

THE MIKADO MESSENGER

No. 1 November 2013



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



The Gresley Society Trust



Welcome

...to Special Edition No. 1 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 in the spring.

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Above: No. 2007 Prince of Wales. Below: TRH The Prince of Wales and the Duchess of Cornwall name Tornado.

NEWS BRIEFS

● **NO. 2007 PRINCE OF WALES** – The P2 Steam Locomotive Company (P2SLC), the builder of Britain's most powerful steam locomotive, is delighted to announce that the name of its new Gresley class P2 2-8-2 steam locomotive will be *Prince of Wales*. The new steam locomotive is being named in honour of HRH Prince Charles, The Prince of Wales, to coincide with his 65th birthday celebrations and The Queen has kindly approved the use of His Royal Highness's name for the locomotive.

The P2 Steam Locomotive Company is a subsidiary of The A1 Steam Locomotive Trust (a registered charity), the builders and operators of No. 60163 *Tornado*, the world-famous new steam locomotive completed in 2008 and



Neil Whittaker

officially named by TRH The Prince of Wales and The Duchess of Cornwall at York station on 19th February 2009.

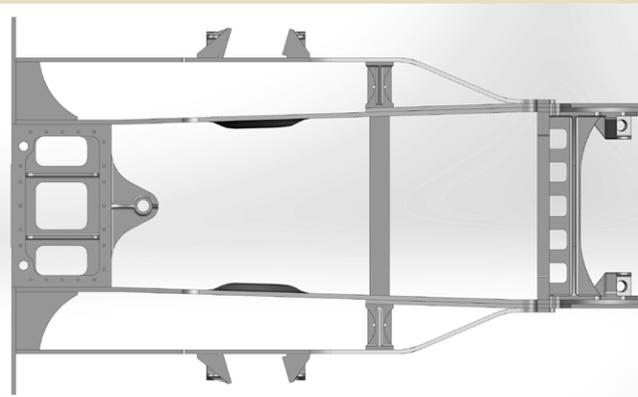
● **NAMEPLATES** – Nameplates for the new locomotive have already been made by Procast.



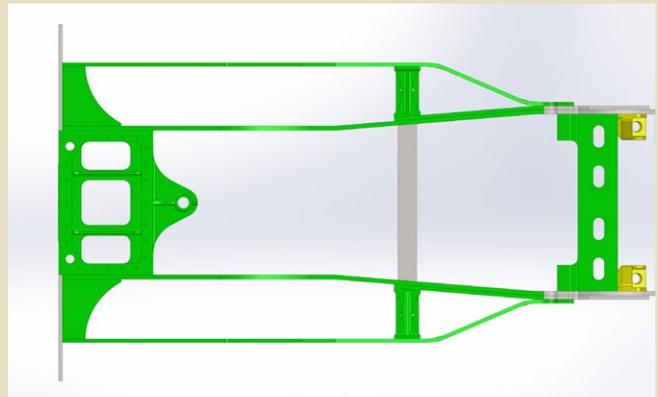
● **ENGINEERING UPDATE** – The P2 Project was officially launched at the A1 Convention in September. This gave David Elliott the opportunity to bring the assembled company up to speed on the design work going into No. 2007. David surprised his audience with a CAD diagram of the frames showing that a great deal of development work had been quietly going on behind the scenes. The frames (illustrated here)

will benefit from the adoption of a great many features carried by *Tornado* including roller bearings; the decision to fit these has led to a requirement for larger hornblocks and a consequent re-working of some of the stretchers. David also revealed that the rear (Cartazzi) frames would be better formed like *Tornado's* to avoid the complicated shaping of the P2 frames, which, coupled with the A1 style

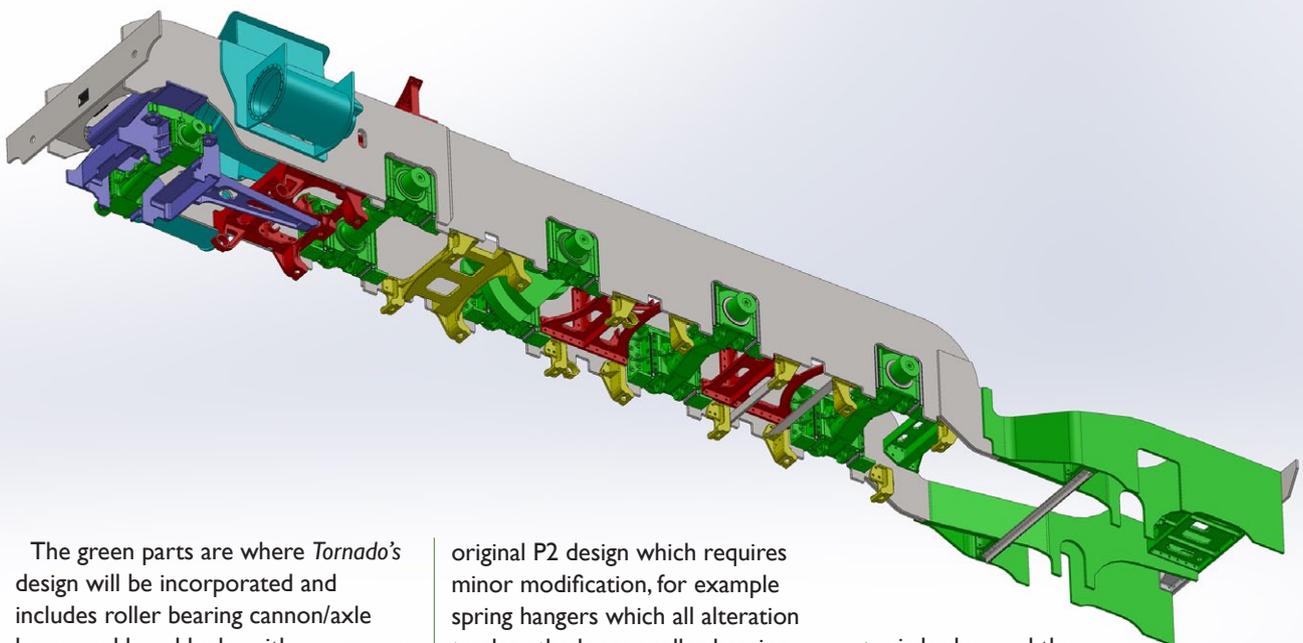
dragbox, should create much more rigid design. The 3D CAD model (drawn in Solidworks) shows some of the changes that will be incorporated in the frame design. The grey parts are almost identical to the original design being principally the main frame plates. The only significant change to them is the plate thickness, eg 30mm today instead of 1 1/8" in the originals.



This is the original arrangement for No. 2001 showing the inner frames dished to clear the axle.



This is the proposed re-design for No. 2007 employing *Tornado* architecture in the structure of the inner frames.



The green parts are where *Tornado's* design will be incorporated and includes roller bearing cannon/axle boxes and hornblocks with manganese steel liners. The whole of the rear frame area under the cab and firebox where the original design has a dished section in the inner frames to clear the bosses of the Cartazzi wheelsets (in common with Gresley A1/A3 classes). The yellow components are

original P2 design which requires minor modification, for example spring hangers which all alteration to clear the longer roller bearing hornblocks.

The red components are original P2 design amended for modern construction requirements, for example large frame stays which were designed to support vacuum brake cylinders which will need redesign for

air brakes, and the front boiler support which will need altering to accommodate the shorter A1 boiler. A further elaboration of the frames CAD shows the fitting of a fabricated cylinder monobloc (blue) and the arrangement of a V2 pony truck (purple).

● HELP THE P2 – THE FOUNDERS CLUB

The Founders Club already consists of 150 members (with a target of 250), 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 cutting to take place in May 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.

VOLUNTEERS

The P2 Steam Locomotive Company is seeking volunteers to fill the following roles:

- Finance director
- Purchasing manager
- Additional project management resources
- Events co-ordinator
- Education officer
- Darlington-based stakeholder manager

Please reply to:
enquiries@p2steam.com

Jonathan Clay's tremendous painting of No. 2007 Prince of Wales.



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