

THE MIKADO MESSENGER



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

Welcome to edition No. 42 of *The Mikado Messenger*. The *Messenger* aims to provide a regular bulletin of news about the construction of No. 2007 *Prince of Wales*.

Hot on the heels of the closure of The Cylinder Club comes news that we are within a hair's breadth of completing The Mikado Club, the scheme to finance the wheeling of *Prince of Wales*, with only a handful of members still needed! In addition the locomotive is now 40% funded after just four years! Donations to the project have now passed £2m - over 40% of the £5m needed to complete the locomotive in 2021 - with pledges towards building the locomotive also rapidly approaching £3m. The frames were rolled at British Steel's Scunthorpe works exactly four years ago on St George's Day 2014 in the presence of designer Sir Nigel Gresley's two grandsons Ben and (the late) Tim Godfrey. You can read more [here](#).



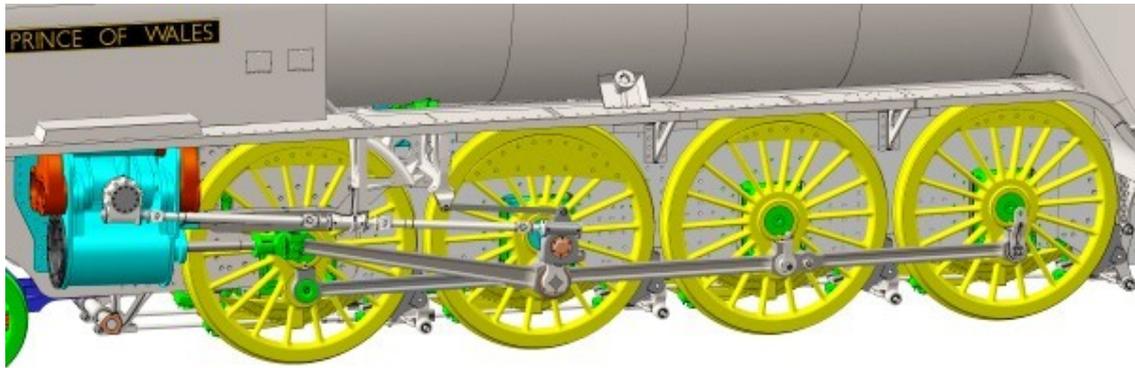
Ben and Tim Godfrey start the machine cutting No. 2007's frames - Andrew Hardy

FUNDRAISING UPDATE

ONLY FIVE MORE PLACES REMAINING! - There are only five places remaining in The Mikado Club, having already recruited 195 members, each donating £1,000. The Mikado Club will fund the wheeling of the engine and tender. If you would like to be one of the final five, please email enquiries@p2steam.com or call 01325 460163. You can find more information [here](#).

DO THE LOCO-MOTION WITH US - We are pleased to announce a new £210,000 appeal to manufacture the motion for new Gresley class P2 No. 2007 *Prince of Wales*. The A1 Steam Locomotive Trust has set itself the challenge of raising £210,000 through The Motion Club from 175 supporters each donating £1,000 (plus Gift Aid) to the project in up to eight payments of £125 by standing order. If the project is

to remain on schedule to complete No. 2007 by 2021, the Trust needs to order the motion in 2018. Following the success of The Founders Club (to get the project to the point of cutting the frames), The Boiler Club (to fund the construction of the boiler) and The Mikado Club (to wheel the locomotive), The Cylinder Club (to make the cylinder block), the Trust has decided to establish The Motion Club to raise an estimated £210,000 required to manufacture No. 2007's motion. 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*



The inside connecting rod drawn in CAD - *David Elliott*

THE BOILER CLUB PASSES THE HALF-WAY MARK - We can now announce that over half of the required 300 members have joined The Boiler Club fundraising campaign. Launched in October 2014 to raise the £600,000 needed pay for the manufacture of the boiler, The Boiler Club now has over 150 members who have each donated or pledged £2,000 (plus Gift Aid) meaning that £380,000 (including Gift Aid) has been pledged so far for the boiler. The 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). You can read further news on this story [here](#).

MONTHLY COVENANTORS - Our monthly Covenantors continue to increase, with over 840 supporters donating from £10.00 per month. We would encourage anyone who is not yet a monthly Covenantor to join us to help us hit our completion date of 2021. For more information about becoming a Covenantor please click [here](#).

ENGINEERING UPDATE

Orders have now been placed for brake pull rods and brake cross stays. Ian Matthews and the volunteers have been making brake pins and brake equalising levers at Darlington Locomotive Works.

The axle mounted pulley for the tender alternator has been completed by North View Engineering Solutions, Darlington. Ian Howitt is making good progress with the tender frames and has made a number of detailed parts for them. The front dragbox for the tender has also been completed.



The tender alternator pulley being machined at North View Engineering - David Elliott

The assembly of the wheelsets is underway at South Devon Railway Engineering.

With the recent increase in design capacity at Darlington Locomotive Works, following the appointment of Daniela Filová, the output of manufacturing drawings has accelerated. This includes the redesign of the motion brackets from castings to welded fabrications and completion of the new drawings for the coupling and connecting rods, which has enabled us to seek firm quotations. With the successful launch of The Motion Club, we anticipate placing an order shortly for all the heavy motion forgings.

A further new addition to the engineering team is Alan Parkin who, in collaboration with our Electrical Director Rob Morland, will be working on detailed electrical design for No. 2007 *Prince of Wales*. His first tasks have been to produce detailed drawings of the steam turbine alternator. This will enable us to manufacture new parts to refurbish old turbines and if necessary to make complete new ones. Alan has also been designing a replacement for the carriage type axle driven alternators that we are presently using on *Tornado* and her support coach. These 1960s designs are becoming increasingly rare and expensive to overhaul. The new design is intended to use a heavy duty 28 volt bus/truck alternator which is readily available and is likely to remain so for many years to come.

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 order, tyres delivered and first wheelset complete. All components for assembling engine wheelsets now at South Devon Railway Engineering
- 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 being fitting to the jig
- Tender frame construction under way, axlebox and other tender castings ordered from William Cook Cast Products
- Nameplates and chime whistle delivered.

DARLINGTON LOCOMOTIVE WORKS



Our 'Behind the scenes North East Chamber of Commerce event'. A breakfast event for local businesses, to raise awareness of the P2 project, was held at the Works on Wednesday 18th April. The works has been given over for this to allow members to view progress on *Prince of Wales*. Photo by *Gemma Braithwaite*

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 Trust personnel 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 19th May 2018 - Sheffield Hallam University, Sheffield
- Saturday 9th June 2018 - Glasgow Royal Concert Hall, Glasgow
- 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](tel:01325460163).



On Saturday 7th April there was a good turnout at Darlington Locomotive Works - *Mandy Grant*

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.

For more information on the project to build Gresley class P2 No. 2007 *Prince of Wales* please visit www.p2steam.com, email enquiries@p2steam.com or follow us on Facebook, Twitter 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.



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