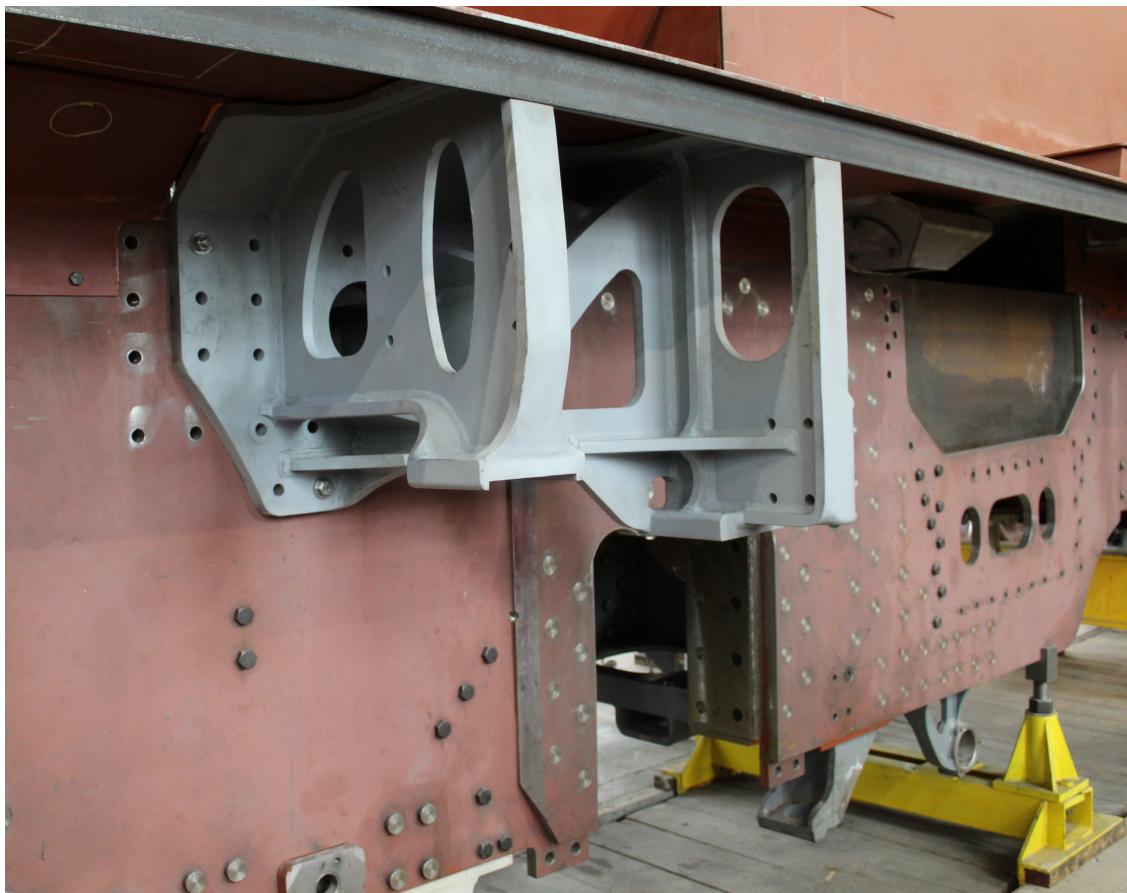
2007 PRINCE OF WALES

Building Britain's Most Powerful Steam Locomotive

Welcome to edition No. 55 of *The Mikado Messenger*. The *Messenger* aims to provide a regular bulletin of news about the construction of No. 2007 *Prince of Wales*.

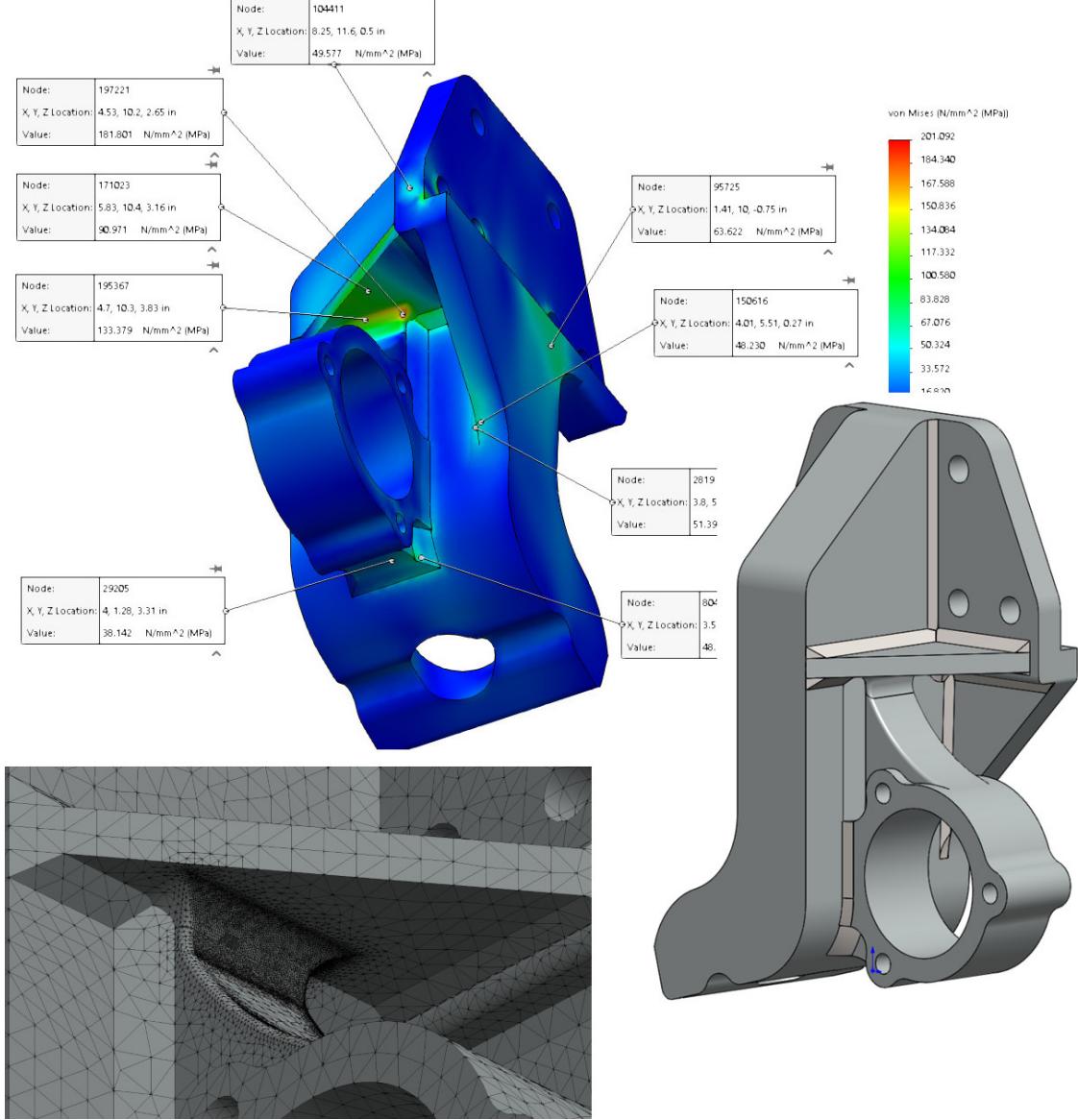
NEWS BRIEFS

Frames - The machining of the RH motion bracket has been completed by North View Engineering and has been trial fitted to the frames.



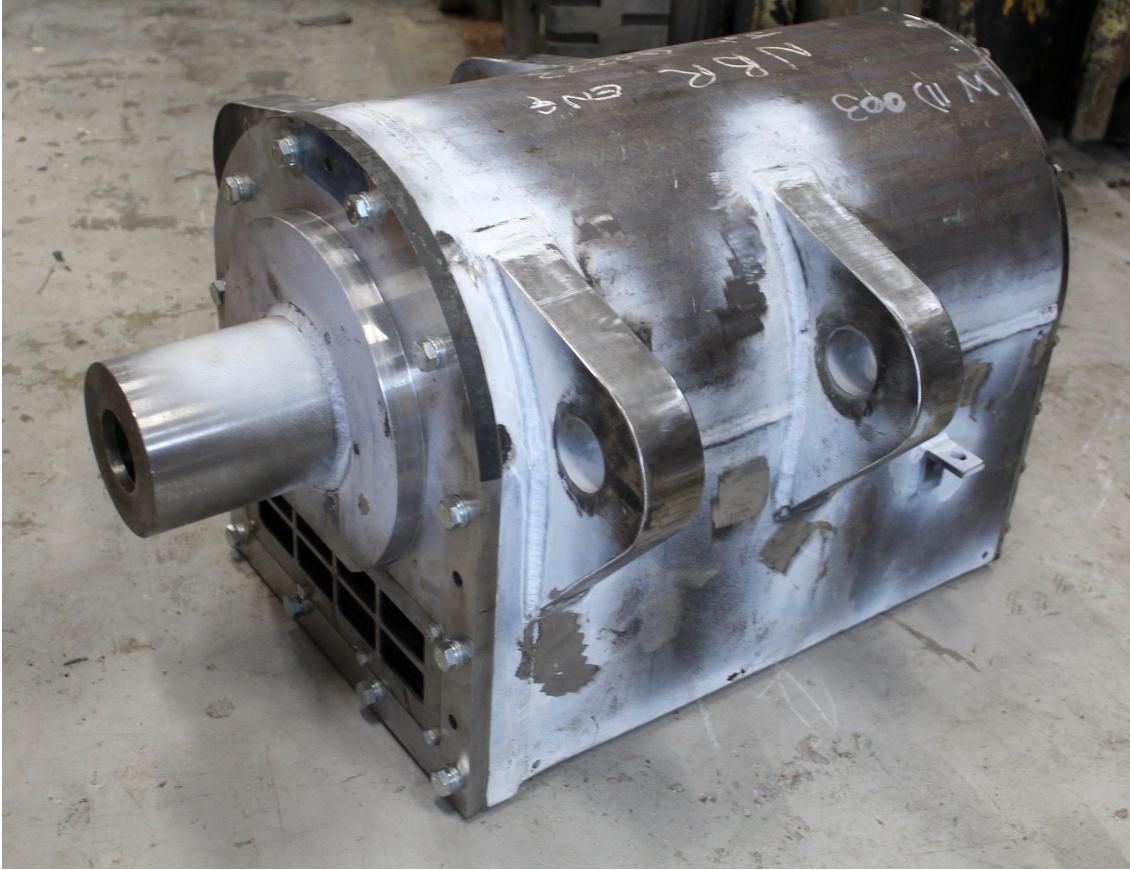
Trial fitting the RH Motion bracket - David Elliott / A1SLT

Frames - The remaining 10 spring hanger brackets have been ordered from North View Engineering Solutions. They have all been redesigned as welded fabrications and the two pairs which are joined together across the frames - on the P2 by bolting a heavy section angle irons between them, have been replaced by the significantly stronger one-piece design employed on the A1 class. Two of the Spring Hanger Brackets also carry bearings for the rear brake lever shaft. As we are redesigning the brake system to be operated by air instead of vacuum the loads on the lever shaft are slightly different, so to check that brackets are still strong enough (and they are!), Daniela has carried out Finite Element Analysis on them.



Spring hanger 3D CAD illustration - Daniela Filova / A1SLT

Electrical - the newly designed belt driven alternator casing has been fabricated by North Bay Railway Engineering, Darlington.



Belt driven alternator casing - *David Elliott / A1SLT*

Wheel sets - The speedo return crank (which also serves as a crank pin nut) has been delivered by North View Engineering. This will carry a modified and fully refurbished speedo generator which started life on a 08 diesel shunter.



Speedo return crank - *David Elliott / A1SLT*

Wheel sets - Our volunteers have been polishing the tyre faces as was done on the original P2 No. 2001 *Cock of the North*.



Terry Graham polishing a tyre - *David Elliott / A1SLT*

THE MOTION CLUB

Fundraising, through The Motion Club, to manufacture the heavy motion has passed three-quarters of its £210,000 target. The Motion Club was launched in April 2018 and 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 the giant new locomotive. Thanks to the generosity of the project's supporters and the quick uptake of The Motion Club, The A1 Steam Locomotive Trust was confident enough to place the £181,000 order with Stephenson Engineering Ltd of Atherton, Manchester for the heavy motion last year. Reaching over 135 members of The Motion Club coincides with forging of the heavy motion blooms commencing.

The heavy motion blooms awaiting forging - *Robert Stephenson*



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
- Tender Tank ordered
- 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* - 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 136 members, with only 39 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 shortly, 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](#).

THE TENDER CLUB - Our newly launched club, The Tender Club, is starting to fill up with 24 places already filled. In order to keep on schedule to complete No. 2007 by 2021 we need to have the tender frames and tender tank delivered to Darlington Locomotive Works in 2019. I.D. Howitt Limited is currently manufacturing the tender frames and is making good progress. Given the generosity of our supporters, we have confidently placed the order for the manufacture of the tender tank with North View Engineering Solutions. Our target for The Tender Club is 250 members, contributing £1500, so if you would love to contribute towards the tender more information about The Tender 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 around £345,000. 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:

- **AMENDED DATE** Saturday 1st June 2019 - Discovery Point, 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.

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. Our next Open Days are 1st and 15th June; 6th and 20th July. Come and see the progress of No. 2007 *Prince of Wales*

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](#).

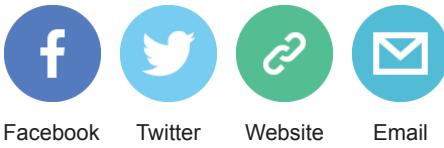
VOLUNTEER

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.



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