

THE MIKADO MESSENGER

No. 3 May 2014

SPECIAL EDITION



2007 PRINCE OF WALES

Building Britain's Most Powerful Steam Locomotive

Welcome



... to Special Edition No. 3 of *The Mikado Messenger*. The *Messenger* aims to provide an ad-hoc bulletin of news about the construction of

No. 2007, Britain's most powerful passenger locomotive, until it is published monthly. We continue to be delighted with the level of support that the project to build new Gresley class P2 No. 2007 *Prince of Wales* has received since the launch of The Founders Club in September 2013. Having set an initial target of raising £100,000 seed funding by the time the frames were laid, over 300 people are now on-board after just seven months. Due to the Trust's charitable status this could be worth around £375,000 to the project.

The regular donation – or covenant scheme – was launched on Saturday 8th 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. As I write after the successful London, York, Darlington and Edinburgh roadshows, we have already signed up around 300 Covenantors and received dozens more requests for information. With Gift Aid this could be worth over £300,000 to the project over its seven construction phase.

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



No. 2007 Prince of Wales

NEWS BRIEFS

● **FRAMES** - the order covering manufacture of the main frame and tender plates, plasma cutting, grit blasting and priming has been processed by TATA and these were rolled at their Scunthorpe works 23rd April and are due to be profiled on 21st May. Boro' Foundry at Stourbridge has been contracted to machine the edges and drill holes in the frame plates; they have

experience with this sort of work having machined the frames for the Patriot project.

An order has been placed with Bakers Patterns Limited of Telford for almost all of the existing design frame stays and Cartazzi horn block polystyrene patterns, the castings from which will be needed soon after the frames arrive at Darlington Locomotive Works. Volunteers at DLW have continued cleaning existing AI wooden patterns required for No.

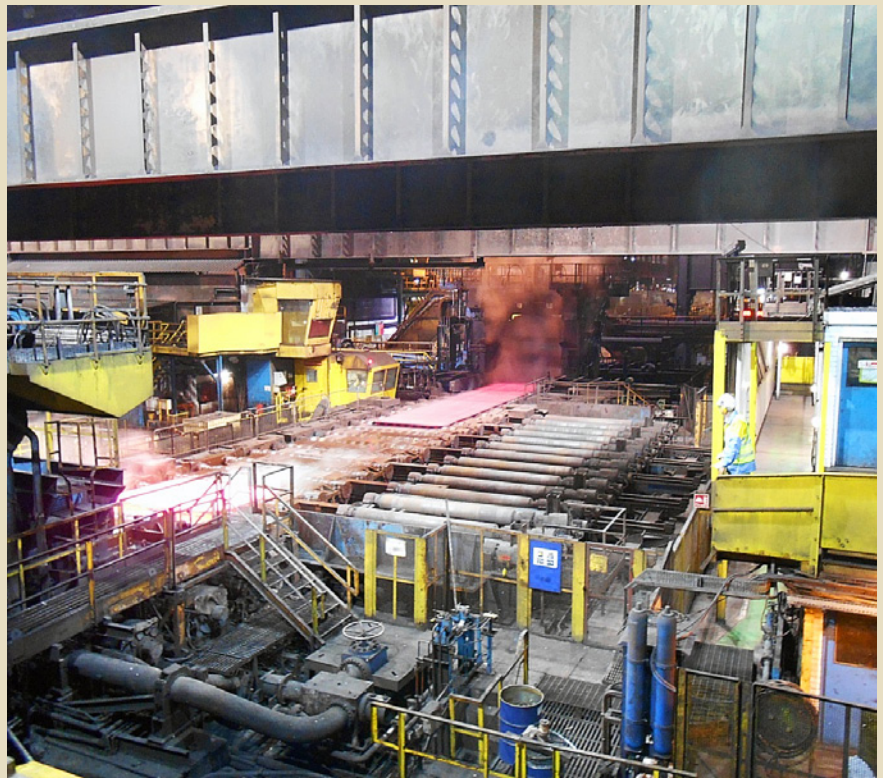
P2SLC

2007's frames and wheelsets. William Cook Cast Products Ltd (WCCP) has been asked to quote for all 25 of the locomotive frame stretcher and hornblock castings – 16 of which are from polystyrene patterns. Erection of the frames is due to start in DLW in July. The 3D CAD work has focused on creating a 3D model of *Tornado's* diagram 118a boiler to check that mounting points on the frames are correct. Footplate brackets and running plate angles have also been added to the model in order to position the holes in the frames as this is required to confirm the drilling pattern for frames.

● **WHEELS, CYLINDERS &**

MOTION - WCCP has started work on the pattern for the 6ft 2in coupled wheels which will require six wheels from one design and two from the second. Work is in hand using Finite Element Analysis (FEA) to compare the original wheel/axle interface design with a modified design using modern principles. We are still in the final stages of the examination of both the Lentz and British Caprotti options for No. 2007's valve gear. The investigation of the original Lentz gear and its development by The Franklin Railway Supply Company (a subsidiary of Lima Locomotive Works) of the USA continues and a number of promising leads are being followed up.

● **ROADSHOWS:** the roadshows have proved a remarkable success,



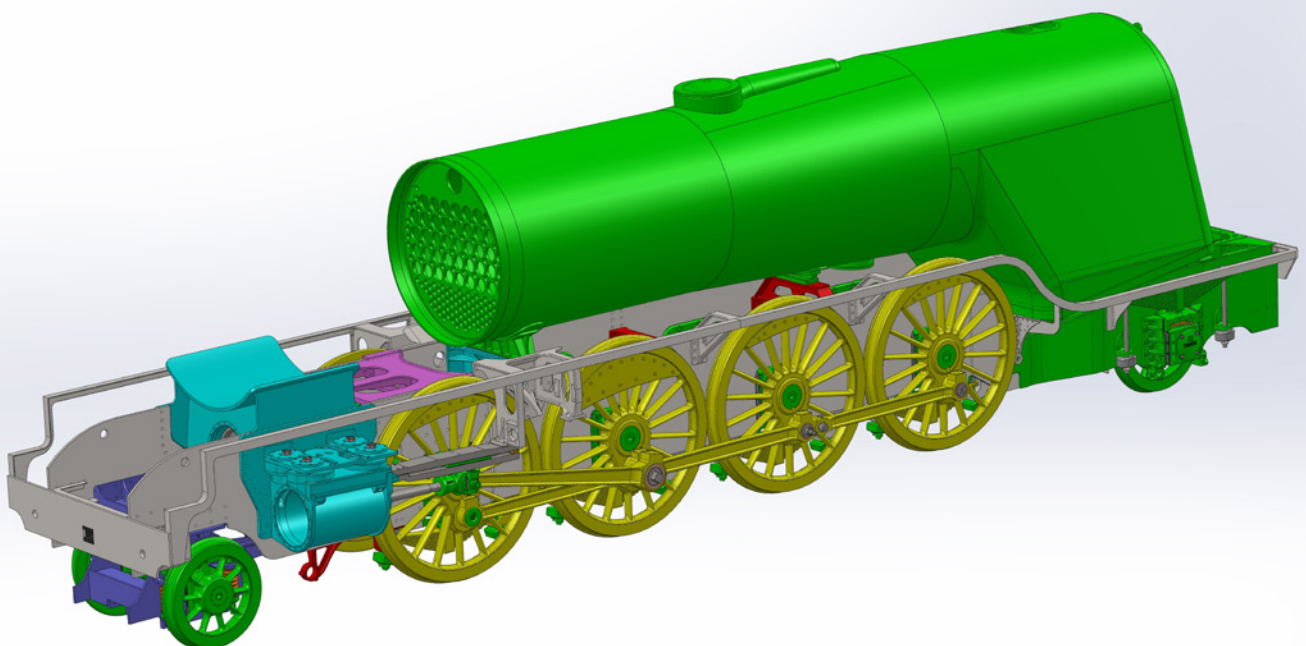
No. 2007 is born! The frame plates are rolled by TATA, Scunthorpe

each one adding to the number of Founders and Covenantors joining the project. Although the initial series is now complete we will continue to travel round the country giving talks.

● **EVENTS** - Darlington Locomotive Works will be open to the general public to view No. 2007's frames for the first time from 11:00hrs to 15:00hrs on

Sunday 20th July, with special events for Founders and Covenantors beforehand - details to follow.

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.



The latest CAD rendering showing the Diagram 118a boiler in place with footplate and splashers underway

COVENANTOR SCHEME

We are very pleased to say that the covenant scheme – a P2 for the price of a pint - is now open for everyone to support and that in the last few weeks some 300 people have already decided to get on board – you can see full details [here!](#)

To ensure we keep the momentum going we have now launched the covenant scheme 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.

● HELP THE P2 – THE FOUNDERS CLUB

The Founders Club already consists of over 300 members, whose objective is to raise the funds for the acquisition and cutting of the frames for the Gresley P2 class No. 2007.

Members of The Founders Club each donate £1,000 (in up to four payments of £250 by standing order) allowing the purchase of the steel and subsequent profiling and machining to take place in May/June 2014. In return for this commitment and as well as being the first contributors to this exciting project, members receive these exclusive benefits:

- Reserved seat on No. 2007's first main line train
- Reasonable access to No. 2007 at all times
- Exclusive Founders Club tie

- Opportunity to join one of the teams building No. 2007
- First choice of components to sponsor
- Special limited edition (signed/numbered) of the launch painting of No. 2007 by Jonathan Clay
- Special Founders Club day with *Tornado*

You can DOWNLOAD the registration form [here](#) to become a founder.

If you would like any help becoming a member of The Founders Club, or have any further questions, do not hesitate to get in touch by emailing us at enquiries@p2steam.com. The Founders Club will close to new members on 20th July following the public unveiling of the frames.

P2 IN CHICAGO

Christopher Ainsley sent us this photo from his office in Chicago, he commented, "I thought that you might like to see that I have had the splendid P2 print framed and hung in my office in the Willis (ex-Sears) Tower. Probably the only picture of a British steam train in downtown Chicago! It really does look magnificent; thanks for sending it along." The picture is on the 41st floor of the Willis/Sears Tower; the view out of the window in the background of the photo looks east towards Lake Michigan. Christopher signed up as a Founder at the London roadshow.



THE GRESLEY SOUND *by Andy Hardy*

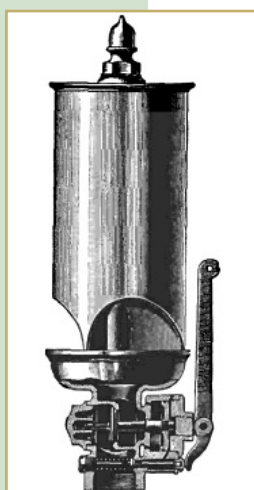
The Gresley beat is a phrase known to many railway enthusiasts across the country to describe the sound of the great engineer's locomotives at work. However there is another sound associated with those locomotives that we all know and love, the three tone chime whistle.

The chime whistle was first developed by John Einig of Jacksonville, Florida in 1877. The patent granted on the 30th January that year said that "the object of the invention is to produce simultaneously a whistle of three or more harmonious sounds". To do this the whistle housing was divided up into three compartments effectively creating three whistles within one casing operated by one valve. The Patent was bought by the Crosby Steam Gauge and Valve Co of Boston and becoming the cornerstone of their business until the Patent expired when other manufacturers started to make chime whistles.

The introduction of the chime whistle to the UK came not via the mainline railway companies, but via the privately owned Romney, Hythe and Dymchurch Railway. This 15 inch gauge mainline in miniature, owned by Captain J.E.P. Howey, had been honoured with a visit from the Duke of York, who, on 5th August 1926, drove engine No. 2 Northern Chief along the railway with Captain Howey squeezed onto the small footplate alongside him. Another guest was also present who, like the Duke, wished to see the locomotives in operation; that person was Mr (later Sir) Nigel Gresley. A friendship between Howey and Gresley developed with Howey later having miniature versions of Gresley's pacifics built to operate on the railway and Gresley arranging for locomotive No. 7 *Typhoon* to be displayed next to *Flying Scotsman* at King's Cross for publicity purposes.

Howey was also a fan of the Canadian Pacific Railway and regularly visited to ride on the locomotives. As a result he ordered two locomotives inspired by the Canadian Pacific fleet to become locomotives Nos. 9 and 10. Shortly after these were built, Captain Howey bought two Crosby Chime whistles for them, similar to those used on the full size locomotives. Soon after entering traffic Gresley saw No. 9 (at the time named *Doctor Syn*, now named *Winston Churchill*).

Gresley liked the sound of the whistle fitted to locomotive No. 9 so much that Captain Howey presented him with the whistle destined for No. 10. Gresley did not use the whistle at first and it seems to have kept it as an ornament. However with the construction of *Cock o' the North* Gresley decided to fit the whistle to the new locomotive, specifying it to be fitted at the front of the locomotive chimney. Its prominent position atop the locomotive smokebox in the dead centre of the locomotive helped to enhance and complete the 'face' of his iconic new locomotive and drew much attention in the railway press. Soon after No. 2001 was completed Gresley contacted the Crosby Chime Company and obtained quotes for whistles



The Crosby chime whistle

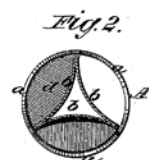
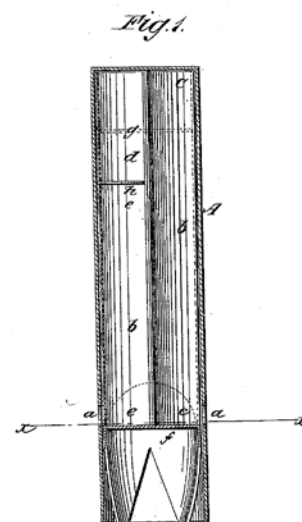
The Einig patent

J. EINIG.

STEAM-WHISTLE.

No. 186,718.

Patented Jan. 30, 1877.



to equip more LNER locomotives including the A4's and the rest of the P2 class.

In 1934 Gresley returned the gesture and presented Captain Howey with a chromium-plated A4 whistle which is still in use today on the RHDR on locomotive No. 8 *Hurricane* a locomotive based on Gresley's three cylinder pacifics. With the outbreak of the Second World War the chime whistles were removed from most of the locomotive fleet, allegedly due to possible confusion with air raid sirens. After the

war however the LNER started producing its own chime whistles due to restrictions on imports imposed to try and recover the economy of the time. However there was one difference that could be heard if not seen. The original Crosby whistles were tuned to the notes C, F & Ab (A-Flat); however, the whistles produced post-war were a semitone higher (one step higher on a piano) and tuned to C#, (C-sharp) F# (F-sharp) and A, the change in tone being caused by different manufacturing and material specifications. Thanks to a kind offer from a Covenantor the Trust is already using a post-war chime whistle from A4 locomotive No. 60023 *Golden Eagle* on *Tornado* and once complete *Prince of Wales* will carry a chime whistle, hopefully of the correct lower pitch.