4253 Supporter

Newsletter

Keeping Shareholders Informed

Issue 21 **Summer 2023**

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**

As promised, here is the result from the shareholders' vote of 17th April to choose the colour, lining and lettering of 4253 - which gave a clear majority:

Green with GWR Lining and 'GREAT WESTERN' on the tanks.

Total number of votes cast: 168

A1 = (Mid-Chrome green, fully lined with GWR on tanks) = ***12 votes***

A2 = (Mid-Chrome green, fully lined with GREAT WESTERN on tanks) = ***68***

A3 = (Mid-Chrome green, with GWR roundel logo on tanks) = ***7***

B1 = (Mid-Chrome green, unlined with GWR on tanks) = ***3***

B2 = (Mid-Chrome green, unlined with GREAT WESTERN on tanks) = ***47***

B3 = (Mid-Chrome green, unlined with GWR roundel logo on tanks) = ***9***

C = (BR black with lion logo on tanks) = ***22***

4253 Lining the Loco

Is it Matt Green or Gloss Green?

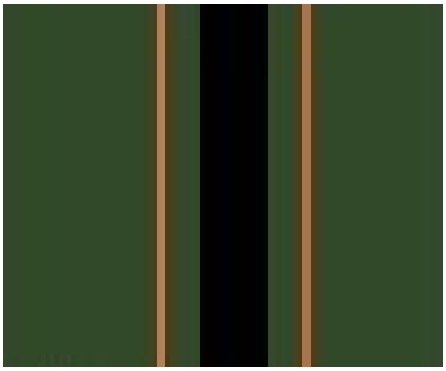
Here we see an appropriately named Matt Green applying lining to the gloss green of our loco — it's not the loco that's matt green, it's Matt that's Matt Green, or is it the loco? *No, hang on* . . . it is actually Matt Green . . .

We would like to send our grateful thanks to Matt for all his hard work and time spent on the lining of 4253. Many thanks Matt.

Matt (*left*) starts the very time-consuming marking out and painting of the lining.

The lining will appear on the bunker, tanks, cab and boiler cladding.

A trial section completed (*below*).



A closeup of the standard GWR gold and black lining, as it will appear on the loco.

Oh, and a red number plate too?

4253 Painting the loco

With the tanks and cab off the loco awaiting the boiler's return, it was an opportunity to give it another coat of paint. A great many hours over the last couple of months have been spent cleaning and rubbing down everything and giving all surfaces a coat of undercoat and shiny new gloss paint.

First wheel done, nine to do!

Our youngest volunteer Jake, rubbing down the bunker for another coat of paint.

The bunker primed, flattened and ready for the first top coat. Painting round all the hundreds of rivets is proving a real challenge!

4253 Painting the loco *continued*

This picture (*right*), taken from inside the bunker, shows all the red paint inside the frames.
This has now all been given another coat by our volunteer Dave — he seems to have spent weeks under the loco and only appearing occasionally for his tea!

This artist's impression (*below*), gives an idea how the tanks on the loco will eventually look, as per the shareholders' vote (i.e. green, fully lined with Great Western spelt out).

The letter spacing of 'Great Western' will be increased on the finished tanks according to GWR original specification.

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

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

4253 GWR Swindon colour spec. 1947

Adding to the already contenscious issue of GWR livery colours, we reproduce below the original Swindon specification documents of 1947 for locomotive engines and tenders, which we think make interesting reading. The documents are from a painter foreman who worked at the Swindon Works.

We wish to thank Andy Williams of the Severn Valley Railway for kindly supplying the documents.

Chief Mechanical Engineer's Dept.,
G.W.R.,
SWINDON.

Tuesday, 1st July, 1947

PAINTING OF LOCOMOTIVE ENGINES AND TENDERS

For Notes on Compositions of Paints, Varnish and Stopping, see Appendix.

PRIMING PAINT (one coat)	All steel and iron work except bright parts and boiler.
STOPPING	Making good all bad places after priming.
BLACK OIL PAINT AND VARNISH MIXTURE (two coats)	Reversing rod. Frames. Wheels (new engines only). Ground of number plates around figures.
BLACK OIL PAINT (two coats) VARNISH (one coat)	Hanging bars. Step plates. Ground of name plates around letters. Cylinder cleating.
PRIMING PAINT OR TAR-BASE PAINT (one coat)	Boiler Complete, outside.
TAR-BASE PAINT (one coat)	Wheels on repaired engines.
SMOKESTACK BLACK (two coats)	Smokebox wrapper, door and fittings, hand-rail, chimney (except copper cap), saddle and outside steam pipe casings.
SMOKESTACK BLACK (one coat)	Splasher tops. Cab roof (outside). Lamp irons. Buffer plungers and couplings. Inside of tool boxes. Four-cone ejector and pipe. Tender coal space and fittings. Side-tank tops and fittings. Bunker coal space, shelf and front plate. Firebox back. Footplate. All parts below footplate such as brake work, pipes, sand and cylinder cock gear, etc.

ENGINE GREEN PAINT (two coats) VARNISH (two coats)	Boiler cleating, handrails and brackets. Clackbox covers. Dome cover. Safety valve casing (except on engines having chimneys fitted with polished copper caps). Cab sides, front and back (inside and outside). Cab roof (inside). Splasher fronts. Lower part of nameplates between brass beading and splasher. Tank sides and fronts (except on pannier tanks finishing at front of smokebox, in which case the fronts are painted with smokestack black). Tops of pannier and saddle tanks and fittings. Toolboxes (outside). Tender tank sides and back (given a coat of grey priming paint before the green is applied).
CHINESE RED PAINT (two coats) VARNISH (one coat)	Buffer plates and buffer cases.
VENETIAN RED PAINT (one coat)	All plates inside frames between smokebox and firebox. Eccentric rods. Crank axle. Regulator handle (except hand grip).
POLISHED BRASS	Safety valve cover on engines having chimneys with polished copper caps. Splasher beadings. Vertical cab beading. Number plate border and figure faces. Nameplate letter faces and beadings. Cab window frames.
POLISHED COPPER	Chimney cap
BRIGHT STEEL	Connecting and coupling rods. Motion details. Handles in cab. Vertical handrails on cab and tender.

LININGS, ENGINE

Only the following classes:-

4000, "Stars"
4073, "Castles"
6000, "Kings"
1000, "Counties"
2900, "Saints"
4901, "Halls"

Cab sides.
½" orange line 3" from cab beading, following contour of cab sides; 1" black line ½" from orange line and another ½" orange line ½" beyond black line.
Note:- On the "County" class the lower cab lines commence at 6" above footplate to coincide with tender lining.

Number plates.
½" orange line ½" from polished border.

Splasher fronts.
½" black line from footplate and around splasher with ½" orange line ½" away from black line.

Boiler cleating bands
1" black line with ½" orange line each side and ½" away.

Hanging bars and frames.
½" orange line ½" from edge.

Buffer plates. Name plates (lower part).
Edged with ½" black line and ½" orange line ½" away from black line.

Outside cylinder cleating.
Two ½" orange lines 1" apart, set 1.½" in from front and back cleating covers, forming panel with base line about 4" up from bottom, and top line 4" down from hanging bar.

Note:- Black lines to be painted with Black Oil Paint.

LININGS, TENDER FOR LINED ENGINES.

4000 gallon tender with flush bottom tank and flared sides.

Tank sides and back
Outside ½" orange line, 7" from black beading at top and sides, 4" up from top edge of bottom angle iron at footplate, forming panels with 3" radii at corners. 1" black line ½" from orange line and another ½" orange line ½" inside black line.
No lining on top coal plates.

4000 gallon tender with flush bottom tank and straight sides.

Tank sides (including coal plates) and back.
Outside ½" orange line 8" from black beading and top of footplate, following contour of plates. 1" black line ½" from orange line and another ½" orange line ½" inside black line.

3500 gallon tender with well bottom tank.

Tank sides and back.
Outside ½" orange line 6" from black beading at top and sides, 3" up from top edge of bottom angle iron at footplate, forming panels with 3" radii at corners. 1" black line ½" from orange line and another ½" orange line ½" inside black line.

Coal plates.
Outside ½" orange line 3" from black beading following contour of plates. 1" black line ½" from orange line and another ½" orange line ½" inside black line.

Note:- Beading around lined tenders painted black. Hanging bars, frames and buffer plates lined same as engine. Black lines to be painted with Black Oil Paint.

LETTERING (Transfers)

For Tenders of named engines.
9" letters G.W. with centres 7'-0" apart and with Coat of Arms between.

For all other tenders and all tank engines.
9" letters G.W.R. with centres 3'-6" apart.

Note:- The letters and Coat of Arms to be arranged as nearly as possible in the centre of the tender or tank sides but to be clear of rivet heads.

4253 GWR Swindon colour spec. *continued*

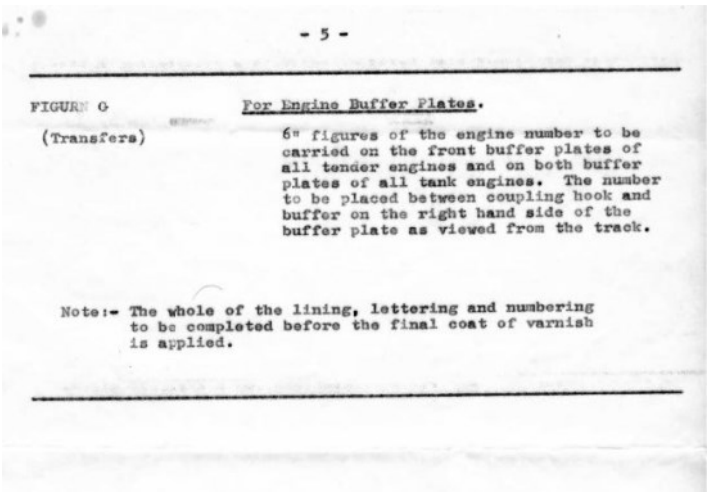


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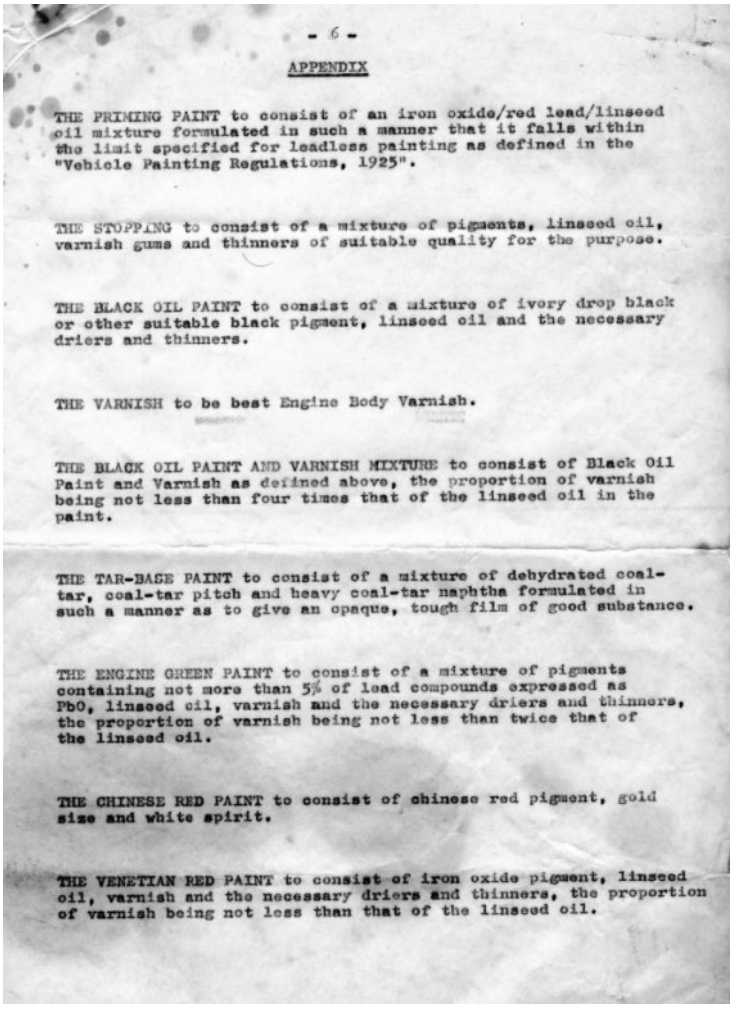
FIGURE 6 (Transfers) — For Engine Buffer Plates.

6" figures of the engine number to be carried on the front buffer plates of all tender engines and on both buffer plates of all tank engines. The number to be placed between coupling hook and buffer on the right hand side of the buffer plate as viewed from the track.

Note:- The whole of the lining, lettering and numbering to be completed before the final coat of varnish is applied.



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APPENDIX

THE PRIMING PAINT to consist of an iron oxide/red lead/linseed oil mixture formulated in such a manner that it falls within the limit specified for leadless painting as defined in the "Vehicle Painting Regulations, 1925".

THE STOPPING to consist of a mixture of pigments, linseed oil, varnish gums and thinners of suitable quality for the purpose.

THE BLACK OIL PAINT to consist of a mixture of ivory drop black or other suitable black pigment, linseed oil and the necessary driers and thinners.

THE VARNISH to be best Engine Body Varnish.

THE BLACK OIL PAINT AND VARNISH MIXTURE to consist of Black Oil Paint and Varnish as defined above, the proportion of varnish being not less than four times that of the linseed oil in the paint.

THE TAR-BASE PAINT to consist of a mixture of dehydrated coal-tar, coal-tar pitch and heavy coal-tar naphtha formulated in such a manner as to give an opaque, tough film of good substance.

THE ENGINE GREEN PAINT to consist of a mixture of pigments containing not more than 5% of lead compounds expressed as PbO, linseed oil, varnish and the necessary driers and thinners, the proportion of varnish being not less than twice that of the linseed oil.

THE CHINESE RED PAINT to consist of chinese red pigment, gold size and white spirit.

THE VENETIAN RED PAINT to consist of iron oxide pigment, linseed oil, varnish and the necessary driers and thinners, the proportion of varnish being not less than that of the linseed oil.

Before the advent of ‘modern’ synthetic gloss paints, varnish and linseed oil were major components of paints and finishes as can be seen from the last page, which states the required constituent parts. To get a high gloss finish you had to use varnish.

Having applied the colour base coat, you then applied perhaps up to 4 to 5 coats (in the early days) of varnish, which then had the effect of slightly changing the original colour. Varnishes were all made from natural materials and had a dark brown shade, so this affected the final appearance of the base colour.

The whole process of painting a loco looks to have been extremely labour intensive with a lot of skill and knowledge involved.

As for the specification of what parts of a 1947 loco are painted and in what colour . . . we’ll leave that for your deliberation!

4253 All That Brass — Part 2

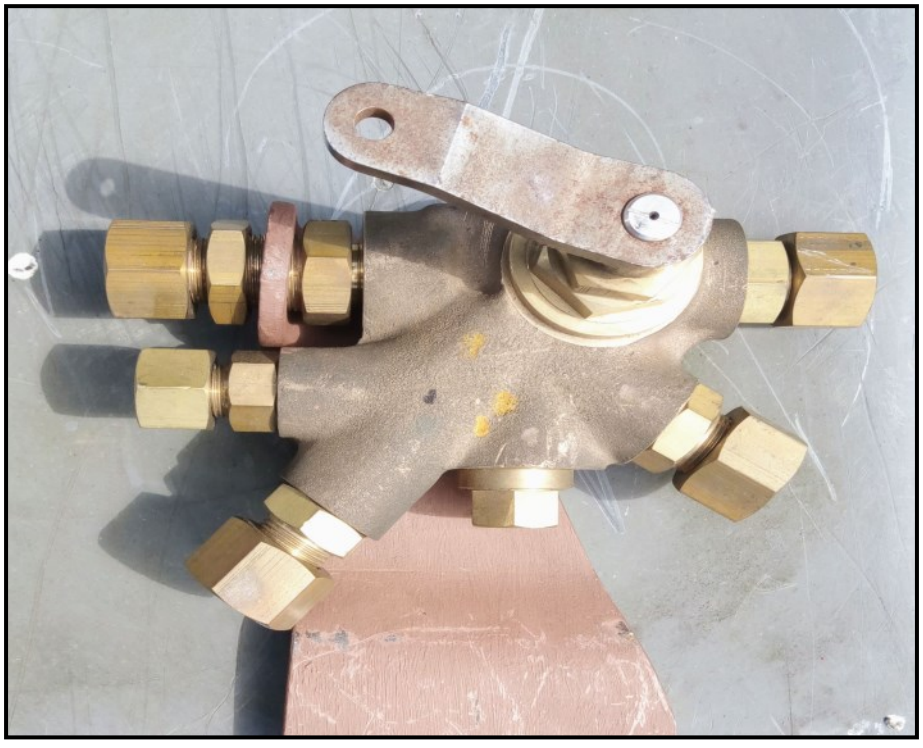
Photo from GWSR.

As promised in *All That Brass —Part 1* back in 2022, here is another 'bitesize' article regarding the shiny bits that you will find in the locomotive cab.

We began with the Hydrostatic Lubricator Condensing Coil and the Hydrostatic Lubricator, and now we continue with this system.

The Jockey Valve

When we talked about the lubrication system in part one, I omitted to mention the Jockey Valve. This sits between the condensing coil and the hydrostatic lubricator and is controlled by the action of the regulator (*which by the way, works the same as your vehicle accelerator*). You can just see it under the regulator (big red handle) in the cab photo (*above*).



The jockey valve controls the steam delivered to the hydrostatic lubricator. The more the regulator is opened, the more the jockey valve increases the amount of steam. The valve not only controls the steam, but also only allows the oil to flow to the hydrostatic lubricator when the regulator is open.

This does give us a problem though. What happens when the loco is going along but the steam is shut off by the driver (coasting), such as reducing speed on entering a station for example? This would mean that no oil flows — and that is not great for the valves and cylinders.

Well, the driver has a solution to this. The regulator has what feels like slack in the mechanism. The handle moves a bit and then 'bites' to open the regulator valve. When locos want to coast, the driver will shut the regulator lever right down but then lift it up again just slightly. This does not open the regulator valve but is enough movement to open the jockey valve.

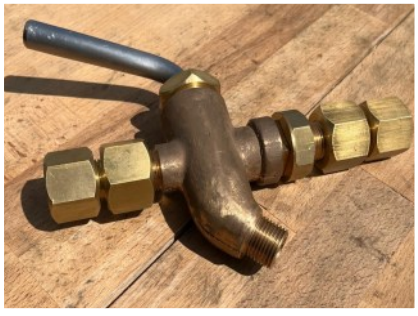
Splitter Valve

The next item (*right*) is something you will not see, as it is in the smoke box, but is also part of the hydrostatic lubrication system. It splits the delivery of the atomised oil in steam to the cylinders and valve chests on each side of the locomotive.

Shut Off Valves

The next two items are shut off valves. The one on the left is used to control the flow of the atomised oil in steam as it leaves the hydrostatic lubricator.

The valve on the right is fitted in the 'slacker' pipe (or more commonly known as the p*** pipe!) that is used to wash down the cab floor.
The reason for calling it the slacker pipe is that the general term for coal dust is 'slack'.



Blowdown Valve

This impressive and heavy item, is the Blowdown Valve. Its function when opened, is to release very high-pressure water from the boiler that will effectively clear sludge and other impurities that are formed during steam-boiler operation.

Masons Valve

Also visible in the top-left section of the cab photo is the Masons Valve. This regulates the amount of steam that is provided to heat the coaches.

Note: This item and the accompanying steam heat pipework did not exist on 4253 during its working life as a freight locomotive and had to be fitted new to accommodate passenger coaches.

Thanks to Brian Heritage for making both valves.

4253 Richard (Dick) Beckett

Above: Dick on his beloved 'Marcia' steam locomotive at Bodiam, on the K&ESR.

It is with great sadness that we report the death of Dick Beckett, after a short illness.

Dick was a founder member of the 4253 Locomotive Company and was instrumental in initially finding and bringing 4253 to the attention of a small group of enthusiasts in 2011. The loco was at that time rusting quietly in a siding at Blaenavon, Wales and without Dick's enthusiasm (for what was then a complete basket case of a locomotive), our engine would not be in the state of fine repair that it is today.

Sadly Dick has not lived to see his dream of 4253 back in steam and chuffing down the line — but Dick's drive and enthusiasm towards the project will not be forgotten. We will all strive to finish the loco in his memory.

4253 Please Donate via our new QR code!

Our latest QR Code above, allows you to quickly and easily donate an amount of your choice.

Just scan this QR code with either your phone camera or QR app, to donate any amount of your choice towards the restoration of your loco.

Alternatively you can use this link:

https://pay.sumup.io/b2c/QOZ2ZVRN

Thank You!

Every £ counts towards the restoration of your locomotive.

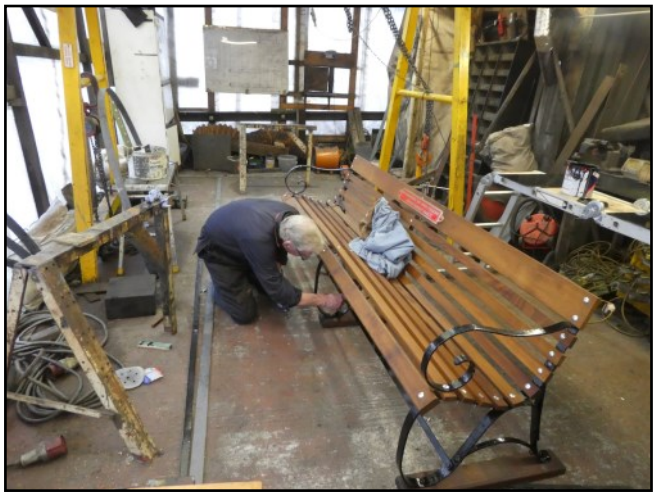
Don't forget, we are non-profit making, so every single penny goes towards getting 4253 back in steam.

4253 Dave ‘Rivet’ Dee memorial bench

When we restored the platform bench at Rolvenden Station a couple of years ago in memory of our colleague Dave Dee, we reused the existing slats of wood, but despite our best efforts to protect the old wood with fresh undercoats and top coats of new paint, it did not stand up very well to the hot sun, cold rain and snow.

After a collection among volunteers to purchase and have machined some proper mahogany, we have once again taken the bench apart, painted the iron work and replaced all the wood. The sign was also repainted by Pete while it was off.

With much discussion and testing behind him, volunteer Bob put endless coats of teak oil on the new bench slats and together with new coach bolts, we reassembled the bench. We’re hoping that it will now stand up to whatever the weather can throw at it in the years to come.



Bob puts the final touches to the bench.

He looks really chuffed with his wood work. Well done to all who helped with the project.

Remembering our late colleague.
A bit of a motley bunch, but this is the ultimate bench test, and in their dirty overalls too!
From left to right:
Dave, Kevin, Dai, George, Liam, Dan, Moff and Dick.

Charlie admires the newly planted flowers next to Dave’s bench.

Don't forget our website and online shop!

We're always open - 24/7 at:

www.4253.co.uk

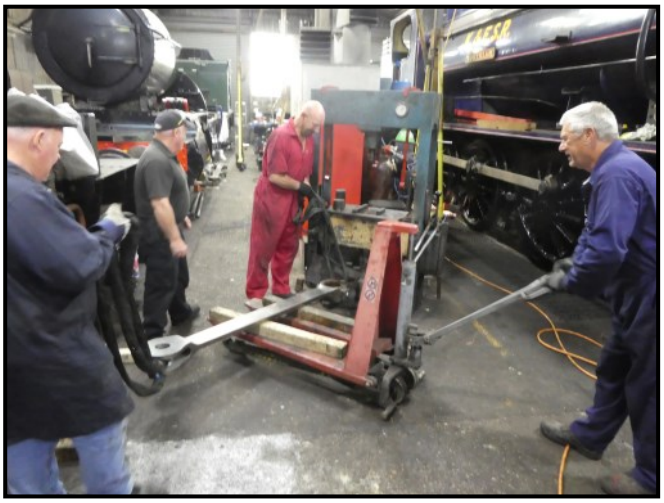
Find out how you can help with buying
Shares, Stays, Mugs, Plugs,
Donations and much more!
Also, see past Newsletters and the
weekly Facebook progress reports . . .

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

4253 Rods Progress

Progress on getting all the eight rods together, new bushes fitted, together with all the necessary fittings, has been a long and time consuming process. It's taken years, in fact! But, as you can see in the pictures below, everything is finally coming together. The loco is now jacked up just off the rails, so that each wheel can be rotated to get the journals to line up and enable each of the rods to be slid on. The precision between the journals, each individual rod bush and its partner rod is quite astonishing. All four are connected together on each side and everything is to within thousands of an inch.

An intermediate rod being manoeuvered by Chris, Kelvin and Bob.

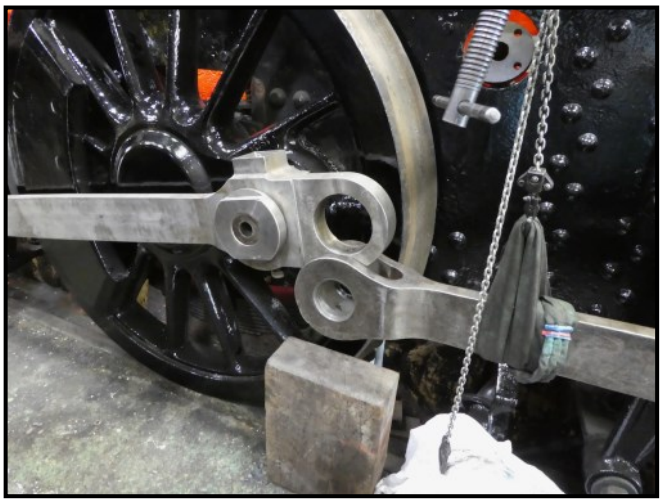


Jacking a rod up onto the hydraulic press for the next bush fitting. Graham, Kevin, Jerry and Kelvin.

Henry taking a 'shade' off one of the bushes that proved to be a little tight on the wheel journal.

The locomotive rod lifting team in action. In polite terms the rods are fairly heavy . . . to say the least!

Part way through a complicated process of fitting.



Not only do they have to fit on each wheel journal but also all join together with gradient pins!

4253 Rods Progress *continued*

A pair of side rods (*left*), finally in position on the fireman's side of the loco. They are seen here temporarily held in place for positioning with a combination of winches, straps and wooden blocks.

These are the gradient pins (*right*) that connect each intermediate rod with its neighbour. This picture shows the pins just after arriving back from being case hardened.

Come and join the 4253 friendly Sales and Tombola Team!

We are looking for a volunteer Events Co-Ordinator to run our fund raising events for this year.

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 oversite of what's happening and who's doing what.

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

Email Charlie: fog49@live.co.uk

4253 Boiler Report

Although the boiler has progressed nearly up to tube plate fitting stage and is almost completed, delays in getting the crown stays made and other necessary final components, have held things up. These are now very much cost sensitive and getting things made at a realistic price together with a quick turnround is causing problems. Money is obviously always an issue — but you cannot cut corners with a locomotive boiler!

Once the tube plate is fitted and riveted into place we should hopefully then be in a position to report to shareholders on tubing and testing the boiler which will be completed by HBSS Liverpool.

As soon as things move substantially forward we will let shareholders know via a special boiler report if necessary.

Once the boiler has passed its hydraulic test at HBSS it will then be sent back to us at Rolvenden for fitting into the loco.

The boiler was always going to be the biggest headache, and so it has proved. But we will do everything to try and speed up this last hurdle to get 4253 back in steam.

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.

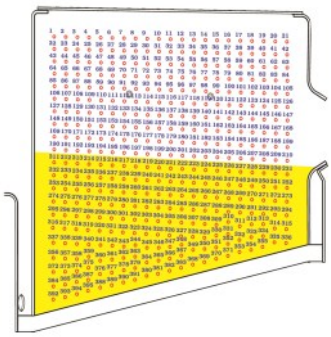
The Layman's Guide to Boiler Stays

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.

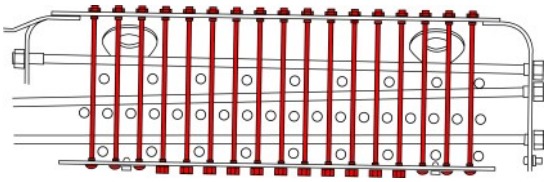
The stays are braced between the two in all these areas, strategically providing rigidity and flexibility to what is essentially a massive pressure vessel. The material used is in accordance with the relevant stress design criteria. They are basically screwed into position and riveted over to finish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

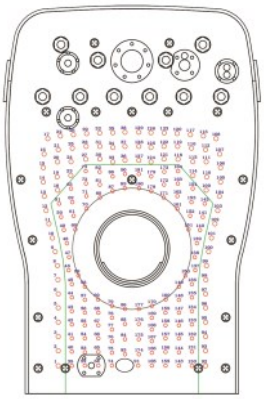


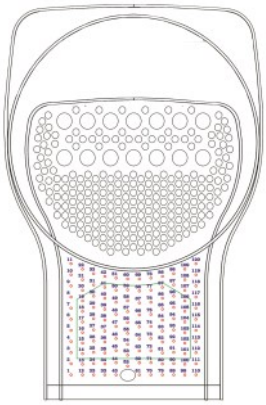
Cross section of firebox

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		412
Copper Stay	£35.00	£99.00	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!

4253
Locomotive Company Limited

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.