

THE MIKADO MESSENGER



2007 PRINCE OF WALES

Building Britain's Most Powerful Steam Locomotive



A GIANT RESURRECTED

No. 2007 PRINCE OF WALES IN DARLINGTON LOCOMOTIVE WORKS

WWW.P2STEAM.COM

The A1 Steam Locomotive Trust Darlington Locomotive Works Hoptown Lane Darlington DL3 8RQ

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Welcome to the 96th edition of *The Mikado Messenger*, bringing you the latest update from No. 2007 *Prince of Wales*.

This issue of *The Mikado Messenger* seeks to give an overview of progress to date, both engineering and fundraising. To our incredible 1,155 Covenantors, we thank you all for your continued support. To our 23 new P2 Covenantors to sign up in 2023, welcome!

When we commissioned the above image, little did we know that No. 2007 *Prince of Wales* would have its final fixtures and fittings attached in a completely new building. In the coming months we will be leaving the old carriage shed behind to take up residence in the newly built Darlington Locomotive Works. It will be here that the P2 will steam for the first time. We still have a way to go before that day, however we have many large components due for delivery in the coming months which will take us closer to the finish line. Factoring in the move, some major components will be delivered directly to the new Works to save on movement charges.

The cost of living crisis is impacting charities across the country and the Trust is not immune to the effects of so many people feeling the pinch, so we thank you all the more for your support. However, to see *Prince of Wales* steam in the next few years, if you haven't already, we ask you to consider joining one of the P2 Clubs and help us reach the targets.

THE MONOBLOC



As you are likely aware, the cylinder block was delivered to Darlington Locomotive Works for the 2022 convention in a largely complete condition and has since been returned to Howco where machining and other work has been progressing.

On its return, Howco's first attempt to fit a cylinder liner failed due partly to a rather tight initial interference before the liner was cryogenically cooled, coupled with the crane being used to lower the frozen liner into the block being slow. This led to the liner warming during the process, thus it "picked up" when it was a little over halfway in. Fortunately, Howco were able to remove it without damage using large hydraulic

jacks. The interference has been reduced to that used for *Tornado's* liners and the means of lowering into the block improved. All three liners are now in satisfactorily. The 6 inner valve seats have also been successfully shrunk into the block.

Final machining of the liners and block is almost concluded (see above image). The remaining process before delivery is to hydraulically test the fabrication.

We look forward to welcoming all members of The Monobloc Club to see the final product at the new Works before it takes its place between the frames. Keep your eyes peeled for the invite! In preparation for the fitting, our apprentice, Ed Laxton, has made adapters for the BR type cylinder relief valves which have been adopted for the P2 as being less liable to damage when being removed from the cylinders compared with the screw in LNER type. He is also well on with machining the body and end castings for these relief valves.

You can follow the link below to read more about the monobloc design and manufacturing process.

The Monobloc Club currently has 53 members, to whom we are grateful for their support. Despite the impressive design and unique fabrication, donations for the Monobloc remain below the target. This means that covenanted income gets re-directed away from the broader project. If you would like to make a contribution, please consider signing up through the link below. Monobloc Club membership is £1000. As with all our Clubs, you can pay as one lump sum, or in instalments, and your donation is hypothecated against that component.

Join The Monobloc Club

THE BOILER



With the A1 boiler now back in the UK, the team at DB Meiningen can turn their full attention once more to that of the P2. The boiler is nearing completion and is the second of the larger components for Prince of Wales being delivered this year. The

beating heart of any locomotive, the P2's boiler, once in place will make No.2007 look all but complete!

As we learned from *Tornado* however, there is a whole lot of plumbing, wiring and other such linkages before it is ready to go!

The Boiler Club is just two donations away from raising £500,000 - could your support see us over the half a million pound mark? Sign up to make a donation of £2,000 in one payments or from £125 a month. You can also follow the link for more information on the boiler design and manufacturing process.

[Join The Boiler Club](#)

THE TENDER



The third of the big items for delivery this year is the tender frames. Continued progress has been made on the tender frames at I D Howitt of Crofton, Wakefield, with the axleboxes machining completed and further work on brake and hand brake components. The tender tank is already at in Darlington and is poised to be attached to the frame after its arrival. The wheels, also at DLW in readiness, will require balancing.

Over £170,000 has been raised for the tender - a big thank you to the 116 supporters who have contributed. If you can help us to top up the tender, sign up below to donate £1,500 in one payment or donate £100 per month. You can also follow this link for more information on the tender.

THE INJECTORS



Using a series of converging and diverging cones, an injector is used to deliver cold water into the boiler against its own pressure, using its boiler steam with no moving parts.

No. 2007 *Prince of Wales* will require both a live and exhaust steam injector. We have one, and will be manufacturing the other soon.

In 2017, the Trust was very fortunate to be able to acquire a brand new Davies and Metcalfe Monitor live steam injector - part of a batch of ten manufactured for a consortium of Bulleid 'Pacific' owners - from Merchant Navy class No. 35006 *Peninsular & Oriental S. N. Co.* based at the Gloucestershire Warwickshire Railway.

The Trust is manufacturing a new Davies and Metcalfe class K exhaust steam injector using patterns borrowed from No. 71000 *Duke of Gloucester* and also measuring an example borrowed from No. 70000 *Britannia*. We now have a full CAD model ready for manufacture.

Over 60% of the target has been raised to cover the cost of the P2 injectors. We ideally need an additional 20 people to back this campaign. Sign up for £1000, or £250 a month for four months.

HOW TO CONTRIBUTE



How to Support No. 2007 *Prince of Wales*

The P2 couldn't have come this far without your help, and we are hugely grateful to all of our supporters. If you are wondering what other ways you can make a difference to this project, here are the many ways to get involved.

- [Sign up as a Covenantor](#) - just £10 per month makes a big difference.
- [Join The Boiler Club](#) - help us fund the beating heart of the engine.
- [Join The Tender Club](#) - get behind *Prince of Wales*.
- [Join The Injectors Club](#) - help inject some cash!
- [Join The Monobloc Club](#) - contribute to this complex component.
- [The Support Coach Appeal](#) - support the home of the support crew.
- [Dedicated Donations](#) - buy a gift for No. 2007!
- [Volunteer](#) - to help with engineering or sales, get in touch!
- [Legacy](#) - a legacy in your will can help secure the future of main line steam.
- [One-off Donation](#) - every little helps, and a lot goes a long way!

