



# Newsletter

*Keeping Shareholders Informed*



**Issue 19**

**Christmas 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.

**Editors: Dave Farnham and Kelvin Williams    Email us at: [gwr4253news@gmail.com](mailto:gwr4253news@gmail.com)**



*Best wishes for  
Christmas and a big  
Thank You to all our  
4253 shareholders*

With yet another year gone, we can look back on what has been for 4253, an almost near-normal 12 months. The success of our post-covid fund raising events this year, under the guidance of our Events Co-ordinator Mark Singleton, have added much needed funds to our ever draining bank balance. More to the point, it has enabled the monthly bills received from the boiler specialists of HBSS at Liverpool to be paid. Progress has been solid and steady and, thus far, we have not had to slow the boiler work due to a lack of funds despite it being a close call at times. This was not helped by a couple of areas on the barrel that were found to need additional repair work.

With the second anniversary of the boiler having been shipped up to HBSS in January 2021, it has taken longer than initially anticipated. Covid threw a very large spanner in the schedule, which in turn also impacted on our ability to generate funds.

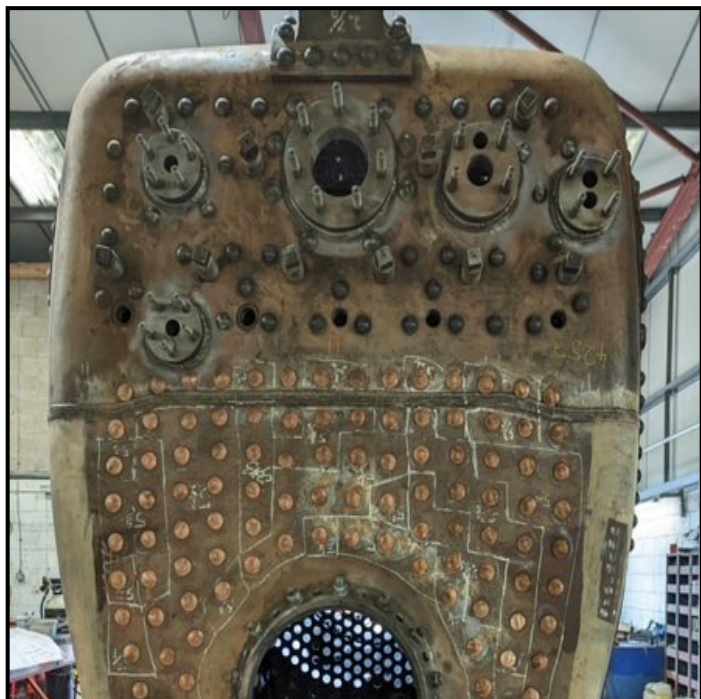
But there is light at the end of the tunnel with the boiler now in its final stages of completion!

***Once again, the 4253 directors would like to thank all shareholders for their continued support with the restoration of YOUR locomotive.***

## 4253 Boiler Backhead Fittings

### *... and all that brass!*

A considerable amount of the money shareholders and sponsors have provided, has gone into brass and copper. For instance, you know through our appeals and boiler updates that the firebox is fastened by *a lot* of expensive copper stays.



Before and after pictures. A complex array of fittings and pipework adorns the boiler backhead of a locomotive once it has all the necessary fixtures and fittings attached.

*(photo from GWSR)*

We think it's time to talk about the other shiny bits, namely the parts that will be in the cab when 4253 is operational. Over the next couple of newsletters we will introduce you to these, in what the BBC likes to call 'bite size' sessions.

*So, let's start at the top (of the cab):*

*(photos Kelvin Williams)*

### **Hydrostatic Lubricator Condensing Coil**



Coil fitted and connected in a working locomotive.



New coil fitted to the roof of 4253's cab.

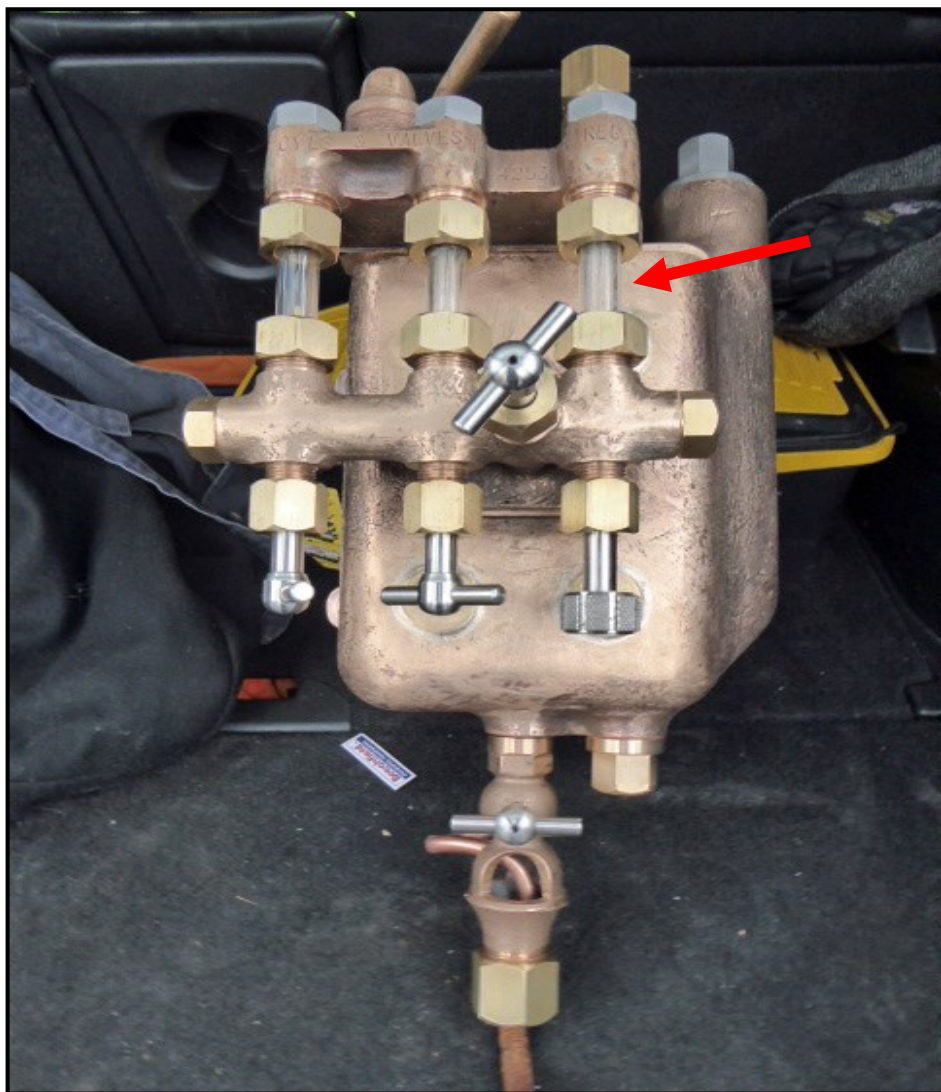


## 4253 Boiler Backhead Fittings *continued*

Mounted in the roof, this is connected to the boiler from where steam is supplied to a copper condensing coil where it turns into very hot water. This hot water is then supplied to the Hydrostatic Lubricator. The coil in 4253's cab was made by *Trevor Tremblin* to the exact pattern of the original.

### Hydrostatic Lubricator

The one-piece lubricator body, made for 4253 by *John Hancock*, is a gunmetal casting (a type of bronze) and incorporates the oil reservoir and the sight-glasses fitted at the front and back of the body (*indicated by the red arrow, below*). Passages within the body interconnect these areas.



The body is fitted with a steam valve, a water valve and oil control valves. In operation the condensed hot water from the condensing coil passes into the bottom of the oil reservoir and the sight-glass chambers.

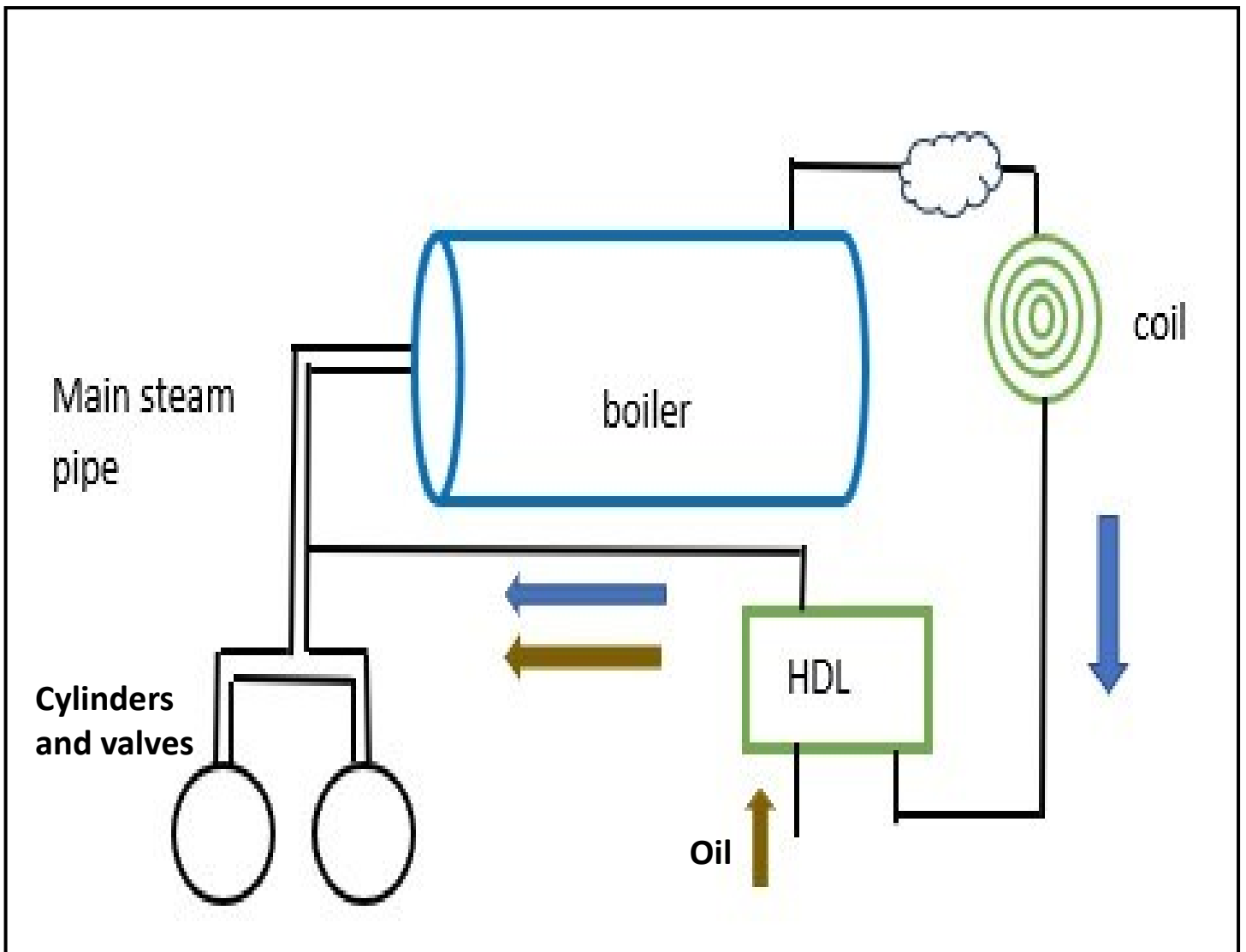
When the sight-glass chambers have filled with the hot water, the oil delivery for each feed, regulated by control valves, is released upwards into the water-filled sight-glass chambers.

The rate of delivery, controlled by the T-valves (typically two or three drops of oil through each feed per minute), is monitored by watching the progress of the drops as they rise through the water.

The oil gathers above the water and passes into the delivery pipework. These pipes take the atomised oil/water mix to the front of the locomotive to be used to lubricate the pistons and valves.

## 4253 Boiler Backhead Fittings *continued*

***The Hydrostatic Lubricator system:***



***There will be more shiny bits explanations in the next Newsletter!***

### ***A gentle reminder to all shareholders:***

Can you please let us know of any changes to your telephone number, address or email address, so that we can keep our mailing database up to date.

*4253 Locomotive Company never shares any information with any other third parties.*

It is important to us that we remain in contact with all our shareholders and that our mailing database is accurate.

**Email: [gwr4253news@gmail.com](mailto:gwr4253news@gmail.com)**

**If you haven't told us about your new email address - then you are probably not reading this!**

# Help get us 'Back On Track'!

With the boiler needing final completion,  
we desperately need your continued 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/](http://www.4253.co.uk/how-to-help/)***



**4253**

**Locomotive Company Ltd**

# **Notice of AGM**

**Saturday  
14th January 2023.**

**Meeting starts at 2.00pm.**

*To be held at:*

**Station Platform Buffet  
Tenterden Town Station  
Station Road  
Tenterden  
TN30 6HE**

Don't forget our  
 website and   
online shop!

*We're always open - 24/7 at:*

**[www.4253.co.uk](http://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

With the spectre of the Covid pandemic now hopefully history, our events teams were able to get out and about and were hard at work throughout the last 12 months. Various teams of volunteers have so far attended no less than eight events - nine by the close of the year, which is a superb achievement. Volunteers have been led and organised throughout by Mark Singleton.

Arranging the events, loading trailers (*and unloading them*), travelling to (*and travelling from*), setting up our marquee and sales stand (*and taking it all down again*) is a lot of hard work. Although many events were blessed with fine dry weather this year, which makes things less of a chore, it is nonetheless a fantastic result. On behalf of the shareholders and directors we send a big **Thank You** to all 4253 volunteers that helped out.



*The events attended in 2022 were:*

**St. Mildred's Church Model Railway Show, Tenterden**

**Wrotham Classic Vehicle Rally**

**Spirit of Tenterden**

**Best of British, Dartford**

**Woodchurch Steam Rally**

**Tractorfest, Benenden**

**Bexhill 100 Classic Car Show**

**AIMREC Ashford 180**

... and not forgetting our upcoming and potentially most important fundraising event, the **Kent & East Sussex Railway Santa Specials** which run over weekends from Saturday 3rd December right through to Christmas Eve, plus additional days during Christmas week. This adds up to 10 days' attendance at Tenterden Station where we have a large marquee housing our tombola stand and merchandise sales in a prominent position on the platform. As you can imagine, 10 days of potential sales is quite an important part of our annual fund raising endeavours for 4253.

**If you can help out on our sales and tombola stand for the K&ESR Santa Specials please send us an email. *You don't even have to do a full day if you don't want to!***

**Email Mark: [events.at.4253@gmail.com](mailto:events.at.4253@gmail.com)**



## 4253 Fund Raising and Public Awareness *continued*



Our sales stand at the Ashford International Model Railway Education Centre, Ashford 180 — November. From left, Graham and Janet Williams and our Events Manager Mark Singleton. They certainly look happy enough!



Colin and Marlene take a break on the Tombola stall (*above*).

A memory of hot summer days at the annual Woodchurch Steam Fair in August.

**If you or any of your friends or family plan to visit the K&ESR Santa Specials this year, please tell them to pop over to the 4253 stand and say hello!**

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

***We'll be very pleased to see you!***

**Email our Events Co-ordinator at: [events.at.4253@gmail.com](mailto:events.at.4253@gmail.com)**



## 4253 Fund Raising and Public Awareness *continued*



Our marquee display showing the progression of the project to visitors – Woodchurch.

Kent & East Sussex Railway Santa Specials event is always a good fund raiser for 4253 (*below*).



Look out Chris!

As usual, a good team turnout.



**Mark Singleton - 4253 Events Co-ordinator**

*After running our successful sales and tombola event stand for 5 years, Mark Singleton has decided to hang up his marquee and cable ties at the AGM. Although he is retiring from his 4253 role as Events Co-Ordinator, he will still be very much involved with the project, together with his work at the K&ESR.*

*Many of you will have worked with him on the sales stands and we are very sorry to see him go. His expertise with 4253 events will be greatly missed.*

***The directors and shareholders of 4253 would like to thank him for all the hard work he has put in over the past five years — not to mention the many, many thousands of pounds that have been raised for the project during his expert tenure.***

***I'm sure we'll still see him at forthcoming events!***

**Come and join the 4253 friendly  
Sales and Tombola Teams!**

As you can see from the notice above  
... we are now looking for a volunteer Events Co-Ordinator  
to run our fund raising events.

This entails taking charge of approximately 9 events throughout the year, culminating in the K&ESR Santa Specials.

*You would not be alone!* We have teams of experienced 4253 volunteers always eager to help with setting up and packing away after events.

It just needs someone in overall charge with an oversight of what's happening and who's doing what.

If you fancy joining our 4253 team, including free entry to a host of premier steam and classic events, please let us know.

**Email Charlie: [fog49@live.co.uk](mailto:fog49@live.co.uk)**



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  
Old Chilmington Oast, Chilmington Green, Ashford, Kent TN23 3DP

November 2022

## Solid, steady progress at the end of another 12 months

Much work has again been completed on our boiler as another year slips by. With Covid still casting its long shadow over our finances and with the knock-on effect still apparent in our bank balance, our end-of-year report for the boiler is '*steady, but solid progress*'. As we move into another year without the boiler back in the frames, we can only hope that 2023 will be the year for 4253 steam. Let's hope so.

Although I say "much work has again been completed", some of it is not immediately evident from the outside. Virtually all riveting is complete, stays are complete, palm stays are in, longitudinal stays are in and all patch screws are now in place. With washout plugs and 'mud hole doors' also completed, the HBSS 'to do' list is now much reduced and hopefully it will all now come together quite quickly. (*Read on for a report on all these elements*).

Bear in mind HBSS Liverpool are finishing the boiler right up to a hydraulic test before sending it back to us at Rolvenden, so they need to make sure every little thing is completed, both inside and out, before the test can be carried out to the satisfaction of the boiler inspector. Only when this initial test is passed will the boiler be loaded up on a lorry to begin its journey back down the M1 to Kent.



A view from inside the firebox looking towards the front



... and one from the other end.





I wonder why they're called Palm Stays?

This picture shows how they are threaded into the firebox copper and fixed to the boiler barrel.

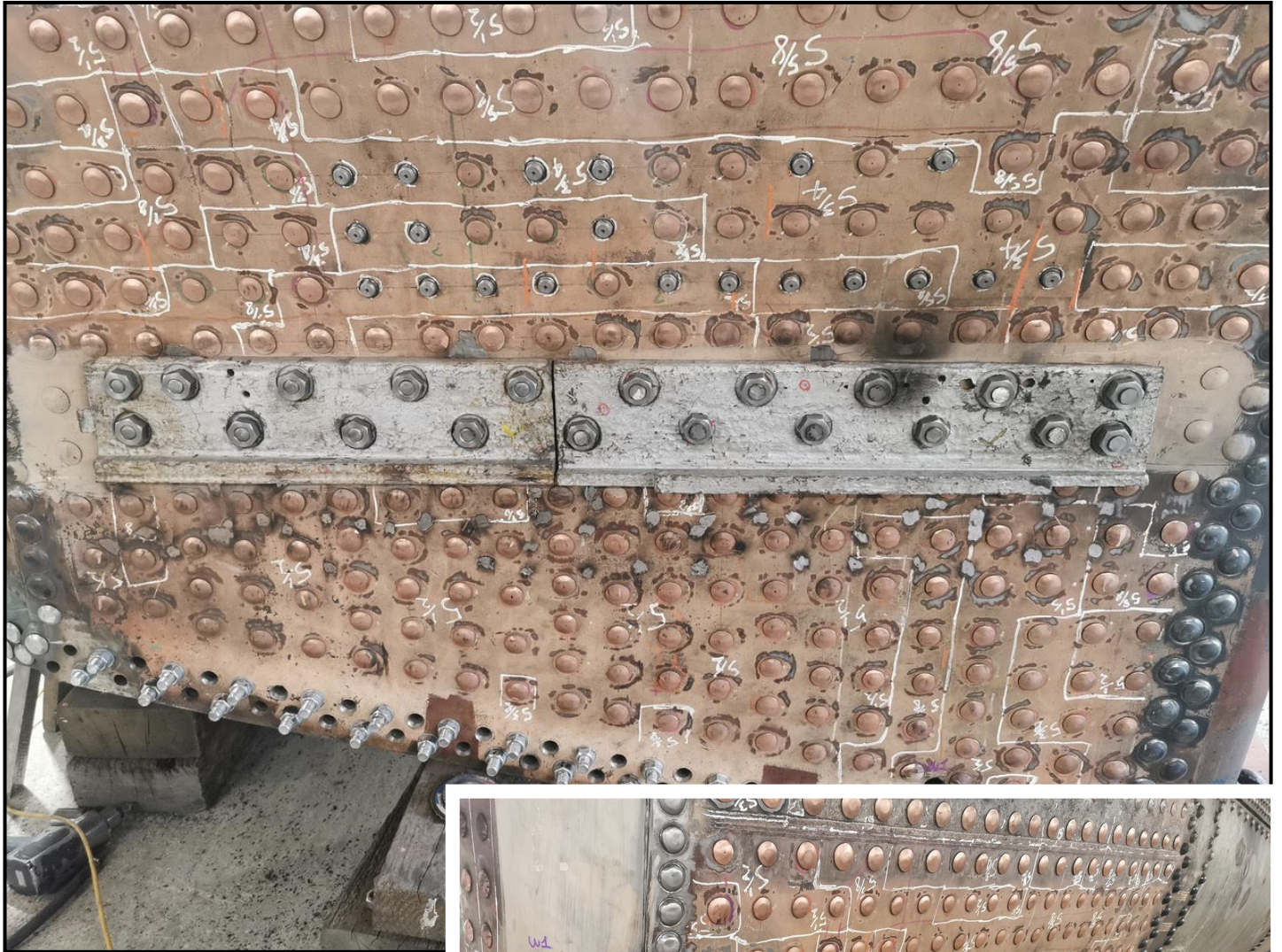
This picture shows the palm stays in their final position. These attach to the lower front area of the copper firebox and the steel boiler barrel, where the barrel is riveted to the throat plate. They give stability to the firebox and work in conjunction with all the other stays in preventing distortion of the firebox when subjected to the stresses caused by expansion and contraction. Thermal expansion and contraction is quite excessive given the length of the complete boiler, not to mention the stresses subjected to the differing metals. Boiler stays literally hold the firebox in place and prevent it distorting under extremes of temperature.

Given that a boiler's 'life' is 10 years before a complete rebuild is necessary, these elements are subjected to many stresses over its normal working lifespan.

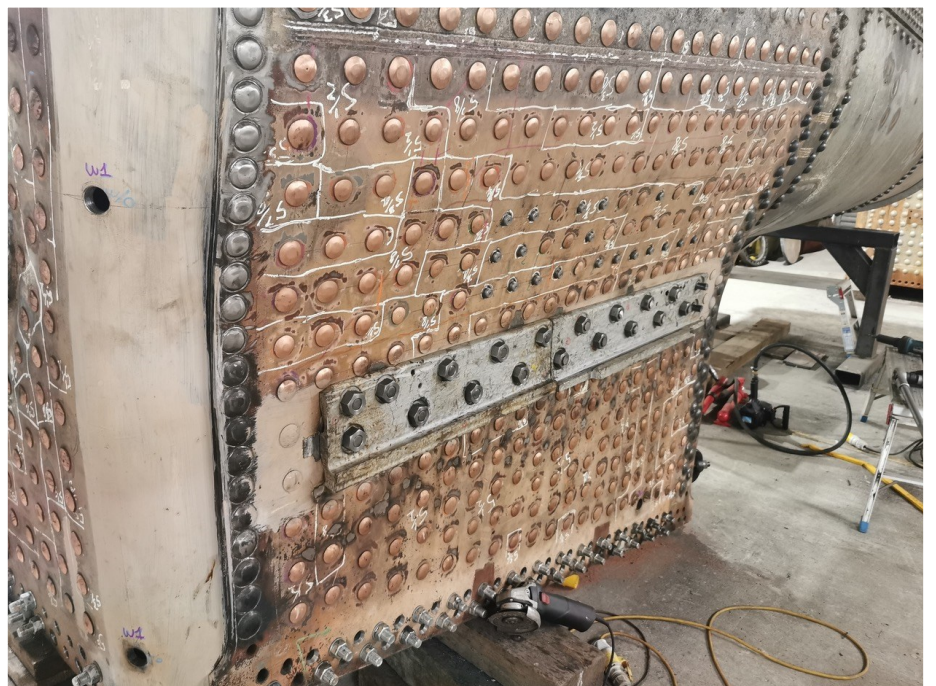


## 4253 Boiler Report *continued*

While we are talking about expansion and contraction of a boiler; at the back (and on each side), are a set of expansion brackets (*see pictures below*). When the boiler is placed in the frames it sits in these brackets with corresponding ones fixed to the frames. These allow it to expand and contract along its length. So the boiler, which weighs a substantial percentage of the total locomotive weight, is locked in at the back and bolted to the smoke box saddle at the front.



These two pictures show either side of the boiler with the expansion brackets now in place. The brackets are fixed through to the firebox with steel stays, rather than copper, to give additional strength.







These three pictures show the patch screws being fitted to the rear corners of the boiler.

These so called 'patch screws', are necessary in the tight curved edges of the boiler. These areas are either inaccessible or at the wrong angle for riveting, so the corner holes are counter sunk (*being demonstrated here at HBSS, top right*). The holes are then threaded and special snap-off patch screws are screwed in which, yes you've guessed it, snap off when they get to the correct torque. Clever!

You can just make out a threaded, counter sunk hole in the bottom picture ready to take the next patch screw.





## 4253 Boiler Report *continued*



Finally, a brief mention of yet another set of holes in the boiler ... 'Mud Hole Doors'.

These are aptly named holes to allow the build up of sediment or 'mud' to be cleaned out when the boiler undergoes its regular washout routine.

These mud holes enable clean water to be flushed through the boiler space around the fire box - and as you can see, are pulled tight from the inside out, after the washout is completed. This design guarantees a good seal when the boiler is at working pressure.





# 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.

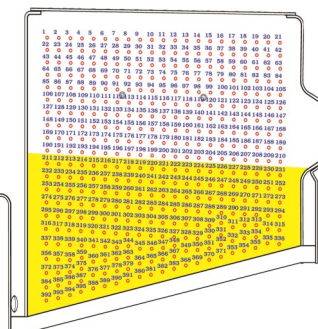
## The Layman's Guide to Boiler Stays

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.

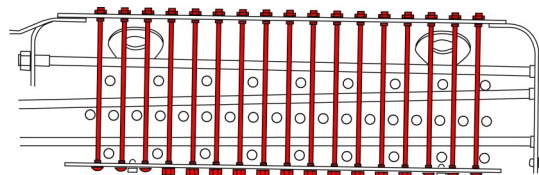
The stays are braced between the two in all these areas, strategically providing rigidity and flexibility to what is essentially a massive pressure vessel. The material used is in accordance with the relevant stress design criteria. They are basically screwed into position and riveted over to finish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

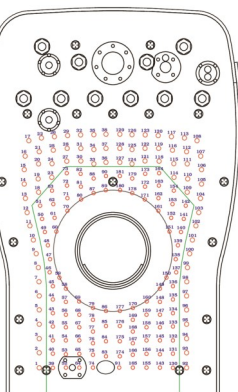
A combination of copper and rigid steel stays. We are renewing all throatplate stays, backhead stays, crown stays and a percentage of the side wrapper plate stays. The stays within the



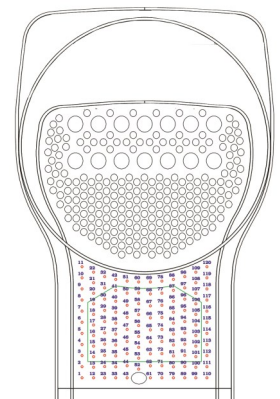
**Cross section of firebox**  
Side view showing crown stays and nuts (in red). 174 stays are required to

## 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](http://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!**



## **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 with 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, Old Chilmington Oast, Chilmington Green, Ashford, Kent TN23 3DP**