

THE MIKADO MESSENGER

No. 6 August 2014



2007 PRINCE OF WALES

Building Britain's Most Powerful Steam Locomotive

Welcome



...to edition No. 6 of *The Mikado Messenger*. The Messenger aims to provide a monthly bulletin of news about the construction of No. 2007 *Prince of Wales*.

We continue to be delighted with the level support that the project to build new Gresley class P2 No. 2007 Prince of Wales has received since its launch last September. Having set an initial target of raising £100,000 seed funding through The Founders Club by the time the frames were laid, around 360 people are now on-board after just 11 months. Due to the Trust's charitable status this could be worth around £450,000 to the project. The Founders Club closed for new applications at the end of July following the dedication of the frames.

The Regular Donation – the covenant scheme – was launched in March at the first of the P2 roadshows. Picking up on the same theme which worked so successfully for *Tornado*, the new P2 will be substantially funded by a lot of people giving a little on a regular basis... a P2 for the price of a pint of beer a week. The price of a pint in the North East is now £3.10 (up from £1.25 in 1990 when the project to build *Tornado* was launched) and so we are asking supporters to kindly donate a minimum of £10pm by standing order. Gift Aid by UK taxpayers makes every £10 worth £12.50 and we have set ourselves the target of signing up 2,000 £10 equivalents in order to raise £2m towards the estimated £5m cost of No. 2007. We have already signed up 530 covenantors – many paying in excess of £10pm – and continue to receive a continual flow of requests for information. With Gift Aid this could be worth over £890,000 to the project over its seven year construction phase.



One of the fabricated frame stays in place between the frames.

You can see full details [here!](#)

Having launched the covenant scheme we need to ensure we keep the momentum going and would be delighted to be able to welcome you aboard. In addition to the link to the leaflet above a [Standing Order form](#) which can be completed and sent to us at Darlington. If you are a tax payer in the UK, you should also complete and return to us the [Gift Aid form](#) which applies to the regular donation made by standing order. Due to new HMRC regulations we have to request a Gift Aid form specifically for covenants. It should also be noted that for clarity we have a specific P2 construction fund account which covenants will be paid into. It only remains for us to thank you in advance for your support.

Dedicated Donations - The Dedicated Donation scheme was another successful fundraising tool used during the construction of *Tornado*. The scheme for No. 2007 was launched in July and will initially only be available to members of The Founders Club and Covenantors. In

addition to being able to sponsor one or more of the 18 spokes of the 6ft 2in driving wheels for either £600 (or £25pm for 24 months) supporters have the option to sponsor a range of different components from 'a group of six 1in BSW driven bolts and nuts for the intermediate left-hand footplate bracket' for £150 to a '6ft 2in driving wheel casting and proof machining' at £12,000 (or £200pm for 60 months) – a couple of which have already been sponsored - there is a component available for every size of wallet. Supporters who subscribe to the scheme will have their names inscribed on the official roll of honour at Darlington Locomotive Works listing the components sponsored, receive a certificate recording the sponsorship and copy of the drawing of the component. Since the scheme was launched it has raised in excess of £60,000. New components available for sponsorship will become available as construction progresses. – contact dedicated.donations@p2steam.com for more information.

graham.langer@p2steam.com
Editor of *The Mikado Messenger*

Graham Langer

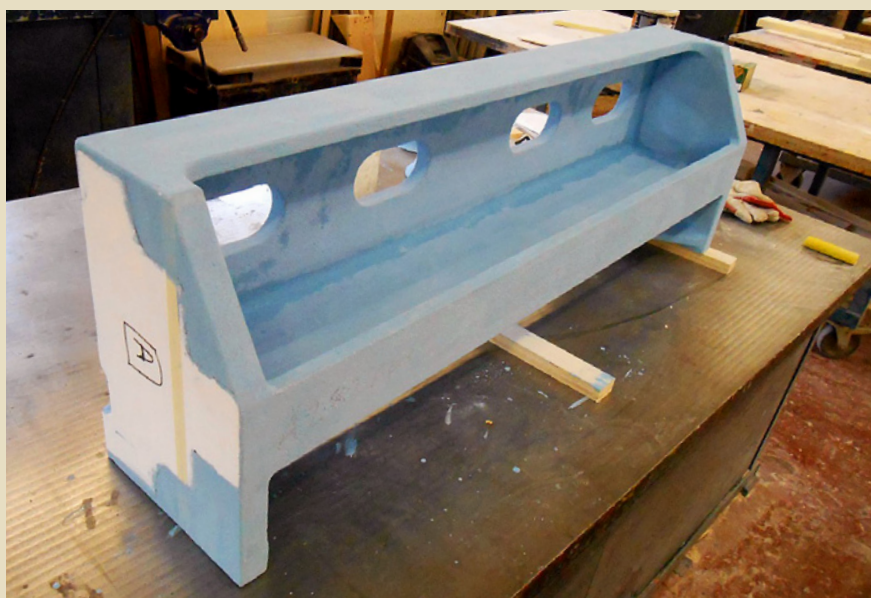
NEWS BRIEFS

● **FRAMES** - Following the excitement of setting up the frames, work has been slower whilst frame stays and hornblocks are made and delivered to Darlington Locomotive Works. The design effort is being directed at modifying the original major frame stays which carried vacuum brake equipment to suit air brakes, and to adapt them as welded fabrications instead of castings.

● **FRAME STAYS** - The two combined firebox support and brake hanger brackets have been cast at William Cook Cast Products.

● **WHEELS, CYLINDERS & MOTION** - The roller bearings for all the locomotive axles have been ordered from Timken Rail Systems and William Cook Cast Products continue with casting wheels.

● **BOILER & SMOKEBOX** - During a recent visit to Meiningen in connection with the intermediate overhaul of *Tornado's* boiler, further work was done to examine improvements and minor modifications which will be applied to the boiler for *Prince of Wales*. More detailed 3D design work has been done on the smokebox to modify it to suit the shorter *Tornado* boiler.



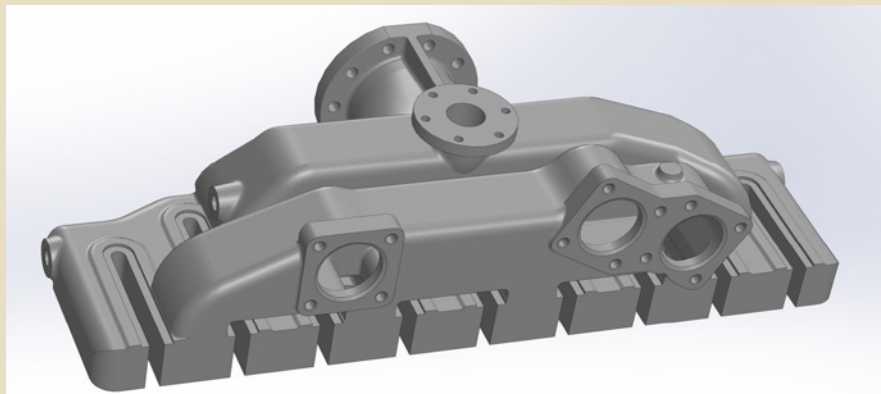
Frame stay and firebox support pattern prior to casting.

The original Gresley class P2 locomotives were fitted with Robinson type superheaters where the elements are fitted to the header using a special tube expander through cover plates on the front of the header. The elements are difficult to change individually. The post war locomotives were fitted the Melesco type superheater header where the elements are clamped onto the header using tee bolts and clamp bars

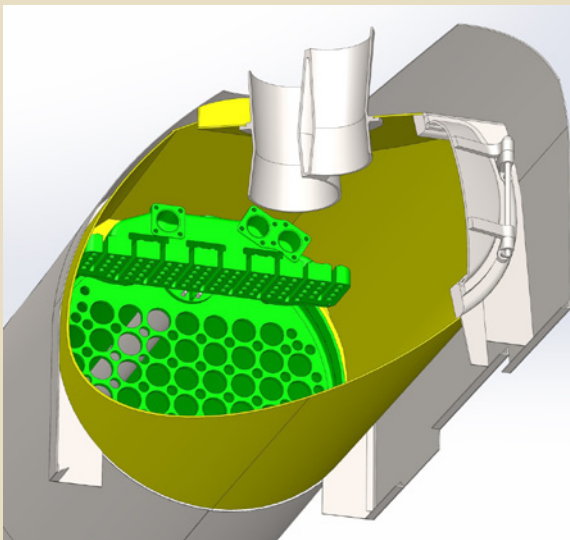
which eliminates the access covers on the header. The Melesco design is also superior in that the wet (inlet) and dry (outlet) manifolds are almost completely separate with air spaces between them. This reduces to the tendency of the heat in the outlet manifold conducting through to the inlet side. A 3D model has been drawn of the Melesco header fitted to *Tornado* to check that it will fit in the P2 smokebox - and it does! This is useful as we can use *Tornado's* pattern equipment although a small modification will be needed to provide for two anti-vacuum valves which are on the upper sides of the smokebox on *Cock o' the North*. The un-streamlined LNER Pacifics and Gresley V2 class have distinctive raised covers on the smokebox over the outer ends of the superheater header. Thanks to the egg shaped cross section of the smokebox and boiler cladding on the original P2s, there is no need for the raised covers.

● **RESEARCH** - As part of the design process we are researching the history of the original P2s and No. No. 2001 *Cock O'the North* in particular. We have already discovered a significant amount of unpublished material but are sure that there is a lot more out there. If you have any documents relating to or photographs of P2s we would be delighted to hear from you - even more so if you have first-hand experience of the P2s before they were rebuilt in 1943/44.

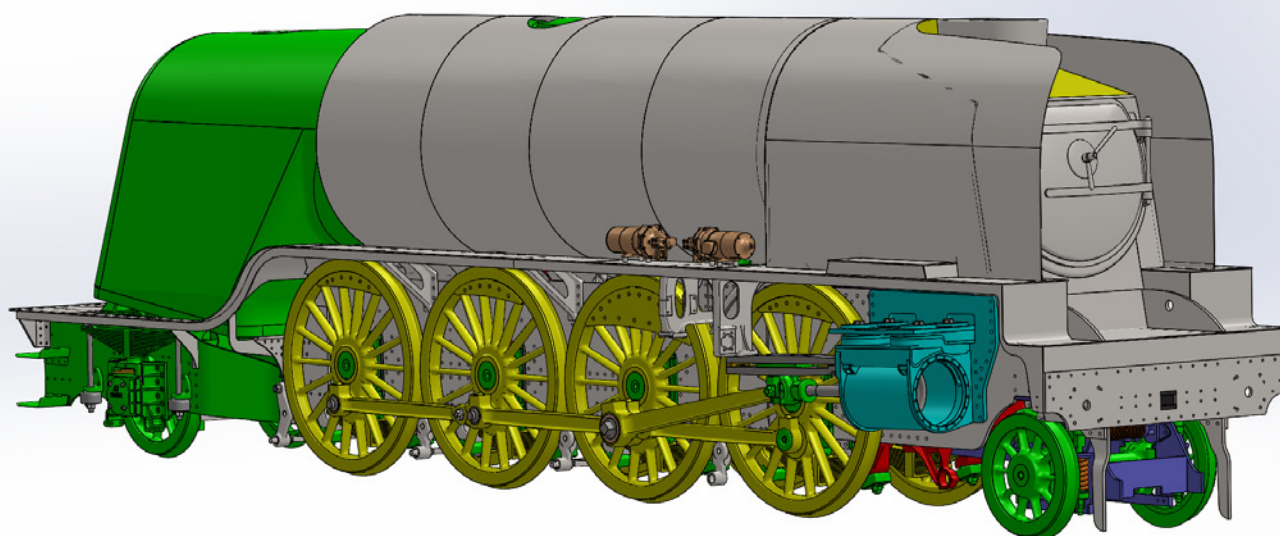
For more information on the project to build Gresley class P2 No. 2007 *Prince of Wales* please visit www.p2steam.com, email enquiries@p2steam.com or follow us on Facebook, Twitter and LinkedIn.



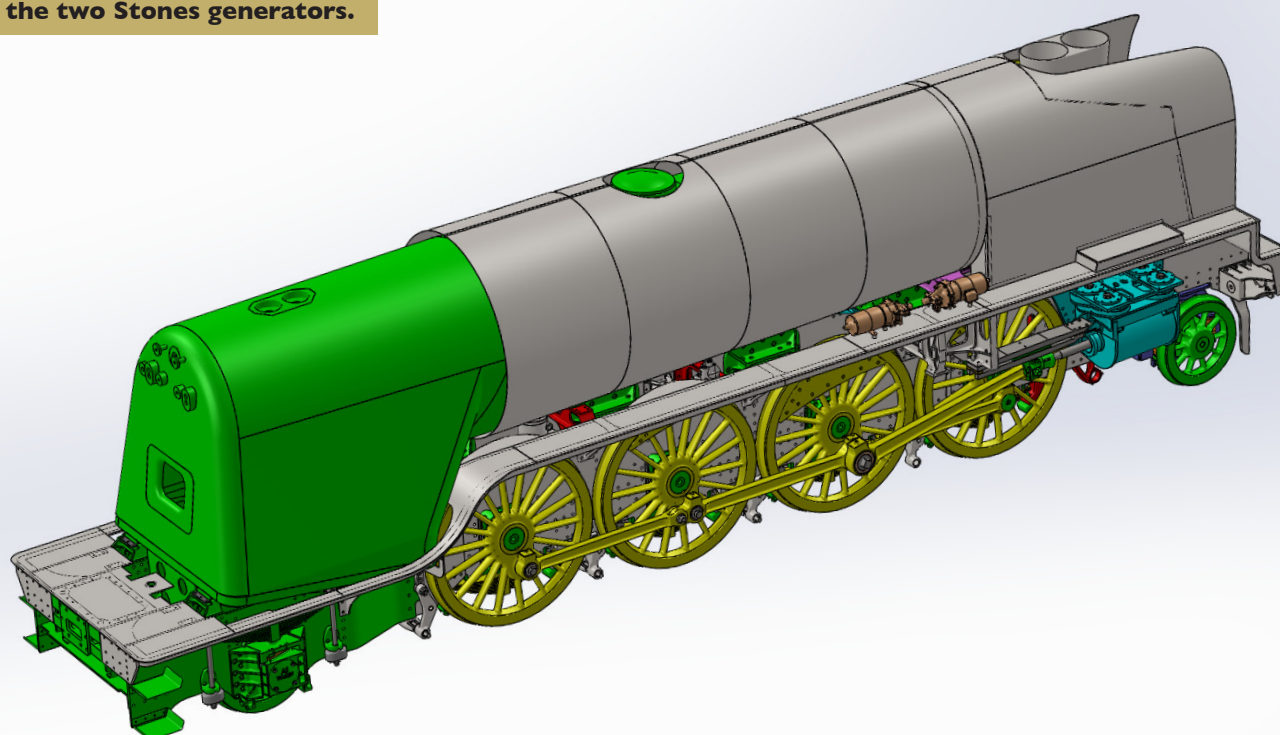
Above: Melesco superheater header as fitted to *Tornado*.



Left: Part section of the smokebox showing the AI superheater header from underneath.



Above and below: The latest CAD renderings showing boiler cladding added and the position of the two Stones generators.



● **WORKS MANAGER** - we are seeking an experienced steam locomotive engineer to join our team in Darlington in the role of Works Manager. This critical role will lead the team of staff and contractors to actually Gresley class P2 No. 2007 *Prince of Wales*. The successful applicant will be familiar with steam locomotive overhaul and maintenance, have project management experience and be used to leading teams. If interested please send letter of application and CV to enquiries@p2steam.com.

● **PRESENTATIONS** - If any railway society – or indeed other interested group - would like a presentation on the project they should contact us at enquiries@p2steam.com.
 ● **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 enquiries@p2steam.com if you think you can help.

Published by The P2 Steam Locomotive Company, Darlington Locomotive Works, Hopetown Lane, DARLINGTON, DL3 6RQ

Website: www.p2steam.com
 email: enquiries@p2steam.com

Edited by:
graham.langer@p2steam.com

Designed by Debbie Nolan

Picture Editor:
tony.watson@p2steam.com