



Newsletter

Keeping Shareholders Informed



Issue 11

Spring 2021

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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The power of water

Continuing our special report on the manufacture of our 'missing' side rods

All pictures by kind permission of SCISS Ltd, Staplehurst.



Here you can see the water jet in action, cutting along the side of the billet.



First to be cut — the holes for the crank pins!

FOLLOWING on from the last newsletter which explained the forging and pressing of the billets for the connecting rods at Sommers Forge, in the West Midlands, this article is about the next step in the process; water jet cutting before final profiling.

The metal billets have been sent to SCISS Ltd, a waterjet cutting service based in Staplehurst, Kent since 1999. The Company will be using (for readers who like this sort of thing) an *Omax Waterjet Machining Center*, which is ideal for profile cutting an extensive range of materials, getting the maximum material yield with minimal waste, and has a maximum cutting envelope of 2500mm x 1250mm, with a standard tolerance of +/- 0.127mm and a positional accuracy of 0.025mm – phew!

Cutting is also virtually burr free, with no induced stresses and free from heat affected zones.

4253 Rods Manufacture *continued*



The shape of the rod begins to appear on the water cutting bed.



The billet lying on the now-drained cutting bed after the side cuts have been made.

The rods will now be sent to Inca Geometric Ltd, based in Chartham, Canterbury, for final profile machining. Hopefully, we will be able to give shareholders an update and pictures on the machining process at Inca in the next newsletter. *Kelvin Williams*



... and there it is! The first of the two rods awaiting collection, to be transported to Inca Geometric of Chartham for final machining. Just imagine how much work, effort and skill would have gone into making a rod like this at Swindon in 1917!

4253 What Have You Been Doing? Lockdown 3

Shareholder Max Dunstone sent in these pictures and says: "I don't know what all the fuss is about with the 4253 side rods, I put mine on in about 40 minutes! Maybe it's got something to do with the gauge?"

... and here are pictures of his layout with 4253 and his railcar in all its glory!



Max's model railway in '0' gauge keeps him busy during lockdown.

Max says: "It is known as the Oakburton Branch (not quite Ashburton!) and is based on 1930's GWR in the West country. Dick Dickson and I started building it over 30 years ago and set out to be as realistic as possible, with full signalling and interlocking. The locomotives have increased steadily over the years, but the original five locos were built from brass kits by Dick and I on our dining room table. Dick actually learnt to drive a loco on my 0 gauge! You may be able to see that the dairy is owned by Dunstone and Dickson!"



Tim Coles has also sent in these pictures of his superb locos and says:

"Glad to hear that you had SCISS in Staplehurst cut the 4253 coupling rods. On a rather smaller scale, I've used SCISS a lot over the past couple of decades to produce many parts for my 5 inch gauge working model of the gas turbine locomotive 'GT3', and for my pair of 7¼ inch gauge 'Jinty' tanks. Chris Kilpatrick and the team at SCISS give excellent service, often turning round parts in just a few days. The turbine loco won a gold medal at the 2012 ME exhibition. It has a two-shaft engine, very much like the prototype, with the gas generator running up to 160 K RPM, under FADEC control.

"The tank engines are a little more conventional. All my rods, coupling and connecting, were cut by SCISS. I bolted them to a large block of mild steel on the mill, and used a woodruff cutter to produce the flute. You are going to need quite a hefty woodruff cutter for yours!"



4253 What Have You Been Doing? *Lockdown 3 Continued*



Kelvin Williams has also been kept busy painting - and not only pictures. Apart from doing a regular security patrol around the Rolvenden site during lockdowns, he's managed to find time to create some rather nice artworks. All his works can be seen at the National Gallery when restrictions are eased!

Also in Kelvin's repertoire, and further occupying his time, is painting furniture to give a "shabby chic look". Will his talents never end, we ask?



Before.



After.



When Jerry Preston-Ladd, a 4253 director, isn't working on our loco, he is busy (lockdown or no lockdown!) with a range of classic car restorations and repairs.

Jerry is a Jaguar expert, particularly with the E-Type model, which sees him receiving a steady stream of cars arriving at his workshop for restoration or repair.



A beautiful E-Type ready for return to its owner, after much work by Jerry.



Another one arrives in need of love, attention . . . and no doubt much money!

4253 Boiler Progress

All pictures in our Boiler Progress reports are kindly supplied by HBSS, Liverpool.

BOILER progress continues unabated, although there has been a slight delay in getting the ‘coded’ welder in to do the necessary regulation welding.

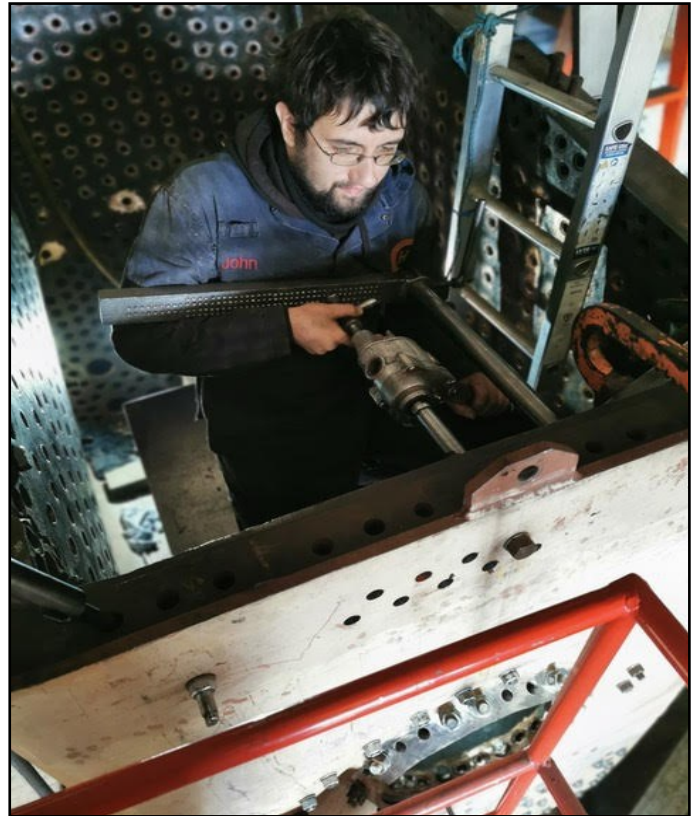
This has now all been passed by the boiler inspector and checked for any imperfections. As the boiler is potentially a bomb on wheels (with a working pressure of 200lbs per square inch), things have to be spot on.

The pictures show rivet holes beginning to appear in the plate work. The fire hole has been drilled, reamed and is ready for riveting with the backhead also welded and passed, so things are really beginning to come together.

The loco’s foundation ring is the original that came with our loco and after some building up with weld here and there, was perfectly good to reuse and was well worth saving.



A good shot of the new backhead foundation ring holes at the top and the fire box hole plate work, temporarily held with bolts and ready to rivet. *I think there might be someone inside the firebox - spot the four fingers!*



John passes the drill through the foundation ring to drill the backhead plate, using the existing holes as a guide. It looks like he needs to hang on to that drill!



All foundation ring rivet holes are now completed around the throat plate, seen at the top right-hand corner of the fire box. The square section of the original foundation ring can be seen top right.

4253 Boiler Progress *Continued*

Keeping the existing foundation ring, also conveniently provides a guide for the many rivet holes required in the front, back and side plate work to keep it all in place.

Initially, they are being drilled through the throat plate and backhead, with the two side wrappers of the boiler being fitted and drilled next. As a point of interest, the foundation ring isn't a proper 'ring' at all - it's oblong with rounded corners and



slopes downwards on its long side. The ashpan will eventually attach to the ring.

HBBS have also been busy machining the back-head 'pads', shown in the picture above.

These rather heavy looking items allow for a clean and accurate surface for mounting gauges etc in the cab. They will be drilled and tapped to take studs, then welded to the backhead in due course.

4253 ANNUAL GENERAL MEETING 2021

REMINDER

*As announced in the last newsletter,
the AGM will hopefully be held at a later date in the year,
when Covid restrictions allow.*

Further information will follow on the situation as soon as a date is arranged.

Stay With Us!



Boiler Stays Appeal



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. Unfortunately, Covid-19 arrived almost immediately thereafter and, as a result, we have been unable to undertake any of our usual fundraising activities. Therefore, we now need as much financial help as possible to keep 4253 on schedule and, accordingly, have launched this sponsorship scheme.

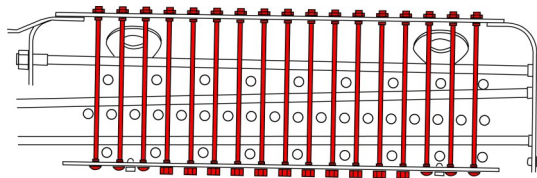
The Layman's Guide to Boiler Stays

Of all the components used in the construction of a locomotive boiler, the humble stay is probably the most important. The function of our 'Stay Sets' is to support the crown of the firebox. A stay set is a collection of stays and nuts that are fitted at each end of the firebox, between the crown and the side plates. The stays are braced together by a massive pre-stressed steel plate (the crown) and are secured with the crown nuts. Outwardly they have a neat, innocent-looking domed appearance - inwardly they press against the structural forest. About 70% of the 4253 firebox stays are due to be renewed and installed by our contractors at HBSS, Liverpool - all we have to do is supply them!

HURRY!
Stay and Stay Sets are still available — but going fast.
Buy yours now, while 'stocks' last!

That's where you come in!

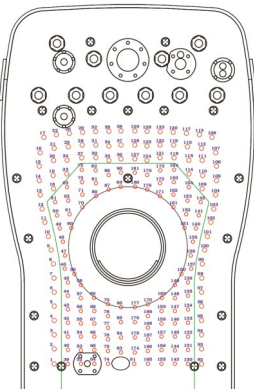
Firebox wrappers
A combination of copper and rigid steel stays. We are renewing all throatplate stays, backhead stays, crown stays and a percentage of the side wrapper plate stays. The stays within the yellow shaded area require replacing.



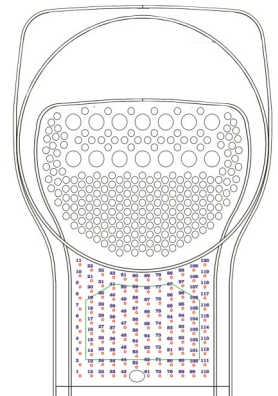
Cross section of firebox
Side view showing crown stays and nuts (in red). 174 stays are required to complete the task.

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 bankers 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

5668 Water Tanks Progress



This is a really good shot showing the insides of the driver's side water tank. The upright 'baffles' not only strengthen the tank but also act to stop the water surging to and fro as the locomotive moves or stops. It's a surprisingly complicated design, which allows for every last gallon of water to be carried by the locomotive.

AS you can see from the picture above, a lot of progress has been made on the first of the two tanks for 5668. For the benefit of new shareholders, after the acquisition of 4253, 5668 was part of a subsequent deal to acquire many of the parts that 4253 was missing.

The original plan was to complete 4253 first and then start on 5668. Because the boiler went up to HBSS in Liverpool at the start of 2020, it left a lot of our team of volunteers standing around twiddling their thumbs with not much to do. So, at the AGM it was agreed that a start be made on the main tanks for 5668 to utilise the spare labour, while we await the return of the boiler.

Unfortunately 5668 is in no better shape than 4253! Not only that, someone had previously taken the tanks off and cut them up, which didn't help with the construction of the new ones. Fortunately we did manage to rescue the cut up tank sections and have since used some angle sections and many other parts as patterns.

GWR designed these tanks to carry the maximum amount of water possible which results in a very complicated shape indeed. We are now awaiting delivery of the new side section to complete the platework. Once that is fitted and we are happy with everything, the whole tank will then have to be dismantled and rebuilt using a special modern-day mastic to ensure the tank is watertight and then riveted together.

We will bring you a further report when the riveting begins on the seemingly endless number of holes.



Our follow-on project! 5668, seen here at Rolvenden yard, is a GWR 0-6-2T. It was built in 1926 and spent its life hauling both freight and passenger trains.

Locomotive buffer moves to St Mildred's Church, Tenterden



Volunteers from 4253 were more than happy to restore an old locomotive buffer for the local church. Canon Reverend Lindsay Hammond of St Mildred's, seen here next to the restored buffer, wanted something that would reflect the historical links and closeness of the Kent & East Sussex Railway and the local church in the heart of Tenterden. The buffer will be installed inside the church ready for Easter, together with a card reader which will enable visitors and parishioners to contribute to church funds. If you visit the church, please look out for this excellent example of locomotive engineering and make a donation.

Record breaking drill bit breaking!



One of our regular volunteer 'engineers' Dick Weekes, broke a drill bit some time back and was nicknamed the '***Drill Destroyer Dick***'.

So, not wishing to draw too much attention to another one of our regular volunteers, co-editor **KELVIN WILLIAMS** has gone one better, by breaking the same drill bit not once, but twice in the space of a couple of hours!!

Suggested Kelvin nicknames to:
gwr4253news@gmail.com

A 4253 mask is for life - not just for lockdown!

4253 specially commissioned Face Masks



These can be used as general face coverings for dust/allergies and also to aid in complying with current Government Covid-19 measures.

Made to last from triple layered cotton for easy care and hand-made in Kent.

Available in: **4253 Red**, **4253 Black**, **4253 Blue** and **4253 Green**

All individually packed. Availability subject to stock.

Priced at £5.25 + 75p postage each.

Order yours today from our online shop at www.4253.co.uk

Colours may appear slightly different from images above, due to photographic limitations.

4253 Pen and Torch Set



This superb gift set comes in a presentation box and includes a 4253 pen and LED torch with key ring.

***Priced at just £6.00
including FREE p&p***

**Order yours today from our online shop at
www.4253.co.uk**

Covid-19 arrangements at Rolvenden and future post-lockdown 4253 visits to Rolvenden

Rolvenden Station and Rolvenden Works are currently closed to the public under current lockdown Covid-19 government rules.

Unfortunately there is no public access at the moment.

If you wish to visit us in the future, it is essential you please make prior arrangements by emailing: gwr4253@gmail.com