

4253
Supporter

Newsletter

Keeping Shareholders Informed



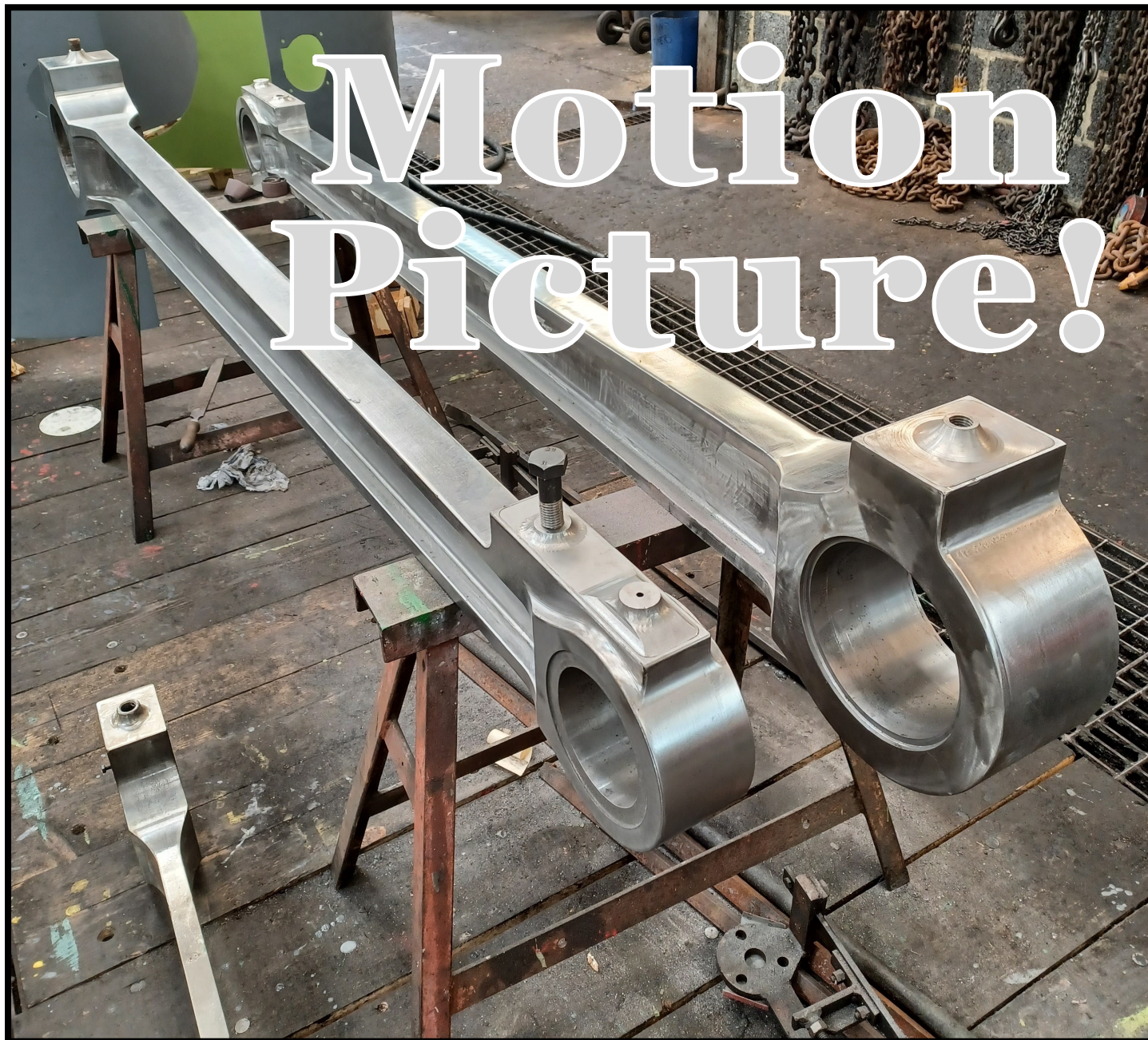
Issue 18

Summer 2022

The 4253 Locomotive Company Limited, based in Rolvenden, Kent, is a non-profit, non-political organisation. Reproduction of photos by permission of The 4253 Locomotive Company.

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Motion Picture!



After years of phone calls, searching in long grass, poking around in people's sheds and the reluctant manufacture of two new ones,
we now have a complete set of rods for 4253
... please read on

4253 Coupling and Connecting Rods

Another great step forward for 4253 — we now have a complete set of eight rods, which means the loco now has all the necessary motion parts for movement under its own steam. The motion consists of a complicated arrangement of rods and eccentrics, both external and internal, which together is called ‘the motion’, enabling the horizontal thrust of the cylinders to be converted into rotation of the wheels, which in turn operate the valves via axle eccentrics for the input and exhaust of steam at the cylinders. All this complicated arrangement enables movement of the locomotive.

The last two rods, machined at Automation Technologies, were collected a couple of weeks ago, which completes the set of six coupling rods and two connecting rods.

It has literally taken years and years to gather together all the rods for 4253. The tradition at Barry scrap yard, where 4253 once languished waiting to be scrapped, was to cut off the rods for ease of movement around the yard, so our loco, along with many others rescued from Barry, did not have any rods when delivered to Rolvenden in 2011.

Nonetheless, endless searching up and down the width and breadth of the UK to try and locate 42xx series loco rods gradually proved fruitful and six rods were brought together one by one at Rolvenden — but, one coupling rod and one connecting rod still eluded us. The point came when, as you probably know from previous newsletters, a decision was made to have two new ones made from scratch. A decision not taken lightly given the costs involved, but necessary given that all the other major components were coming together.



The early stages of machining on the coupling rod.

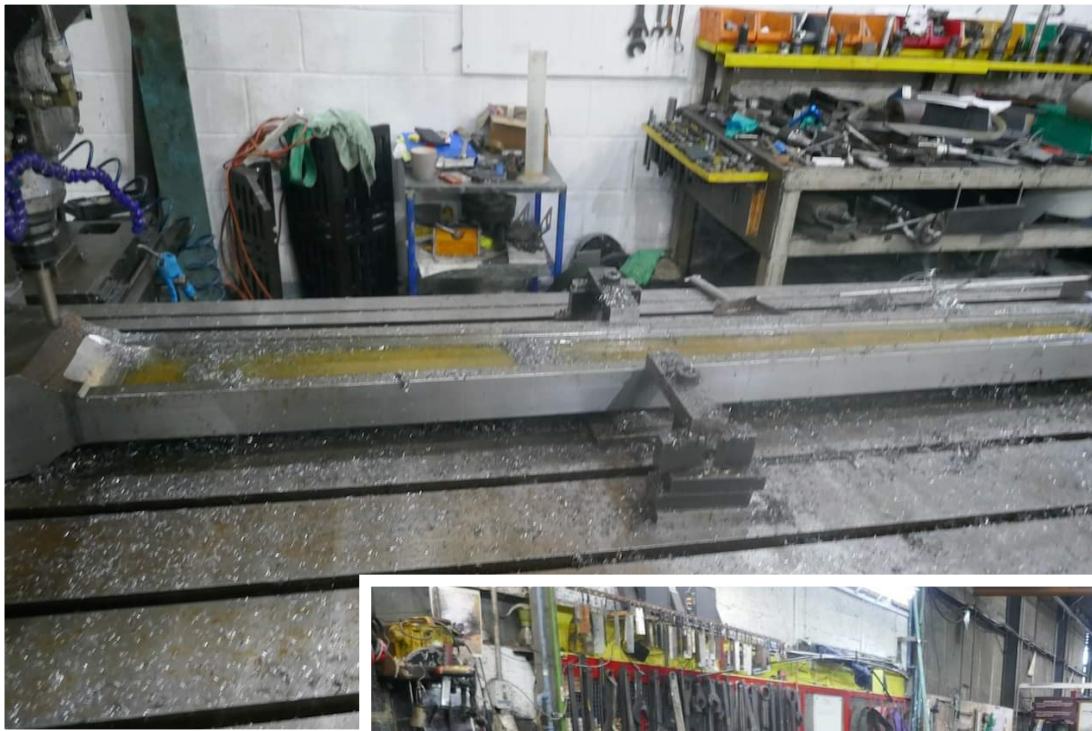


Final computer controlled machining of the coupling rod at Automation Technologies.

So, after the ingots were forged at Sommers, West Midlands, the water jet cutting of the basic shapes was completed at SCISS, Staplehurst and final machining at Automation Technologies, the two new rods were united with the others and are now ready to have bronze bushes pressed in and then machined before fitting to the loco.

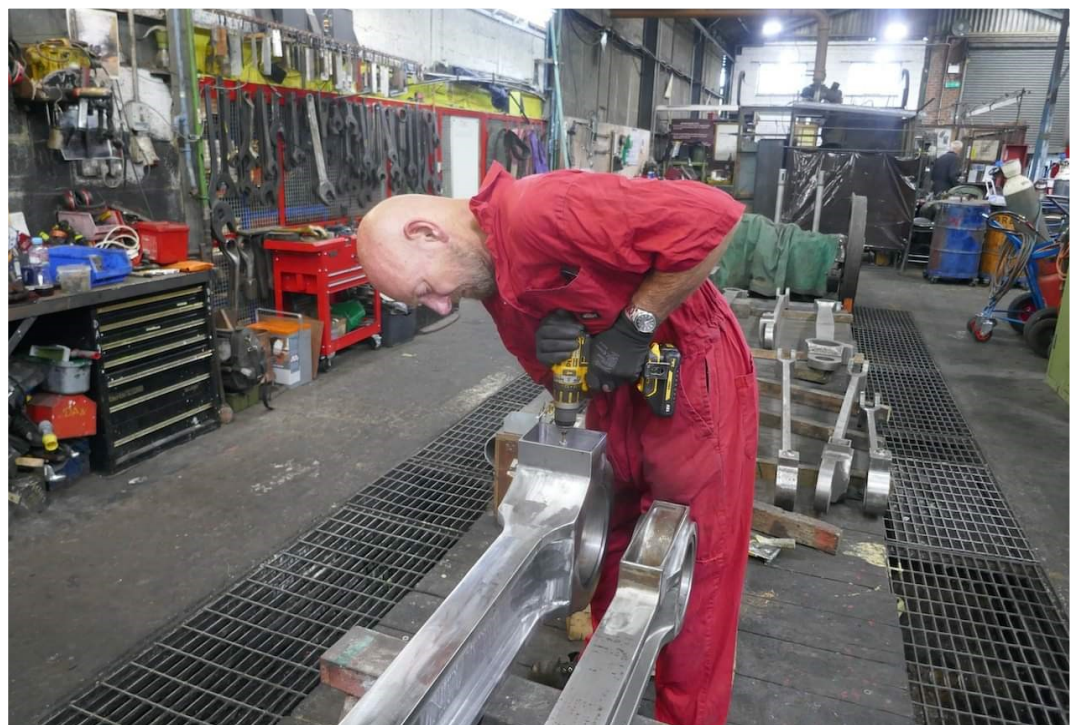
4253 Coupling and Connecting Rods cont'd

The connecting rod being machined on Automation Technology's state of the art computerised machine.



The connecting rods are fluted on either side, which can be seen in this picture. This not only saves weight but adds lateral strength.

We'll let you know, in subsequent newsletters, when and how the rods are fitted to the loco, which hopefully shouldn't be too long now!



Jerry can be seen here drilling into the oil pot to take the oil restrictor. This prevents too great a flow of oil through to the bearing from the oil reservoir.

Help get us 'Back On Track'!

With the boiler needing final completion and with the two new rods now delivered, we desperately need your help . . .

**TO KEEP THE PROJECT 'ON TRACK'
AND TO ENABLE US TO GET THESE VITAL
ITEMS FITTED TO THE LOCO.**

At the end of this newsletter are application forms for **Plug the Gap** and **Stay With Us** appeals.

If you can help in any way, no matter how small, please either **Buy a 4253 Share,**

Sponsor Plugs and/or **Stays,**

or simply make a **Donation** to help get your locomotive back into steam.

We thank all shareholders for their continued fantastic support with this historic restoration project.

Thank you.

To make things easier, we have put all the options on our website.

Please go to:

www.4253.co.uk/how-to-help/

4253 The Valves

Great news! The valves have now been fitted to 4253.

With eccentrics, crossheads and pistons also fitted, all that's left to do is fit the connecting and coupling rods — and the motion is complete.

So why the big hurrah?

Well, it's all very well celebrating the installation of the pistons, but without the valves they're pretty much useless. The valve function, in very simple terms, is the same as the valves in your car — they allow fuel/air mix to enter at the right moment in the combustion cycle and allow exhaust fumes to exit. The steam valves have a similar function, but with steam.



The valves waiting to be installed in the valve cylinders.



First valve on the hoist, ready to be slid into position.



A few of the Sunday gang looking a bit too happy.

This picture was probably taken before the swearing started whilst trying to get the valves into their cylinders!

Don't forget our website and online shop!

We're always open - 24/7 at:

www.4253.co.uk

Find out how you can help with buying
Shares, Stays, Mugs, Plugs,
Donations and much more!

Also, see past Newsletters and the
weekly Facebook progress reports . . .

it's all there, just go to our website and
support *YOUR* locomotive restoration.



4253 Fund Raising and Public Awareness



A happy crew at the 'Spirit of Tenterden' event!

Apart from our regular reports on Facebook, the Kent & East Sussex Railway newsletter and Lineside News, plus this shareholder's Newsletter, we have once again begun attending various shows with our Tombola and sales stand, which will add additional funds for the restoration of 4253.

St. Mildred's Church Model Railway Show and **Wrotham Car and Steam Rally** were our first events for 2022, followed by the three day **Spirit of Tenterden Fair** and **Dartford Park – Best of British**, so a number of events are already in the bag.

At the time of going to press, other events we'll be attending are:

6th and 7th August — Weald of Kent Steam Rally

20th and 21st August — Tractor Fest, Biddenden

29th August — Bexhill 100 Classic Car Show

Not only do we hope to raise awareness of the 4253 project by taking our stand to public events and talking to people about the restoration, but also raise much-needed funds to continue pushing on until 4253 is back in steam. These fundraising events have been absent over the last couple of years because of Covid, which has left a large hole in our bank account, so we are going flat out on our stand this year promoting our very successful Tombola and a large range of 4253 merchandise.

If you or any of your friends or family plan to visit any of these events, please tell them to pop over to our stand and say hello!

Also, please let us know if you would like to help out with our stand on any of our events and join like-minded shareholders for a good day out.

We'll be pleased to see you!

Please email Mark, our Events Co-ordinator: events.at.4253@gmail.com

If you would like to sponsor one or more 4253 Washout Plugs,
please complete the Plug the Gap form below.

Alternatively, you can also sponsor Washout and Fusible Plugs directly on our
website. Please follow the link below:

<https://www.4253.co.uk/shop/fundraising/plugs/>



GWR 2-8-0T Locomotive 4253 'Plug the Gap' Application Form

Please complete the form below in BLOCK CAPITALS and return to:
The 4253 Locomotive Company Limited
Old Chilmington Oast, Chilmington Green, Ashford, Kent TN23 3DP

Full Name: _____

Address: _____

Telephone Number: _____

Email Address: _____

I hereby make an application for:

_____ Washout Plug(s) @ £45 each _____ Fusible Plug(s) @ £45 each = Total: £ _____

☐ I enclose a cheque made payable to: The 4253 Locomotive Company Limited.

☐ I will pay by BACS (Bank details below): Please use reference 'PLUGS'.

I am a member of The Kent and East Sussex Railway: Yes / No (delete as appropriate)

☐ I consent to being contacted by 4253 Locomotive Co. via email/post
for information updates about 4253 progress and activities.

Signed: _____ Date: _____

PLEASE MAKE PAYMENTS TO:

The 4253 Locomotive Company Limited

Account Number 47817011 • Sort Code 60-01-21

National Westminster Bank Plc.

20 High Street, Ashford, Kent. TN24 8SH.

The 4253 Locomotive Company Limited

25 Winsor Road, Rolvenden Layne, Tenterden, Kent. TN17 4NL Share

November 2021

In Liverpool things are looking up — in fact, the right way up!

With the finish line now in sight, the boiler is entering the final straight to completion.

Yes, at last, the boiler is the right way up. The boiler has been upside down for so many years now, resembling some strange looking submarine — it finally looks more like a boiler should.



Now all the hundreds of stays are complete (excluding the crown stays that support the top of the firebox) and the longitudinal stays are in position, it just requires the main steam pipe and associated pipework to be fitted and the front tube plate can go in. After the riveting of the foundation ring, it's then ready for retubing and final hydraulic testing.

The temporary longitudinal stay template can be seen in the end of the boiler, on the right of the picture above. This will be removed when the tube plate is riveted into position.



With the boiler the right way up (at last), we get a better impression of just how big it is!

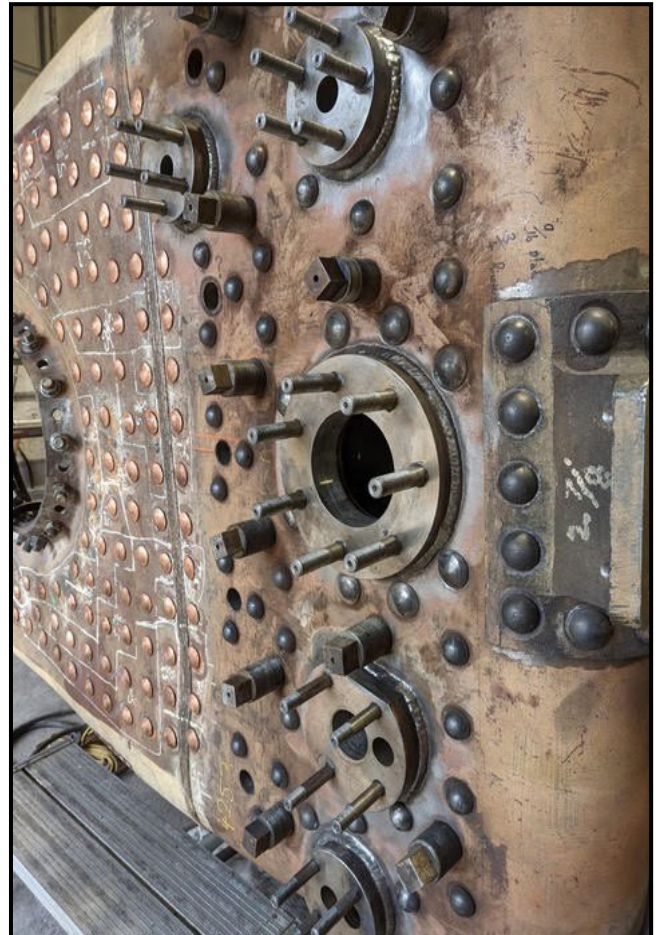
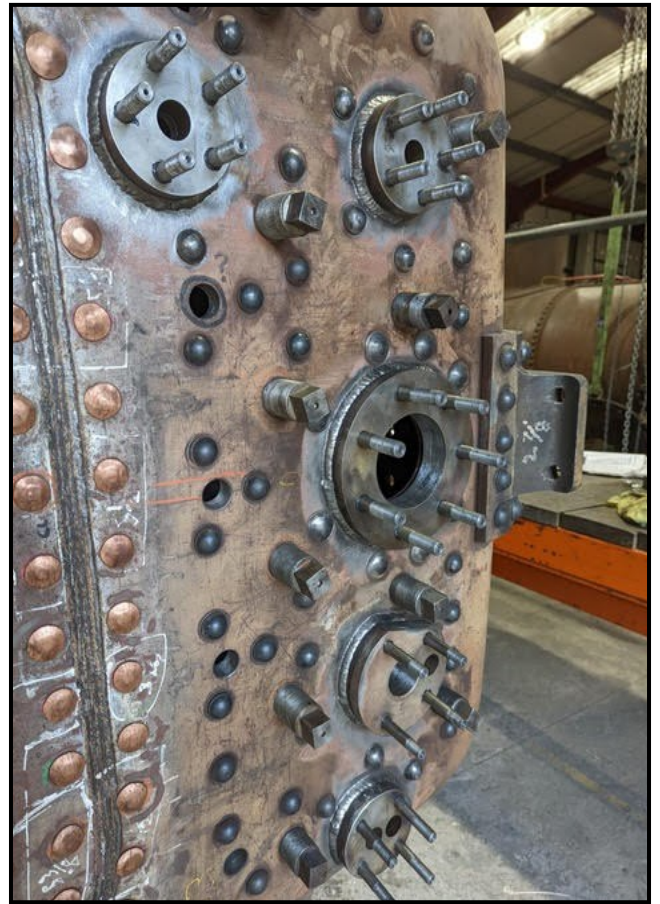
4253 Boiler Report *continued*

These pictures from HBSS, show the back-head with all the necessary pads, now welded in place together with all the studs required to take the many and varied steam pipes, gauges and main regulator fixtures and fittings.

We have all these fittings in store (*see page 11*), so as soon as the boiler returns . . . we are ready!

In the centre of the picture (*right*) can also be seen a row of 'wash-out' plugs for cleaning out the boiler. These, together with 'mudhole' doors, which are strategically situated on the boiler, enable any sediment and scale to be washed out during regular maintenance.

An end view of the boiler (*below*), showing how the boiler will look from the cab view — although with a lot more pipework and stuff bolted on!



4253 Boiler Report *continued*

Now let's have a quick look at some of the boiler backhead 'fixtures and fittings' which, as we have said, are ready and waiting for the boiler to be fitted into the loco.

We'll have a more detailed and closer look at what each fitting does in the next newsletter.



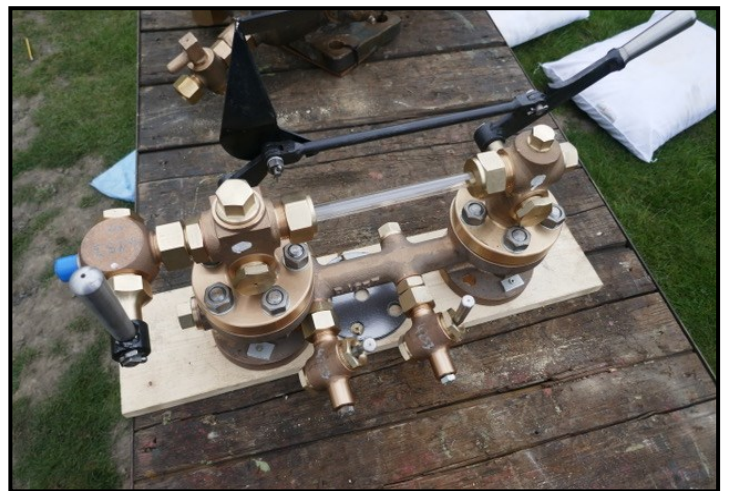
Hydrostatic Sight Feed Lubricator.



Masons Valve.



Brake Ejector.



Water Gauge.



Steam manifold.



Some bits and pieces together — very impressive!

Stay With Us!

A COMPELLING OPPORTUNITY TO HELP BRING TO FRUITION THE NATION'S MOST EXCITING LOCOMOTIVE RESTORATION PROJECT - SPECIFICALLY TO COMPLETE OUR BOILER!

WE ARE PLEASED TO INVITE YOU TO SPONSOR

CROWN STAYS RIGID STEEL STAYS COPPER STAYS

Your chance to help finish the boiler

2019 saw major inroads into our boiler restoration.

However, as the year progressed we realised that we had an opportunity to accelerate the refurbishment work on our locomotive to an earlier conclusion than originally envisaged.

So, with the blessing of our shareholders present at the January 2020 AGM, we immediately arranged for our boiler to be dispatched to Heritage Boiler Steam Services of Liverpool, where work has been progressing steadily ever since.

We had the financial resilience, we had the confidence in our own decision making ability, we had projects in the pipeline and we knew our team could cope with and close the funding gap that existed at that time.

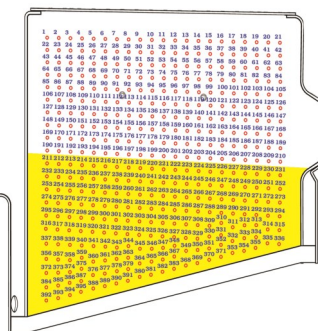
The Layman's Guide to Boiler Stays

Of all the components found in the construct of a locomotive boiler, the humble stay is probably the most important.

The thrust of our 'Stay With Us!' campaign is aimed at those encompassing the burning heart of any steam locomotive - the firebox. A seemingly innocuous piece of engineering, boiler stays are generally composed of a steel or copper rod, threaded at each end and depending on location, vary approximately between 6" & 16" in length. In keeping with Swindon practice 4253's firebox area has a copper inner and steel outer wrapper, with a water space between them - in front of, behind, above (the crown) and on the sides.

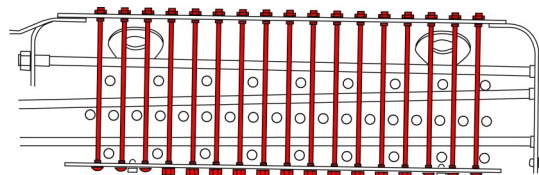
The stays are braced between the two in all these areas, strategically providing rigidity and flexibility to what is essentially a massive pressure vessel. The material used is in accordance with the relevant stress design criteria. They are basically screwed into position and riveted over to finish and seal.

Outwardly they have a neat and innocent looking domed appearance - inwardly they present a structural forest. About 70% of the 4253 firebox stays are to be renewed and installed by our contractors at HBSS, Liverpool - all we have to do is supply them! *That's where you come in!*



Firebox wrappers

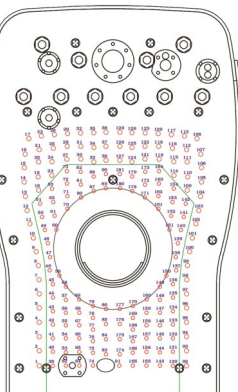
A combination of copper and rigid steel stays. We are renewing all throatplate stays, backhead stays, crown stays and a percentage of the side wrapper plate stays. The stays within the



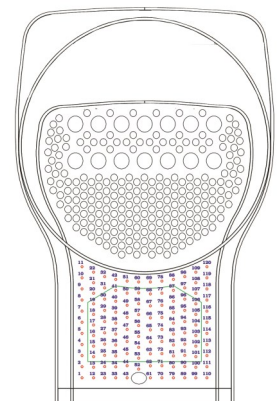
Cross section of firebox
Side view showing crown stays and nuts (in red). 174 stays are required to

How You Can Help

You can sponsor a set of 3 stays for £99. Each set comprises 1 crown stay and 2 nuts, 1 copper stay and 1 rigid steel stay. Two or more sets can be sponsored by Standing Order, spread over 6 months. Alternatively, you can sponsor individual stays.



	Per Stay	Per Set of Stays	Total No. of Stays
Rigid Steel Stay	£17.50	} £99.00	412
Copper Stay	£35.00		288
Crown Stay & Nuts	£50.00		174



By sponsoring any of the above you will receive a personalised certificate and be entered into a draw for a footplate ride on GWR 4253 on the earliest available date after launch into service.

Please visit www.4253.co.uk for further information and online payment details.

If you wish to set up a bank Standing Order, please print the form and post to the address shown.

Please help get YOUR boiler back into steam!

**Application to set up a Bankers Standing Order for 'Stay With Us' appeal (minimum 2 sets).
Please print, complete the form and post to the address shown below.**



GWR 2-8-0T Locomotive No. 4253 'Stay With Us' Application Form

Please complete the form below in BLOCK CAPITALS and return to:

The 4253 Locomotive Company Limited. Old Chilmington Oast, Chilmington Green, Ashford, Kent TN23 3DP

Full Name: _____

Address: _____

Telephone Number: _____

Email Address: _____

I hereby make an application for ____ Rigid Steel Stay(s) ____ Copper Stay(s) ____ Crown & Nuts Stay(s)
and / or ____ Complete set(s) of Stays.

I enclose a cheque made payable to The 4253 Locomotive Company Limited / a completed Bankers Standing Order
(*please delete as appropriate*).

STANDING ORDER OPTION ONLY AVAILABLE IF SPONSORING COMPLETE SETS OF STAYS - MINIMUM 2 SETS.

I am a member of The Kent and East Sussex Railway: Yes / No (*please delete as appropriate*).

☐ I consent to being contacted by 4253 Locomotive Co. via email/post
for information updates about 4253 progress and activities.

Signed: _____ Date: _____

Bankers Standing Order Form ('Stay With Us')

(if you wish to pay by monthly Standing Order over 6 months)

To the Manager: _____ (Your) Bank

Your Bank Address: _____

Please make 6 payments of £ ____ on the ____ day of every month commencing on ____ / ____ / ____ to:
**The 4253 Locomotive Company Limited, Account Number 47817011 National Westminster Bank Plc.
20 High Street, Ashford, Kent TN24 8SH. Sort Code 60-01-21.**

Account Name: _____

Your Address: _____

Sort Code: _____ Account Number: _____

Signed: _____ Date: _____

*Please quote Reference Number in all payments _____ * to be entered by 4253 Project Staff.

The 4253 Locomotive Company Limited, 25 Winsor Road, Rolvenden Layne, Tenterden, Kent TN17 4NL - Stays

November 2020