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# The Warrior

THE NEWSLETTER FROM THE LMS-PATRIOT PROJECT



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## **Editorial**

Welcome to Warrior 29, another bumper filled edition for you to enjoy.

We are delighted to announce first to you our Members that Simon Weston, CBE has been appointed as the first Patron of The LMS-Patriot Project. Simon who is a Falklands War veteran and tireless charity worker will be a fantastic ambassador for us in the future as we approach the 2018 commemorations. You can read more about Simon's appointment on page 17.

Also in this issue we are starting a debate on the livery that 'The Unknown Warrior' will first appear. Every current member will get one vote this year with the result announced later at the AGM on 12th November. This is sure to stir a few emotions so we have asked for a few opinions which you can read on pages 18-21, we encourage you to send in your views.

If you have not done so already, please book your tickets for what will hopefully be another fantastic Members' Day which will take place on Saturday 25th June at Llangollen. There will be a chance for you to see the progress of 'The Unknown Warrior' in the last 12 months. Please return the forms that we posted to you with the last Warrior, or telephone our Stafford office. Why not make a day of it and go on the Fish and Chip special 'The Patriot Plaice' in the evening as well?

Hope to see you at Members' Day, thank you for your continued support.

Andrew Laws, Editor

No. 45551 returns to Llangollen and is shunted into the shed by BR Standard 4MT 2-6-4T No. 80072.

## Chairman's Thoughts – May 2016

In my last 'Chairman's Thoughts' column I challenged our membership to increase the level of sponsorship of components for The Unknown Warrior. The results have been fantastic, with over £40,000 worth of components being sponsored between November 2015 and the end of March 2016. There is an updated list enclosed with this issue of The Warrior so please continue the good work - it is a great feeling to be able to point to a component and say 'I sponsored that'.

Our latest list of items for sponsorship include most of the outstanding brake gear. These consist of: Crossbeam and Crossbeam Bridle - £225 material, £1,000 machining. Pull Rod, £250 material and £750 machining, and Intermediate and Leading Pull Rods at £250 material and £1,000 machining. There are also a variety of nuts, pins and cotters for the brakegear at £70 each.

I also asked those who are not donors to consider signing standing orders for the remainder of the build period (December 2018). once again the results have been excellent with the numbers rising to 334 by the end of April. We are still some way short of our target of 500 (which is less than the P2 group have achieved in a much shorter timescale) - see the illustration on page 46 - so can I urge those of vou who have not done so vet to consider signing up for the remaining period? It is so important that we are able to forecast our income accurately so any way that we can strengthen our finances is very welcome.

You will see elsewhere that this year has been a record breaker with £351,000 raised in total. Additionally £16,000 has been raised in boiler loans. We estimate that we still need around £600,000 to complete the engine so we can't let up now the end is in sight.

Progress on the boiler is very encouraging with the doorplate now formed at Tyseley being followed shortly afterwards by the throatplate. These are the two most expensive single items remaining. Thereafter the work is more akin to that which an overhauled boiler will follow.

The big news this year has of course been the appearance of the engine as a 4-6-0, the first all new locomotive of this wheel arrangement to be produced in the UK since Standard 5 No. 73171 in 1957. I am not including the three GW locos, as the Saint, County and Grange incorporate a significant number of existing components. The chassis is also progressing well with many smaller items now being sourced. There then follows the not insubstantial task of putting all these onto the frames at Llangollen.

As I forecast in the last edition of The Warrior, No 45551 became a 4-6-0 ahead of our nearest rival, County of Glamorgan whose wheeling will be completed by 21st May. Exciting times!

Thank you for your continued support.

Kindest regards

David Bradshaw, Chairman

## Treasurer's Report

## Financial Update to Quarter 4 (31st March 2016)

by Neil Collinson, Treasurer

We have reached yet another year end and the figures are again pleasing, both for the quarter and for the year as a whole. This is being written in early May following reporting to the board at our meeting on 30th April. I will show the guarterly figures first with the full year's figures in brackets afterwards. Time and space means that I cannot show the previous quarter as a comparison. I also take the view that too many statistics are confusing and bore the reader.

Total Income for the period hit £100k for the second successive quarter including an expected £10k in Gift Aid (total for the year was £351k). Boiler loans totalled £4k (£16k) giving total receipts of £367k. These figures were enhanced by the sum of £25k being received in each of the last three quarters in company sponsorship. As a comparison, actual income for 2014/15 was just over £300k. There were a number of boiler loans and short term loans during the year which took the figure to £375k.

Membership income came to £10.169 (£34.251). there were 17 new members and three conversions to life membership in the quarter. Renewals of membership held up well for the year being 100% of budget. This is very encouraging and I personally think reflects the increasing confidence in the project.

#### **DONATIONS**

There were 28 new regular donors during the quarter. The total number of regular donors we have at the year-end will be reported elsewhere in this issue so I will refrain from giving this figure here. However, I will say that the average amount increased on the previous quarter by 24p and now stands at £15.59. It is worth quoting the quarterly amounts received from you, the members, for this vital area of our income, the only guaranteed income that we have.

£12,735	£13,180	£13,633	£15,271
Quarter 1	Quarter 2	Quarter 3	Quarter 4
to 30th	to 30th	to 31st	to 31st
June 2015	Sept. 2015	Dec. 2015	March 2016

The following tables break up the statistics and gives a comparative picture for the last two years. You will see a significant increase in the number of regular donors for the final two quarters of this last financial year.

2015/16 Donors			
	New Donors	Changed Donations	Lost Donors
Q1	8	4 (avg. £5.75)	2
Q2	10	10 (avg. £9.50)	7
Q3	24	8 (avg. £8.57)	3
Q4	28	3 (avg. £5.00)	9

Average overall monthly donation - £15.59

In comparison: 2014/15 Donors			
	New Donors	Changed Donations	Lost Donors
Q1	12	8 (avg. £3.63)	3
Q2	12	7 (avg. £6.14)	1
Q3	7	7 (avg. £9.57)	3
Q4	8	3 (avg. £10.00)	7
Average overall monthly donation - £15.16			

One off donations totalled £31k, (£121k for the year.) This figure includes the excellent response to the recent sponsorship appeals.

Expenditure on the locomotive was in excess of £86k for the quarter (£300k for the year.) It goes without saying that other expenses are kept to a bare minimum and were mainly within budget. More on this subject later! Total spend on the locomotive to the 31st March was £1.22m and £31k on the tender.

#### **ANCILLARY STATISTICS**

We maintained a healthy bank balance of £105k at the year end. Added to that, we are expecting

a VAT refund of £13k and Gift Aid of

£10k to be received by early May. However, this new financial year is going to be a very expensive one and will need careful managing. We need to continue to dig deep for victory.

Finally, I wish to clarify comments I made about volunteer mileage expenses in the last issue. The increase to 45p generated a couple which I responded individually. These were essentially about the amount being paid out which could be spent on the locomotive construction. Some others of you may have muttered under their breaths or grumbled to themselves but didn't put pen to paper or clatter the keyboard with an email to me.

Explanation. Although I cannot be specific, the majority of our volunteers who claim the mileage allowance donate the amount back (less any costs) e.g. fuel costs, as we do not expect anybody to be out of pocket when they give their free time for the benefit of the project. This

generates Gift Aid at 25% on the donation.

They also provide vatable fuel receipts upon which we claim back a proportion of the

> VAT they have paid. This and the increase in the amount to 45p with a proportionate increase in Gift Aid means we are in a

> > I remain. your hopefully continuing treasurer.

'Win Win' situation.

PS I am up for re-election this year - can't believe where the

of emails from members to last 3 years have gone! The graphic above shows the great progress made so far with just over £1.4 million raised, we thank all Members for their contributions so far and we now need to push hard to raise the outstanding £600,000 to complete your engine - The Unknown Warrior.

EUNDRAISING TARGET

The LMS-Patriot Project

## THE LMS-PATRIOT PROJECT 2016 AGM

This year's AGM will be at Crewe Heritage Centre on Saturday 12th November at 2.00pm. The perfect venue for members to gain an up-to-the-minute update on our progress in completing the building of the boiler. We will also be announcing the outcome of the livery vote, so make a note in your diary and be there!

## **ENGINEERING UPDATE**

by Kevin West and David Bradshaw

## FEBRUARY/MARCH/APRIL 2016

#### LOCOMOTIVE FRAME ASSEMBLY

Work continues on the construction of The Unknown Warrior at number of locations.

Following on from the fitting of the Bogie at Tyseley on 3rd February, work has continued on preparations to fit the Valve and Cylinder Liners.

Following successful machining of the Valve Liner castings they were finally shrunk into the cylinders on the morning of Friday 18th March. Each cylinder has a Valve Liner fitted at each end of the Valve Chest containing the steam ports machined into it. The liners are fitted precisely along the length to

ensure the steam ports are in the correct position in relation to the Valve Heads. A special jig had been manufactured to hold the liner and ensure it was slid into the Valve Chest to the correct depth.

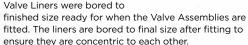


One of the Valve l iners in its positioning jig, ready to be placed in the liquid nitrogen.

valve chest. There was no such problem with our liners and the whole job was completed within a couple of hours. The hours of measuring, checking and precision machining had all paid off.

Once the locomotive had settled the distances for the steam port openings were measured and recorded ready for the assembly of the Valve Heads.

The following week the Valve Liners were bored to



The Cylinder Liner castings have proved more problematical with voids and cavities in the castings. We now hope to have three sound castings and the first two have been machined to finished size on the diameters and are due to have the ports machined. The final casting is due to be machined by the end of March.



Liners in position in the cylinder showing the positioning jig ensuring the liner is at

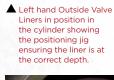


A Warming the right hand

gas torch.

Outside Cylinder with a

▲ In position with the iia removed





Looking through the right hand Valve Chest showing the Front and Rear iners in position. ALL PHOTOS ON PAGES 6 & 7 BY KEVIN WEST



Each liner is machined to have a 0.002"-0.003" interference fit in the valve chest. The cylinder is warmed with a gas torch and the liner is immersed into a tank of liquid nitrogen which brings the liner down to -196°C. As the liner cools it shrinks slightly, nominally by 0.0018" for every inch in diameter, so a total of 0.018" for our 10" diameter liners. The cylinder block will also expand slightly which gives an easy slide fit into the bore for the chilled liner.

Once in position the liner will return to room temperature, expanding back and gripping inside the cylinder block. Normally this takes a couple of minutes before the liner 'grabs' onto the cylinder block, so speed is of the essence in case there is a problem with the fit and correct positioning in the

Following the Valve Liner boring The Unknown Warrior returned to Llangollen for the first time as a 4-6-0 locomotive on Thursday 24th March. A welcoming committee of project members were there to see it unloaded from the road transporter, followed by being shunted from the reception road into the shed by BR Standard 4MT 2-6-4T No. 80072, the first time it has been moved by steam.



▲ The Unknown Warrior's Bogie wheels touch Llangollen metals on 24th March 2016. PHOTO: KEVIN WEST



▲ The Chief Engineer gives a helping shove to get The Unknown Warrior off the final few inches of ramp at Llangollen. PHOTO: COLIN HALL

To see a short video of 45551 being shunted by 80072 try this link to the projects' Facebook page:

## https://www.facebook.com/The-LMS-Patriot-Project-260229588683/videos

The replacement Stretcher 4 casting has been returned to the machinist for some remedial repairs to some dimensional errors. Corrective work has been agreed and it is due back at Llangollen for fitting to the Frame Assembly towards the end of April.

The locomotive has been stabled in front of the Tender Frames in the shed at Llangollen, where it will now stay until completion. The locomotive is due to be lifted off the Driving Wheels and Bogie to enable access to the chassis for the next stages of the build.



▲ Chief Engineer Kevin West gives a smile after guiding 80072 to buffer up to 45551 at Llangollen. PHOTO: GAVIN SHELL



80072 gently moves 45551 through Llangollen yard.

PHOTO: GAVIN SHELL



▲ 45551 safely back in the shed at Llangollen, receives the attention of the welcoming committee, while work continues on the Tender Frames by our volunteer gang. PHOTO: KEVIN WEST

Once the frames are levelled and set up on the stands back in the workshop work will start on assembling parts to hand to the Frame Assembly. These include the Sandboxes and Reverser Shaft Trunnions.

#### **BRAKE SYSTEM AND LUBRICATION SYSTEM**

Design work and drawings have been finished for the locomotive Brake Gear. The Crossbeams, Pull Rods, Adjuster, plus associated Pins, Bushes and Cotters have been sent out for quotation and orders placed for manufacture.

The design of the Brake Cross Shaft under the cab is being investigated to see if it can be manufactured as a welded up assembly rather than the original casting. Refurbishment of the Locomotive and Tender Brake Cylinders from 8F 48518 continues at Harco Engineering.

Design work focus on the chassis has now returned to the lubrication system. The overhaul of the large, 16 feed, Mechanical Lubricator at the Great Central Railway, Loughborough is almost complete. The smaller eight-feed unit will move to Loughborough for similar attention in May.

Design work for the lubrication pipework runs, fittings and clips continues.

#### **PISTONS, VALVES AND MOTION**

Work is progressing on the procurement and manufacture of the remaining Inside Valve Gear parts. The Eccentric for the Inside Motion along with all the associated bolts, nuts and cotters, is at Llangollen after machining at Harco ready to fit to the Crank Axle. The Eccentric Sheaf Halves have been machined as a matched pair up to the point where the two halves are split by CMS Cepcor. The associated pins are also finished and machined.

Llangollen Railway Engineering are continuing the manufacture of the Coupling Rod Bushes and Brasses. The pins, nuts and other parts required for the Big End assembly have been finished by CMS Cepcor.



▲ The Eccentric Sheaf Halves at CMS Cepcor waiting to be split. PHOTO: KEVIN WEST

CAD work and drawings for the Inside Eccentric Rod has been completed and the order has been placed with CMS Cepcor.

Drawings to obtain quotations to machine the Big End Bearing castings are being finalised.

The new Inside Crosshead casting was moved to Tyseley, but will now move to CMS Cepcor for initial machining before returning to Tyseley for finishing.

Drawings for the Gland and Stuffing Box parts for the Piston Rods and Valve Rods are in progress to enable manufacture.

The Piston and Valve Head castings are at Tyseley ready for machining. Tyseley will also produce the Piston and Valve Rods to supply complete assemblies ready to fit to the locomotive.

Replacement Cylinder Relief Valve Body castings are still awaited from the foundry. Once to hand they will be sent for machining.

We await delivery of the castings for the Valve Spring Holders. The valves will be ordered next.

#### **BOGIE**

The completed Bogie is at present under the locomotive. Once the chassis is taken off its wheels the bogie will be stored in the works and will have the attention of our volunteer painting gang, particularly on the wheels to bring them up to the standard achieved on the Driving Wheels. The Bogie is expected to be available for inspection on our Members' Day in June.



▲ The completed Bogie Frame at Tyseley Locomotive Works.

PHOTO: KEVIN WEST

#### **BOILER**

The Firebox Doorplate is being formed at Tyseley Locomotive Works during the second week of April. The Boiler Plate is bolted to a large cast forming block which is the shape of the inside of the finished plate. A section of the plate is heated with gas torches until it is red hot and then hammered with large wooden mallets against the former. The plate soon loses the heat, so the process has to be repeated many times to produce the finished plate. Our Doorplate will take three days to form and consume over £3.000 worth of gas.



▲ The Outer Firebox Doorplate blank bolted to the former block at Tyseley Locomotive Works.



▲ This view shows the top corners have been formed with just the right hand flange waiting to be knocked down. The row of gas bottle in the background illustrates just how much is needed for the plate forming.



▲ The Outer Firebox Doorplate top corners being heated before the next stage to hammer it down over the former.



▲ This view from the bottom shows the left flange fully formed.

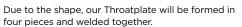
The four cast forming blocks for the Outer foundry on 11th April. After a little preparation work it is expected the plate will be formed by the end of The Throatplate is the most complicated plate in the

Throatplate were delivered to Tyseley from the April ready for delivery to LNWR Heritage Crewe. boiler assembly. It forms the joint from the front of the basically rectangular firebox to the round barrel section. An added complication is that the front of the firebox is not straight, it has a step of 8" below the barrel.



CAD image of the Outer Throatplate showing the complicated form.

CAD IMAGE: KEVIN WEST

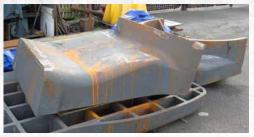


The Boiler Barrel sections have been assembled at LNWR Heritage, Crewe and are being drilled ready for riveting.



▲ The formers are negative shapes for either inside or outside of the desired shape. This view shows the back of the block that will be used to create the flange for the barrel joint in the circular cut out.

ALL PHOTOS: KEVIN WEST

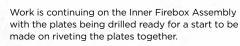


This is the Inner Former for the lower section. The step will be pressed into the plate and after forming the barrel flange on the block shown above the side flanges are formed here. The top section block is to the right. The former underneath is a Doorplate for a large GWR 4-6-0. PHOTO: KEVIN WEST





▲ Boiler barrel assembly underway at LNWR Crewe. The two barrel sections have been assembled and the dome hole cut. PHOTO: GAVIN SHELL



A meeting has been arranged between the project engineering team, LNWR Heritage and our boiler inspectors, to finalise the design and establish production methods for certain components of the boiler. This includes the dome design. We will also establish the agreed build plan and inspection requirement to cover the final stages of the boiler build up to completion.



▲ Taken at the beginning of May, these are the latest pictures showing the progress of the firebox at Crewe. PHOTOS: DAVID BRADSHAW

#### **TENDER**

Work on the refurbishment on the Tender Frames has been completed by Rowlescourt Engineering and they returned to Llangollen on Wednesday 16th March. On arrival they were placed on a rail mounted trolley to keep them mobile. The following day our volunteer painting gang started work to bring them up to the high standards they have set.



▲ The Tender Chassis following refurbishment at Rowlescourt Engineering. PHOTO: NEIL KINSEY

A start has already been made by Llangollen Engineering to replace a number of rivets that have wasted heads and preparatory work to rivet the Drag Boxes into the Frames. The Rear Buffer Beam was removed as part of this work which showed up the Outer Rear Drag boxes between the Inner and Outer frames at the rear of the chassis have suffered from much more corrosion than previously had been seen. It was decided to replace these completely and the profiled plates have been ordered, ready to be welded at Llangollen.

This has also shown up the adjacent areas of the main frames have also suffered localised wastage and we have decided these will also be replaced similar to work already undertaken at the front of the frames. This discovery is slightly disappointing as the chassis was surveyed by our VAB and whilst at Rowlescourt and this work was not highlighted.

Work on preparing the axleboxes has begun with a hunt for a pattern for the bearing brasses. We have been contacting the various groups with Fowler



▲ The Tender Frames being loaded onto the road transporter at Rowlescourt Engineering on 16th March.

PHOTO: KEVIN WEST

3,500 gallon tenders to see if anyone has a pattern we can borrow.

Design work on the new tank which will be of welded construction with dummy rivets is continuing taking into consideration the requirements for new main line running regulations.

#### **FUTURE WORK PLANNING**

Future work on the locomotive at Llangollen is expected to include permanent fitting of the growing number of finished parts.

A start will also be made on the lubrication pipework.

#### PATRIOT CENTRAL

Design work has been undertaken on a number of PC's since the project started. My latest machine was a re-engineered Dell laptop which replaced my old desktop machine a couple of years ago. The laptop was really useful to take onto the shop floor and for visits to suppliers. We had been thinking of replacing this with a new PC and also updating the software for a while. Following a hard disc failure on my laptop in February, an order was placed for a new laptop and the latest version of SolidWorks CAD software. Due to my back up procedure no work was lost to the failure apart for time during the repair.



 My desk at Patriot Central with my old desktop PC, the new laptop and my Dell laptop. Just about room for the tea mug but no room for the cats!

 PHOTO: KEVIN WEST

FOR ALL YOUR
LMS-PATRIOT PROJECT
BRANDED MERCHANDISE
VISIT:

www.lms-patriot.org.uk/shop

# GIVEUSA BRAKE!

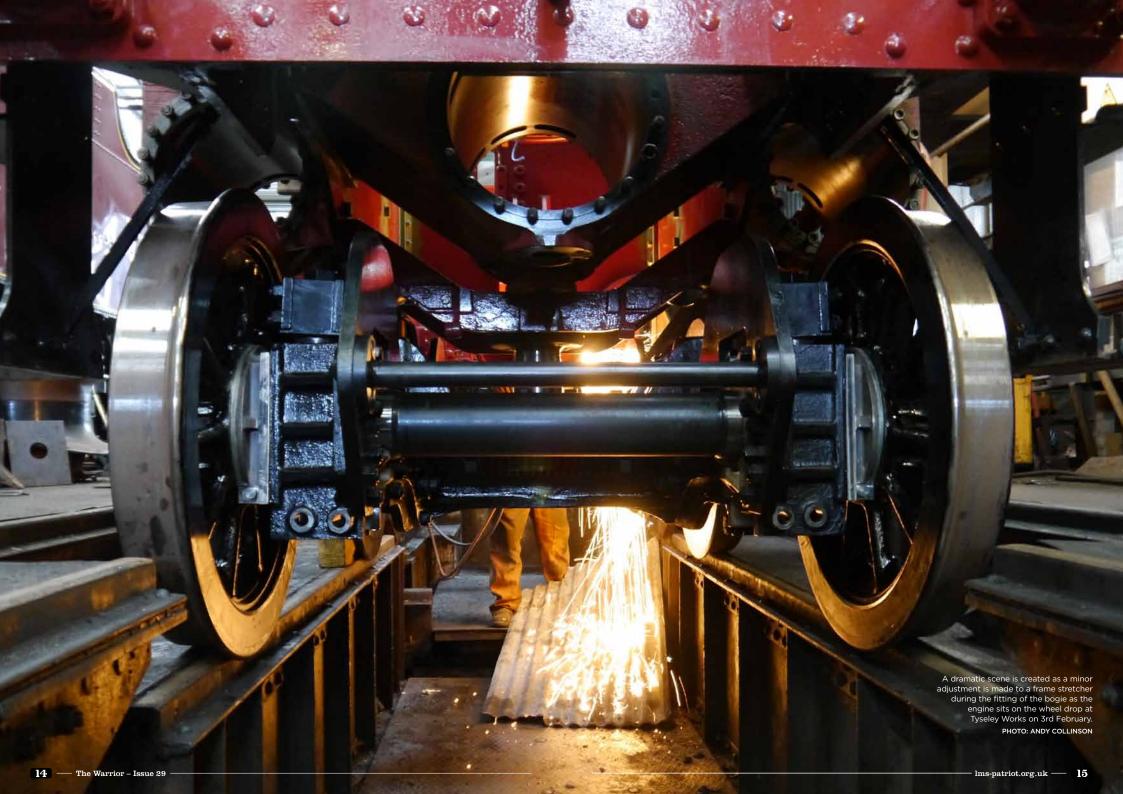
We require £25,000 to manufacture and fit the braking system to 'The Unknown Warrior'.

Please consider sending a donation - with your help we can do it!

If you would like to help with this appeal please send your donation with a note stating '5551Brake' to:



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## **VOLUNTEERS REPORT** by David Hughes

For months we have been awaiting the return of the locomotive and tender frames to Llangollen and then suddenly they arrive in quick succession. All systems go!

Prior to this limited work was started on the heritage tender axle box covers and tops by removing the rust, priming and filling grooved areas. Further work was also done on the sand pipes. As soon as the tender frames arrived a start was made on preparing the outer frame plates for a first coat of primer which was duly carried out and was ongoing as the locomotive arrived.

The next task was to give a spring clean to the area of the works where the locomotive and tender were to be installed. This was no small task as there was much accumulated and hardened muck and oil deposits.

Work on the locomotive has been restricted because of the need to keep out of the way of the workshop staff who are very active at the front end of the locomotive. We have made a start on the bogie wheels and also degreasing and cleaning up the interior of the frames. The latter has now had a freshening up with red undercoat.

The new inner frames of the tender require the removal of the mill scale before they can be

painted and the newly acquired, and very noisy, needle gun is being used to good effect. This is now 90% complete. However because of the restricted access the needle gun cannot be used on the other face and this is becoming a war of attrition using any means we can, but work is very difficult, slow and very much still in progress. It will be a long haul. It would be a great help if any new steel plate could be shot blasted before it is used.

The front and rear tender drag boxes have been de-rusted and the mill scale removed where required and these have now been primed. We are now awaiting further structural work on the tender before we can progress much further.

Finally the relocation of the locomotive and tender springs from the container to the workshop in readiness for fitting has presented the opportunity to sort out the many parts contained in it. Kevin, Jordan, Matt and myself spent a very useful afternoon doing just that and we now have a better idea of what we have got, what we still need to acquire and what we can dispose of.

## Galatea Locomotive Trust Fundraising Partnership

by Andrew Laws

The LMS-Patriot Company, is pleased to announce a fundraising partnership with the Galatea Locomotive Trust, the original group which was set up over 20 years ago to restore ex-Barry locomotive, LMS 'Jubilee' 4-6-0, No. 45699.

The new fundraising initiative has been formed to raise funds for the main line equipment that is needed for 'The Unknown Warrior' to run on Network Rail metals - TPWS, OTMR and GSM-R equipment, costing around £60,000. In addition to this, funds for the acquisition and restoration of a main line registered support coach are also being sought. Although 'The Unknown Warrior' will probably initially run with a hired support coach until there are sufficient funds to acquire its own.

The Galatea Locomotive Trust continues to support 45699 'Galatea', which is now owned by the North of England Historic Railway Trust, and whose restoration was completed at West Coast Railway's, Carnforth site. The LMS-Patriot Project has also benefited from the 6'9" wheel pattern which was originally commissioned by the Galatea Locomotive Trust and eventually used to cast new driving wheels for 'Galatea' after two of its driving wheels were cut through when it came off the rails in Barry scrap yard.

Donations can be sent to 'The Galatea Locomotive Trust', PO Box 828, Stockport SK1 9DF.

## Simon Weston, CBE appointed as first Patron of The LMS-Patriot Project

We are delighted to announce that Simon Weston, CBE, has been appointed as the first Patron of The LMS-Patriot Project. We are also delighted to bring you this news first before we release it to the press and publish it on our website.

Simon Weston, CBE, the Welsh Guardsman who survived an attack on the ship 'Sir Galahad' during the Falklands War and overcame devastating burn injuries, has become a tireless charity worker, public speaker, author and businessman. The Falklands War veteran is also noted for his motivational speaking and has won many awards including Freedom of the Cities of Liverpool and London. Simon has also appeared in the top 100 Mersevsiders list and was honoured as one of the top 100 Welsh Heroes. In 1992 Simon was awarded an OBE in the Queen's Birthday Honours and in the 2016 New Year's Honours, was awarded the CBE for his charitable work.

David Bradshaw. Chairman of The LMS-Patriot Company said, "We are delighted that Simon Weston, CBE has agreed to become our first Patron - his career in the Armed Forces and his long-standing charity work made him an ideal choice. Simon will be a superb ambassador for the Project".

Simon Weston, CBE said, "I have always loved Heritage projects but this project obviously had special appeal. The Royal British Legion does amazing work for soldiers and veterans and to have this locomotive completed in time for the



100th anniversary commemorations marking the end of the First World War will be particularly poignant. Please do support this wonderful project as much as you can and I hope to be able to come and see the progress first hand in the coming months".

# DON'T FORGET MEMBERS' DAY **LLANGOLLEN RAILWAY**

SATURDAY 25th JUNE, 2016

# THE PATRIOT LIVERY DEBATE

2016 Is the year of the big vote, no not the upcoming in/out Euro vote, it's the first livery of (4)5551. Being a member of the LMS-Patriot Project we always want your input on how we run the project and the big decisions that have to be made.

Back in 2008 we asked you for your ideas for the name of the locomotive and you chose the superb and very fitting name for a memorial locomotive, 'The Unknown Warrior', so in this edition of The Warrior you will see thoughts from a few members as to their reasons to vote for each livery. You may have already made up your mind but please take the time to read each argument, maybe something written might make you have a change of heart or maybe the images below will capture your imagination. Voting forms will be sent out to all members with your invite to the AGM in November.

What we would like from you, the membership, is to add to these arguments in the next edition of The Warrior to try to get those members who are still undecided to sway towards your opinion. Please send all arguments, whether for or against a particular colour to memberscorner@lms-patriot.org.uk or write to the office referencing 'Livery' to have your opinion published. We look forward to reading them. But for now here are the first arguments.

Thanks to Lee Marsh of Lee Marsh Models Co. for supplying the images used in this article. These superb O gauge models show the differing liveries at their best. See ad on page 43 for more details or visit www.leemarshmodelco.com

I have given this idea a great deal of thought as regards to the livery we should choose for our Patriot locomotive. Pondering over the choice of liveries, I personally will vote for LMS Crimson Lake with associated numbering and lining.

I think also she would look good in LMS Black or BR Black or even BR Green. Even an experimental livery would be acceptable if there was one!

In my youth (1959-1964) spotting and shed bashing in and around the Manchester area, although they were in action every day on express passenger, heavy goods and mail train, I remember them looking neglected, grubby and in grimy condition, oily and rusting in parts; some even bereft of nameplates and shed plates. I do. however. recall that on one occasion I saw a Patriot leaving Crewe works standing on shed in ex-works condition glistening in the sun. I think it was 45512 'Bunsen'; she looked magnificent in BR Green, sadly on that occasion I did not have a camera.

So initially, my first choice is LMS Crimson Lake purely because I have never seen a Patriot in this livery, though eventually I expect she will end up in other liveries as the years go by. My inspiration came about when I saw the LMS Crab No. 13065 in LMS Crimson on the East Lancashire Railway, she really looks the part.

I hope some of you agree with my choice. Brian Greally (Membership No. 81)

Why Crimson Lake?

Red is the colour of remembrance, not black. You will see many arguments about how black is the right colour for the loco during 2018, but I truly believe Red (or Crimson Lake to be correct) is the right livery to vote for. We wear black for mourning at funerals which is correct, but 2018 is 100 years since the end of the Great War and we are no longer mourning, we are remembering. Red being the colour of remembrance and the poppy. this would be the most fitting tribute to remember the men and women who lay down their lives so we could live ours.

Moving away from the 2018 commemorations and onto the reason for a railway enthusiast. We have previously stated that if the loco is in steam and in service before November 2018 we have a few months where we can have the locomotive changed to have different original numbers and names. For this reason Crimson Lake is again the best choice as it gives us more loco names to choose from, including the ability to use some of the LNWR numbers transferred from the Claughtons which would be a great sight and help financially with photo charters. My final reason to vote for Crimson Lake is that there are not that many locomotives currently painted in this livery and it would undoubtedly help us to stand out from the crowd. Being the National Memorial locomotive the public should be able to look us and know instantly what we are and what we stand for.

Gavin Shell (Membership No. 349)



At first it seemed an easy choice to make. No contest. LMS Crimson Lake, the first livery the Patriot Class wore when built back in the 1930s. But then I began to think more about our locomotive and what it will represent.

Being launched in November 2018 as
The National Memorial Engine, The Unknown
Warrior will be a major part of
commemorations to mark the 100th
Anniversary of the end of The First World
War. Although the end of "The War to end all
Wars" was to most a celebration that the
conflict was over it was also a very sombre
and sad time for the millions of families who
had lost loved ones during the four years of
the war.

Red or Crimson is a very celebratory colour. One of the most recognisable symbols of war and in fact The Royal British Legion is the red poppy. So the choice of LMS Crimson Lake would be the obvious option for the initial livery of The Unknown Warrior.

However in keeping with the sombre tone of the 2018 commemorations, black is a colour more suited to the occasion. It is still the predominant colour at most funerals and the Cenotaph ceremonies each November.

Therefore, after careful consideration, my vote for the initial livery for The Unknown Warrior **IS** – LMS 1946 lined black.

Chris Tasker (Membership No. 11)

There were two black liveries applied to Patriots relating to the last two years of the LMS in 1946 and then the early years of British Railways, as Crewe had large stocks of black paint after the war. But the main case for a black livery derives from the original Claughton class engine which carried the Patriot name and was turned out in L&NWR plain blackberry black – no lining – and perhaps not even varnished. It was number 1914 and this fitted the sombre mood of the nation after the war to end all wars. An earlier proposal was to name it 'Victory' and use the number 1918.

We have received the endorsement of the Royal British Legion to build the National Memorial Engine and they have kindly allowed us to mount their 1971 crest on the nameplates of 'The Unknown Warrior'.

Our charitable purpose is:

"To encourage and facilitate knowledge of the history of the Patriot class of railway engines, including the dedication of the class name in remembrance of the railway employee casualties of war with particular reference to the London, Midland and Scottish Railway and its constituent companies and British Railways and its constituent companies".

Given this background, and as we move towards 2018, and the centenary of the Armistice, I urge all members to vote for black as the first livery of 'The Unknown Warrior' until after this event.

Richard Sant (Membership No. 1)

My reason for seeing the Unknown Warrior in British Railways green would be that I was born in 1951 during the early BR days, I didn't see any Patriot class locomotive in LMS Crimson Lake or LMS Black and I can't remember seeing any in BR Lined Black. As a young lad in the 50s and 60s I saw Patriots in BR green working in and out of Birmingham New Street station. Those memories are still vivid and I remember well the excitement of walking down Queens Drive, the road that separated the LNWR and Midland sides of the old Birmingham New Street station, looking onto the platforms to see all the various trains both local and long distance going about their duties and it was here that I saw various members of the Patriot class of locomotive. I would like to see the Patriot in differing liveries in the coming years but green represents new growth and fresh hope as witnessed every spring and early summer and would be the colour to honour all those platform end and shed bashing trainspotters of the 50s and 60s who have helped to make this project become reality. Indeed virtually all the named express locomotives from the various regions that I saw in my train spotting days were green.

BR green at Crewe South shed.

I do remember seeing various Duchesses in BR maroon but it was the green locomotives that I remember most, including my favourite 'semi' No. 46235 City of Birmingham.

The only photograph that I took of a Patriot,

albeit a rebuild, was of No. 45512 'Bunsen' in

Chris Shell (Membership No. 487)

Locomotive liveries are often the seat of hot debate amongst the enthusiast fraternity with many squabbles breaking out on internet forums about what is correct for a locomotive... my question is very simple but may make a point that hopefully some members may agree with.

The young boy who stood by a London Midland Region lime in the 50s and 60s will remember Patriots in British Railways green, lined out in black and bordered with an orange line. That young boy will now be in his mid to late 60s and having spoken to many people about their days spotting around west Yorkshire a golden image of a Patriot coming off Holbeck Shed and working the Waverley towards Skipton and Carlisle is often mentioned. Indeed my own view is that whilst 45551 can never be considered a preserved locomotive it can rekindle the spirit of those engines that saw service right up to the end. A friend who worked at Skipton Shed (10G) remembers Patriots and recalls the Master Neverers Association cleaning them.

Looking through some of the archive photographs one striking image of a Patriot departing Preston double-headed with a Jubilee, both carrying a work worn green livery has always struck me as the epitome of Midland Region motive power at its finest. This striking livery is almost regimental in appearance in that time period and can be considered to be within living memory. Crimson Lake may look striking and be a bold statement, as would the sombre black livery but green will fit every image that my generation, who never saw a Patriot running in the flesh, but read about in history books. This image of 1950s railways is also what the majority of modern day photographers want to see and photograph, meaning potential earnings for the locomotive would be higher.

Jordan Leeds (Membership No. 606)





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# The Unknown Warrior: gone but never forgotten

Courtesy of Forces-War-Records.co.uk

The Unknown Warrior is a powerful symbol that embodies a host of contradictions. He is an ordinary soldier, but one who has been given a place of extraordinary honour; he has no name, yet every family whose relative never returned from the Great War feels that he belongs to them; he represents the losses and horror of war, but also the glory of dying for King and Country; and finally, he is doomed to remain 'unknown' for all of time, yet is famous around the world.

According to Mark Adkin's 'The Western Front Companion', the idea for this shrine to every man who would never have a proper named grave was conceived by Reverend David Railton, M.C., in 1916. Having just completed a burial service near Armentières, the Reverend was returning to his billet, his heart full of the cares of war, when he happened to pass a solitary grave, adorned with a simple wooden cross. On this modest marker was written, "An unknown soldier of the Black Watch". Something about the gesture of respect deeply touched him, so much so that he was moved to write to Douglas Haig, suggesting that the soldier's body be returned to Britain and honoured as a symbol of all like him. It was only much later in October 1920 that the idea was taken up and championed by the Dean of Westminster, as well as David Lloyd George, the Prime Minister.

The Commonwealth War Graves Commission stated in 2009 that 526,816 British and Commonwealth Great War soldiers have no known grave, but are named on various memorials, and of those, 338,955 have never been buried at all, while 187,861 do have graves but have not been identified. Four of the most devastating battles for Britain occurred at Aisne, the Somme, Arras and Ypres. To give some idea of the scale of devastation, Norman Ferguson's 'The First World War: a Miscellany' asserts that 54,435 soldiers with no known grave are commemorated on the Menin Gate at Ypres alone, with another 72,203 British and South African soldiers named on the Thiepval Monument at the Somme.

All missing British men – assuming their bodies have in fact been found – lie under a simple headstone with an epitaph composed by the great writer Rudyard Kipling, whose own son, John, was lost at the Battle of Loos: "A soldier of the Great War, known unto God". Each of these men likely had a family at home, and every one of their families suffered

the heartache of never knowing precisely where their loved one ended up, and never having a headstone to visit and lay flowers upon. It was to ease this frustration and grief that the tomb of the Unknown Warrior was created. The anonymity of the buried serviceman was a crucial element of the whole concept. In this way, the body would simultaneously represent no particular fallen serviceman, and stand in for all of them.

That being the case, great care was taken to ensure that nobody could have a clue who the warrior might be. Mark Adkin explains that one body only was exhumed at each of the Somme, Aisne, Arras and Ypres battlefields on 9th November 1920, with the servicemen chosen having no evidence upon their person of their name, what their unit was, or even whether they



The body of the Unknown Warrior being carried out of a château in Boulogne by eight British NCO's on 9th November



The body of the Unknown Warrior being drawn on a French wagon to the Quai Gambetta being followed on foot by Marshal Foch and General Macdonagh.

belonged to the Army, Air Force or Navy; they were, however, identified as British or Commonwealth and Dominion by means of being found in a grave containing pieces of British equipment, such as a belt or boots, and being exhumed where only British members of the Allied forces had fought. All four were taken to the same location, a Nissen hut converted into a chapel at St. Pol, where they were laid on stretchers and covered with the Union Flag. One of the four was then chosen at random by Brigadier General Wyatt, the General Officer in charge of troops in France and Flanders, who attended the chapel in the company of Lieutenant General Gell of the Directorate of Graves Registration & Enquiries. The other three were returned for reburial, while a service was held for the Unknown Warrior, who was then taken to Boulogne to begin the long journey home to Dover.

The burial was a sight to be seen. Eyewitness accounts by James Bone, at the time London editor of the Manchester Guardian, and Francis Perrot appear in Part 48 of 'The Great War, I Was There' magazine, published August 29th

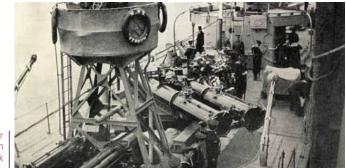
The body of the Unknown Warrior draped in the Union Flag being taken across the channel on the quarterdeck of HMS Verdun

1939. King George V, flanked by the Prince of Wales and the Duke of York, acted as chief mourner; this was only fitting, when one considers the fact that each and every individual who had gone off to war had done so in the king's name. A further gathering of dignitaries, waiting to meet the coffin at the Horse Guards' Parade, represented the forces and governments of Britain, her Commonwealth and Dominions, as well as the churches of those countries. The pall bearers were all Admirals, Generals and Field Marshalls, but a silent column of discharged British soldiers of all ranks, regiments, nationalities and services followed the coffin, in company with a host of 100 men who had been awarded gallantry awards, including 74 holders of the Victoria Cross, the bravest of the brave, who nonetheless came to pay their respects to this unidentified man.

George placed a wreath on the coffin, then the Archbishop of Canterbury recited the Lord's Prayer. At the first stroke of 11:00 by Big Ben the king pushed a button that dropped two outsized Union Flags that were covering the new permanent Cenotaph, a monument to all who had fought for Britain, both named and unnamed. As the final stroke died a two minute silence descended. then the Last Post was sounded and the procession continued on to Westminster Abbey - the traditional resting place of kings, dignitaries and members of the aristocracy. A service then followed, conducted by the Dean of Westminster and attended by Queen Mary, Queen Alexandra and the queens of Spain and Norway, as well as a profusion of exservicemen and over 1.000 war widows, 'The Western Front Companion' describes a deferential arrangement by which those women who had given both husbands and all their sons were at the front, those who had lost only or all sons next, followed by those who had lost husbands. The coffin, wrapped in a purple funeral pall, was lowered into a grave in the floor of the cathedral and topped with soil brought specially from Ypres, the first spoonful of which

Surrounded by a heavy mist, the

mourners waited as first King



was thrown in by the king himself. When the grave was covered over, it would be topped with a plaque of black Belgian marble, edged with red poppies and inscribed using melted-down cartridge cases. After the service, ambulances full of the blind or grievously wounded servicemen came to honour their friends who had never returned home at all.

However, according to the 'The Great War, I was there', the moving part of the occasion was only just beginning. Once the official service was over and the King had gone, soldiers, widows and remaining figures of authority alike fell in to file past the coffin and pay their respects. Frances Perrot says, "The V.C.s broke the solemn ranks and became just comrades looking their last on a comrade... the rich women and the poor - for all the open grave meant exactly the same thing." What that thing was is explained beautifully in a tribute written by James Bone:

"We know you well, dear comrade. We know that to you these honours would seem the most gigantic of jokes if they were paid to yourself. Your guffaws would burst the coffin.



The body of the Unknown Warrior passing through the streets of London on a gun carriage, the twelve pall-bearers representing the Navy, Army and Air Force.

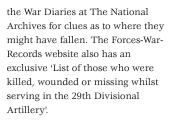
But you understand us. It is hundreds of thousands we are honouring in your person. Because you were nameless and were forgotten we choose you. You represent them all."

This is the secret of why the Tomb of the Unknown Warrior so moved the British people, and still does today. For all anyone knew, it was their loved one, their friend, their brave colleague who was so tantalisingly close, and so very honoured. That is why, according to 'The First World War' by Ian F.W. Beckett, 40,000 people visited to pay their respects on that first day alone. In the days that followed up to the 27th November, 1.5 million would make the pilgrimage to Westminster Abbey, to weep and lay flowers. Meanwhile, other

nations created their own shrines in imitation, with France holding its own commemoration of the Unknown Warrior on the same day as the British burial.

'The Great War Handbook' by Geoff Bridger explains that one of the ways to trace your 'Unknown Warrior' ancestor might be to check the British Red Cross and Order of St John Enquiry List, which gave names of those reported missing, with those found or presumed dead by the next month removed from the list. If your lost relative is on the list one month, but missing the next, or vice versa, this gives some indication of if and when they were confirmed missing or dead; once a timeline is established it is much easier to figure out what battle they were involved with at the time of death, and consequently where they might be buried. The Imperial War Museum has a good collection of these lists, or for 1917 you can run a quick search on the Forces-War-Records.co.uk database to find if your ancestor is included in the 'British Red Cross and Order of St. John Enquiry List 1917'. If you know your relative's regiment it is worth consulting

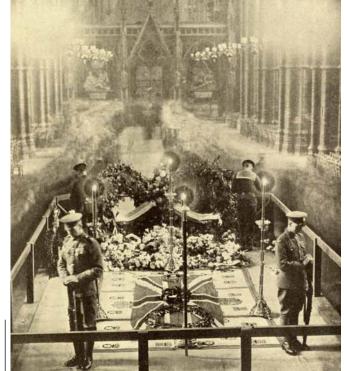
The body of the Unknown Warrior being carried into Westminster Abbey followed by King George V, the Prince of Wales and the Duke of York.



If you're not sure whether they are commemorated anywhere or not, check the database of the Commonwealth War Graves Commission, available to view for free on their website, and also on Forces-War-Records.co.uk, 'The IWGC/CWGC Registers Collection'. It may be that your relative's burial place is actually known and you didn't realise it, or they may simply be mentioned on a memorial at the place where they fell. Either way, the CWGC register could potentially tell you their rank, service number, date of death, age, Regiment/Service, Grave Reference (i.e. exactly where to find it in the graveyard), cemetery and possibly extra information such as parents' names. Even if many of these fields are not filled out in the case of missing soldiers whose bodies were never found, at the very least there should be details of some kind of memorial on which they have been commemorated as one of the 'presumed dead' of the Great War.







The grave of the Unknown Warrior in Westminster Abbey with a guard of honour representing the Army, Royal Navy, Royal Air Force and the Marines standing sentry over it.

Issue 13 April 2016. (URL link: http://fwr.to/Wz5t7)

Thanks to Neil White of Forces War Records Magazine for permission to reproduce this article.

Forces-War-Records.co.uk - The Professional Military Genealogy Specialists.

The Unknown Warrior: gone, but never forgotten, featured within the free e-magazine,



# Spotlight on Andy Collinson

For this spotlight we feature Andy Collinson, a sales stand volunteer who has recently been appointed as a director of Patriot Enterprises Ltd., the company that has been formed to act as the operational arm of the charity for when 'The Unknown Warrior' is running on the main and heritage lines.



### When and where did you first see a steam loco?

I'm reliably informed (not than I can remember!) that it was at the Keighley and Worth Valley Railway when I was two years old in 1977. We used to visit the line regularly with it being our local heritage railway near to Halifax where I was born.

### Where does your love of steam come from?

It's clearly in the genes. My Dad had a cousin who was a fireman at Llandudno Junction and my Great Uncle was a driver based at Mold Junction shed, both on the Collinson side of the family. Thinking about this, I assume that this also must be where my preference for London, Midland and Scottish motive power comes from.

Why do you think the younger generation who didn't see steam locos in every day operation like our parents did are just as excited by them as they were?

Because it is a completely different experience to what is now the norm of stepping onto a modern eight car unit today when say, travelling into Euston. To sit behind a steam locomotive listening to it work hard, the atmosphere, the smell: it's our

heritage. We should remind ourselves that we are extremely lucky to have such a healthy steam preservation movement and appreciate the engineering skills that continue to keep it alive.

## How did you get involved with the Project?

I'd been following the project since its launch with great interest and this grew when Dad volunteered for the role of treasurer. I had already given some thought to volunteering but it was that day that I walked into the hall at the NEC in Birmingham and saw the locomotive for the first time that I decided now is the time.

### What do you do for the Project as a volunteer?

I'm part of our pool of volunteers who help support the sales stand and am particularly enjoying travelling a little further afield to attend events at different railways, meeting members and encouraging more to support the project. More recently where we have the added bonus of having 'The Unknown Warrior' attending events "in person", you will have found me not far from the locomotive armed with a donations bucket!

## What do you do for the Project as a Director of the Trading Company?

The Trading Company (Patriot Enterprises Limited) Directors have collectively been busy behind the scenes preparing a business plan for the first two years of operation that has now been presented to the charity. It currently encompasses an operational plan, financial forecast, marketing activities and associated risks to the company based on assumptions of a minimum, a target and a maximum of number of operating days. This will continue to evolve in the coming months considering the market we are entering into with 'The Unknown Warrior'.

## What has been the best part about being a volunteer/director for the Project?

It is being a part of a great team and with the continued fantastic support from our members, donors and sponsors; we will achieve the ultimate goal together. It's also the enjoyment that it brings from a social perspective having brilliant days out such as Gavin's birthday bash to cracking open a bottle of Cabernet in our Chief Engineers kitchen after a hard days fundraising! And although erecting the tent at the Great Dorset Steam Fair in the pitch black and persistent rain after my wellies had been pinched and my car was rescued by a tractor didn't rate too highly... but hey, it's all part of the experience!

## Why do you think The LMS-Patriot Project has caught the imagination of the public and has been the success it has been so far?

Not only is it filling an important gap in the LMS express passenger locomotive fleet after all 52 Patriots sadly succumbed to the cutters torch, it is creating the new Royal British Legion endorsed National Memorial engine. I truly believe we have not reached our full following just yet and hope it will continue to grow between now, when she steams and beyond.

#### What is your favourite heritage line?

This is a difficult question as I have a few favourites, each having their own characteristics and charm. If I was to select one, it would be the Great Central. To be stood lineside on a double track railway, camera in hand with freights, passenger and travelling post office workings steaming past every fifteen minutes tops it for me.



Andy is also a keen photographer and took this shot of Black 5 No. 45407 'The Lancashire Fusilier' hauling The Jacobite over Glenfinnan Viaduct on 6th June, 2008.

### Do you have a favourite steam locomotive?

Apart from the obvious, I'd have to say a Black 5; the workhorse of the LMS and capable of pretty much everything.

## Where would you like to see 'The Unknown Warrior' run when it steams on the main line?

Wherever we can take it! She has to reach the widest audience possible. Piloting a Scot over Shap or Beattock will be very special and I can't wait!

## What are the current issues of running steam on the main line?

Aside from the recent issues regarding the safety of steam operated tours that thankfully have now been resolved, it still is a disappointment to see so many tours being cancelled in 2016 due to locomotive availability, gauging, shortage of stock etc. My personal opinion is that more attention should be directed towards contingency where practically possible to improve confidence in the market, keep existing customers and encourage more to enjoy a journey on the main line. My concern is revenue is clearly being lost and this does pose a considerable commercial risk to tour operators and ultimately the future of main line steam.

## Do you think steam has a place on today's high speed network?

It's a yes from me! It deserves its place and let's not forget the contribution rail tours make towards both the rail and tourism economy. Track access will continue to be at a premium on the busiest of routes but if it is currently achievable then I see no reason to doubt why it cannot continue.

### What is the best railtour you have been on?

The Welsh Mountaineer hauled by 61994 'The Great Marquess' pulling just six coaches from Preston to Blaenau Ffestiniog. It felt such a unique tour with the train being formed of only six carriages running on the main line. I had hoped that Black 5 No. 45305 would be rostered for the trip but 'The Great Marquess' did not disappoint and put in a fantastic performance up the steeply graded Conwy Valley Line. The lay over at Blaenau also allowed for a return trip Tan-v-Bwlch on the Ffestiniog Railway, just enough time to sample a fine Welsh lamb burger and a pint!

## The Patriot's Design History – An Artist's View

by Guy Maishman

As a railway artist, I have always appreciated the aesthetics of Britain's steam locomotives. Because I paint at most, one painting a year, choosing the locomotive class and the surrounding railway scene is very important. In 2012 I decided to paint an LMS Patriot locomotive mainly because I find the aesthetics of the Patriot design very attractive.

The Patriot class's design roots hark back to the grandeur of the London and North Western Railway (LNWR) at the height of the British Empire. In 1913, the LNWR introduced C. J. Bowen-Cooke's powerful 'Claughton' 4-6-0, four-cylinder express passenger locomotive class to the West Coast Main Line (WCML) to handle the heaviest express trains without doubleheading. With its prominent capuchin chimney, long boiler and characteristic cab, the Claughton design had the 'downright upright' look of an LNWR locomotive.

The four-cylinder design with a 175lbs per square inch high superheat boiler embodied new design and engineering thinking for the LNWR, having previously limited their locomotives to rugged and reliable two-cylinder designs for all purposes. An unusual visual feature of the Claughtons was that all four cylinders drove cranks on the front axle, which made the outside Walschaerts valve gear very compact and interesting to watch in motion.

During the First World War, the Claughtons were a boon on the heavy trains that came in and out of Euston. However, they suffered from poor maintenance

and the strain of pulling increasingly heavy trains. Sixty were built by the end of 1917, and the remaining seventy were built in 1920 and 1921. One completed in May 1920 was named 'Patriot' and became the LNWR's war memorial locomotive.

As the Claughtons were being built, operating problems were becoming evident. They were superb locomotives when first built, but dry, high superheated steam did not lubricate moving parts in the valve gear the way saturated steam had for previous designs. After the first few thousand miles, the valve gear's moving parts were being worn away from the inside, causing friction and steam leakage. The Claughtons became rapidly less efficient and consumed increasing amounts of coal. The time spent undergoing heavy overhaul to replace finely engineered valve gear parts became a serious problem. During the 1920s, the LMS partially solved the problem by installing oil lubrication systems to the Claughtons, bringing their reliability up to more acceptable levels.

The LMS also applied the new straw and black lined crimson lake express passenger livery to the class. From an artistic point of view, this provided a different look to the Claughtons. However, the ex-LNWR men deeply resented having to replace their splendid polished grey and maroon lined Blackberry Black livery with the LMS version of the Midland Railway's crimson livery which they considered "flashy".

By the mid-1920s, an even more powerful express passenger locomotive design for the WCML was being demanded of the LMS's Chief Mechanical Engineer (CME), Sir Henry Fowler. The larger Royal Scot passenger express locomotive was hurriedly designed and the first fifty were rushed into production in 1927. The remaining twenty were built in 1930. They were an initial success. However, oil lubrication systems were still not perfected and after a while they suffered similar wear problems to the Claughtons. William Stanier, who assumed the CME position in 1933, eventually solved those issues.

The Royal Scots were also too large to run over all the LMS main lines. For the Midland division and secondary express passenger trains on the WCML, the Claughtons were still the

best big express locomotive design the LMS had. So efforts were made to improve it, and the gestation period leading to the Patriot design began.

After oil lubrication improved the Claughton's operating reliability somewhat, Sir Henry Fowler decided to find out if fitting a higher-pressure boiler would significantly improve performance. A slightly smaller version of the Royal Scot's boiler was designed. Thus the large (G91/2) parallel boiler pressed to 200lbs per square inch was designed and fitted to twenty Claughtons in 1928.

The large-boilered Claughtons looked impressive. All wore the

LMS express passenger fully lined crimson lake livery. Ten retained their Walschearts valve gear and ten received Caprotti valve gear to see if that would further improve their reliability The Caprotti valve gear bulked up the look of the locomotives near the smoke box, but did not significantly lengthen the operating times between overhauls. The new boiler design with an upright smokebox face and modest capuchin chimney, however, succeeded in reliably providing much more sustained power. It was ready for the eventual Patriot design. The wear problems with the Claughton chassis still remained The compact front end with

poorly designed Schmidt piston rings and inadequate lubrication continued to limit reliable performance. Recognising that a completely new chassis design was needed, Sir Henry Fowler broke with both Midland and LNWR engineering traditions to provide one. Based on the Royal Scot design, the new chassis had three cylinders with effective valve gear oil lubrication. The outside cylinders powered the centre driving wheels. These wheels were the same size as those on the Claughtons and Royal Scots. When the new chassis was married to the large (G91/2) boiler, the Patriot design was born.

In November 1930, two small-boilered Claughtons were scrapped. Only their front bogies, driving wheels with large central bosses, reversing screws and whistles were used in the new design. The first of the new class was named 'Croxteth'. During 1931 and the first half of 1932, the two locomotives were put on front line duty to thoroughly test them for power, speed and reliability. They passed with flying colours and, using a few Claughton reversing screws and whistles, the remaining fifty locomotives were built between June 1932 and June 1935. Smoke deflectors were fitted to all the class from 1932. The class was given the unofficial nickname of Baby Scots. In 1937 'Croxteth' was renamed 'Patriot' and thus the first engine of the class finally gave its name to the whole class.

The seventy Royal Scots and the fifty-two Patriots quickly



This painting shows a large, powerful Claughton class steam locomotive ascending the incline at Edge Hill, on the way out of Lime Street Cutting, Liverpool The towering smoke above the locomotive shows that it is working hard. The painting is inspired by a black and white photograph taken by the Reverend Eric Treacy circa 1938, with the permission of the National Railway Museum, who own the copyright to all photos in the Eric Treacy collection.

replaced all the original Claughtons. The last few were withdrawn in 1935. The large-boilered Claughtons followed when the last one was withdrawn in 1949, along with the last 'Prince of Wales' and 'Precursor' class locomotives. There was no National Collection during the post-war austerity years to save these notable ex-LNWR locomotives for posterity.

The parallel-boilered Patriots were successful locomotives, having operating lives of between 25 and 30 years. They performed well compared with the later Jubilee class locomotives which had a Patriot chassis married to a very capable Stanier taper boiler. Many drivers contended that the Patriots could out-pull the Jubilees, especially up hills. The Jubilees were said to be smoother at speed.

The last parallel-boilered Patriot was withdrawn in December 1962, before the preservation movement got going. When Alan Peglar bought 'Flying Scotsman' in 1963, he was the first person to privately save a significant locomotive from the scrap yard. By the time other people organised themselves to save more steam locomotives, the parallel-boilered Patriots had all been scrapped.

The Patriot class is aesthetically pleasing to me because it retains a whiff of the downright upright designs of the old LNWR. The taper boilers used in almost all new designs developed after the Patriots changed the overall look of steam locomotives. The Patriots provided an

Guy has kindly agreed that his painting 'Patriot entering Liverpool Lime Street' can be used in the upcoming LMS-Patriot 2017 Fundraising Calendar. To view Guy's paintings visit steambritannia.com













The models above show the progression of the development of the particular locomotive design of which the Patriot is part. They are part of my inspiration for painting 'Patriot entering Liverpool Lime Street'.

essential link with how steam locomotives looked before taper boilers dominated locomotive designs.

'The Unknown Warrior' will be a unique locomotive that visually reminds us of an earlier age. It will also be deeply satisfying to hear again the distinctive bark of a hard working Patriot's exhaust.

We have much to look forward to.



# Network SouthEast



This model features fully detailed cab and passenger interiors and detailed underfloor equipment



## 371-023 Class 08 Diesel No. 08600

Livery: Network SouthEast - 'Ivor'

Ivor was allocated to several NSE depots, gaining celebrity status after attending numerous NSE open days and special events.



#### Capital Connection Train Pack 370-430

#### Contents:

- Class 47/4 No. 47581 'Great Eastern' in Network SouthEast livery
- BR Mk 2 TSO coach No. 5136 in Network SouthEast livery
- BR Mk I RMB coach No. 1685 in Network SouthEast livery
- BR Mk 2 BSO coach No. 9391 in Network SouthEast livery
- Scenecraft 'Downham Market' signal box

























प्()) Ready to accept sound decoder. 🙇 features 6 pin DCC Socket. ्रेत fitted with directional lighting. 📵 features NEM Couplings.

To find your nearest retailer, please visit www.bachmann.co.uk

Model, Collect & Create











## SALES REPORT by Neil Kinsey, Sales Director

Sales continue to be steady rather than buoyant. I guess with many people already sporting our clothing we have fewer opportunities to sell more. In fact I would be disappointed if I didn't see anyone wearing one of our products when we attend railway events. So keep wearing the brand, have a look and see if there is anything else you would like to purchase and perhaps ask your friends and family if they would like to be seen in one of our products.

We have some new items for sale this quarter, these are cotton 'Tote Bags' and branded car air fresheners. Add these to the recently introduced Back Pack and there are three more opportunities to show your support for the project.

The air fresheners can be purchased individually from our sales stand when we're out and about at events but owing to the cost of postage we only offer a pack of three by mail order.

Thanks again to those who have donated items in the past and please remember we are always

looking for good quality wares to sell, and don't forget that if you are a UK taxpayer we can claim Gift Aid on the cash raised from such sales providing you have signed a Gift Aid form.

If you do have anything you would like to donate please contact me at sales@lms-patriot.org.uk or by phone on 01773 832538 or you can contact the office.

Finally don't forget to come and say "hello" if you see us at events, together we will see all of our dreams realised before too long.

## **PATRIOT SALES STAND 2016**

Our Sales Stand - a vital part of raising funds and awareness of The LMS-Patriot Project - will be attending the venues, galas and events listed here during 2016 (subject to change).

#### June

**Doncaster O-Gauge Show** Sat 4

Statfold Barn **Enthusiasts' Day** 

Sat 4

**Epping Ongar Gala** 

Fri 10/Sat 11/Sun 12

**Great Central Model Show** 

Fri 17/Sat 18/Sun 19

Mid Norfolk Royal Scot Gala

Fri 24/Sat 25/Sun 26

**Tyseley Open Weekend** 

Sat 25/Sun 26

August

Midland Railex, Butterley

Sat 13/Sun 14

Cambrian WW1 Exhibition, Oswestry

Sat 20

September

North Norfolk Gala

Fri 2/Sat 3/Sun 4

**Great Central 50th Anniversary** 

of Closure Gala

Sat 3/Sun 4

**Telford O-Gauge Show** 

Sat 3/Sun 4

Statfold Barn **Enthusiasts' Day** 

Sat 10

Somerset & Dorset Gala. **Midsomer Norton** 

Sat 10/Sun 11

October

**Keighley & Worth Valley Autumn Gala** 

Fri 7/Sat 8/Sun 9

**Swanage Autumn Gala** 

Fri 14/Sat 15/Sun 16

**Ecclesbourne Model Show** 

Sat 15/Sun 16

Mid Hants Autumn Gala

Fri 21/Sat 22/Sun 23

**Bluebell Giants of Steam** 

Fri 28/Sat 29/Sun 30

November

**Great Central Season Finale Gala** 

Fri 4/Sat 5/Sun 6

# **PATRIOT MERCHANDISE**

Please make your selection from the items on this page and complete the order form overleaf. If you do not want to cut the page out of the magazine photocopies will be accepted.



















































































The LMS-Patriot Project – Sales Order Form						
Item No.	Item Description	Size	Quantity	Cost £	P&P £	Total
1	'The Unknown Warrior' branded 19 litre backpack			23.00	4.00	
2	5551 Baseball Cap -Maroon			8.50	3.50	
3	45551 Baseball Cap -Green			8.50	3.50	
4	5551 Pin Badge			4.50	1.75	
5	45551 Pin Badge			4.50	1.75	
6	Multi Pocket Waistcoat/Gilet (S, M, L, XL, XXL)			27.50	4.50	
7	00 Gauge Nameplate Set			8.50	1.25	
8	The LMS-Patriot Project T-shirt - Maroon			15.00	3.50	
9	The LMS-Patriot Project Line Drawing Mug			6.00	4.50	
10	The Book of the Patriot 4-6-0s - Graham Onley			12.95	3.50	
11a/b	'The Unknown Warrior' Nameplate Badge - LMS Red or BR Green			4.50	1.75	
12	'The Unknown Warrior' Cap – Black			8.50	3.50	
13	'The Unknown Warrior' Cap - Maroon			8.50	3.50	
14	'The Unknown Warrior' Tea Towel			5.00	2.00	
15	'The Unknown Warrior' Logo Mug - Red			6.00	4.50	
16	Jonathan Clay Unknown Warrior Mug - Lined Black			6.00	4.50	
17	Colin Wright Unknown Warrior Mug - BR Green			6.00	4.50	
18	Colin Wright Unknown Warrior Mug - Red			6.00	4.50	
19	Colin Wright Limited Edition Print - BR Green			55.00	4.95	
20a	Colin Wright - A Brush with the Past B2 Print - LMS Red			40.00	5.00	
20b	Colin Wright - A Brush with the Past B3 Print - LMS Red			20.00	5.00	
21	Jonathan Clay - Unknown Warrior in BR Black - A3 Print			20.00	5.00	
22	Royal Signals & Semaphores at Birmingham New Street - Print			8.00	5.00	
23	Unknown Warrior Tie			12.00	1.75	
24a	The UW Polo Shirt - Burgundy (S, M, L, XL, XXL)			17.00	3.50	
24b	The UW Polo Shirt - Black (S, M, L, XL, XXL)			17.00	3.50	
25a	The UW Sweatshirt - Burgundy (S, M, L, XL, XXL)			22.00	4.50	
25b	The UW Sweatshirt - Black (S, M, L, XL, XXL)			22.00	4.50	
26	The UW Fleece - Burgundy (S, M, L, XL, XXL)			30.00	4.50	
27a/b/c	Unknown Warrior Beanie Hat - Maroon, Black or Green			8.50	2.50	
28	Steam Memories - LMS Patriots			9.99	2.50	
29	Claughton & Patriots 4-6-0s Book - G. Toms and R. J. Essery			16.95	2.50	
30a/b	'The Unknown Warrior' Profile Badge - LMS Red or BR Green			4.50	1.75	
31a/b/c	Steam Sounds of the Sixties CD - Volumes 1, 2 or 3			6.00	2.00	
32	Air Freshener (pack of 3)			4.50	1.75	
33	Branded Tote Bag			4.00	1.75	
TOTAL						

Ordered by:

Delivery Address:

Post Code:

E-mail Address:

Telephone number:

Membership number:

Please indicate size required when ordering garments.

Please make cheques payable to: The LMS-Patriot Company Ltd.

Please send to: The LMS-Patriot Company Ltd., The HUB, 17 Eastgate Street, Stafford ST16 2LZ.



bromboroughpaints.co.uk 0151 334 1237

Supplier of paint for 'The Unknown Warrior'

# Safety approval for main line running

by Colin Hall

A meeting has been arranged for 25th May at Llangollen with Philip Sharpe, Principle Engineer, Rail Vehicles, ORR (the rail safety regulator).

This meeting will make a start on getting agreement on a project-specific safety management plan for main line approvals. It will focus initially on our role as a 'project entity' in producing a locomotive that is 'good in principle' (to use the industry guidance jargon).

This is all about documented risk assessment, creating an audit trail of our engineering quality management records, and external inspection both of this work and of the locomotive itself. All this will be an essential prerequisite for our Train Operator's responsibilities in demonstrating (with our support) compatibility with Network Rail infrastructure.

A first general meeting was held with the ORR

and other new-build projects in June 2014.

Our work has to be done against a changing legislative and industry standards framework. For example, the long-established formal Vehicle Acceptance Body ceases to exist from June 2016, and the governing Railway Industry Standard Engineering Acceptance of Rail Vehicles GM/RT 2000 is withdrawn and replaced by a new Industry Standard for Verification of Conformity of Engineering Change to Rail Vehicles (wake up at the back there).

So the path is not a well-trodden one: it is therefore very important that we reach clear understandings now with safety stakeholders, to avoid disappointment later.

## Planning in Progress

by Colin Hall

ROLLING CHASSIS A dated programme has been agreed with Llangollen Engineering for assembly work up to the point where the boiler is fitted to the chassis. This runs up to March 2017. It can be regarded as a best case forecast - while there is some leeway in the early stages, no allowance has been made for major slippage due to component supply or other unforeseeable issues.

The timing plan has been amended to reflect the engineering decision not to remove the driving wheels and bogie for the next assembly stages up to July - saving time.

Further work is needed to plan the final completion of the locomotive - an estimate is of 9 months work.

TENDER Llangollen's work on the tender cannot be planned in parallel with the main assembly work, because of resource constraints. Work will be done if the main assembly work is on hold for anv reason.

BOILER A notional programme was included in Warrior Issue 28. At a project meeting on 27th April, LNWR Heritage Crewe agreed to provide a high-level programme with milestones for the run-in to completion by January 2017. This is dependent on the delivery to LNWR Heritage of outer firebox components by the end of May.

# BOX VAN by Kevin West

B230355 is a VANWIDE 4 wheel box van. Built as B783305 at Wolverton in 1962 and rebuilt and renumbered at Horwich in 1982. Vanwides feature a wider door to faciliate the increasing use of forklift trucks and pallets. The van has been fully restored by its previous owner and is in good sound condition.

The van has been purchased as a store for low value parts and materials used for the construction of The Unknown Warrior. The van is a resident in the shed yard at Llangollen, so will be easily accessible to our volunteers. There are no plans to use the vehicle in the demonstration goods trains run at Llangollen or for use with the locomotive as a support vehicle. The cost of £2,500

was thought to represent excellent value as a short term storage facility.

The van will probably be offered for sale at the same cost once The Unknown Warrior has left Llangollen, which will give us free storage for a number of years. The purchase has been included in our items requiring sponsorship, so if anyone is interested please contact the office on 01785 244156 or email the Chairman, David Bradshaw: chairman@lms-patriot.org.uk



We are looking into providing a more robust way for entry into the van than shown in the attached photo!

**KEVIN WEST, LLANGOLLEN 5TH MAY 2016** 





www.morrislubricants.co.uk

## A Blue Plaque for Sir Henry

by John Kyte

Some 77 years after his death, Sir Henry Fowler, the designer of the Patriot Class locomotive, the Royal Scot and many other locomotives of the Midland Railway and the London Midland and Scottish Railways, for which he was Chief Mechanical Engineer, has been honoured in Evesham, his birthplace and where he

Following the success of a permanent exhibition on his life and work which the Vale of Evesham Historical Society placed in the Almonry Museum and the publication of the book 'Sir Henry Fowler. K.B.E.' by the Society, the Civic Society proposed that a Blue Plaque should be placed in an appropriate place to commemorate Sir Henry.

Both Societies then funded a suitable plaque to mark the commemoration.

Sir Henry Fowler

1870 - 1938

The actual building in which Sir Henry was born, in Port Street Evesham, which was his father's business as a cabinet maker, no longer exists. Its place is now taken by a modern shop. It was decided that the best place for the plaque was on the old Midland Railway station building now known as Signal House which is now an office block. It was one of the two stations which Sir Henry would have passed each day on his way to the Grammar School and he would have seen the

many locomotives that travelled through the station and many that were used in shunting goods wagons and vans which carried the fruit and vegetables from Evesham to the north and south of Britain. It would also have been the station which he used when travelling to the Mason Science College in Birmingham.

On the 27th January, 2016, an the station when members of the two Societies greeted many invited guests including the Prince Henry's High School (formally the Grammar School where Sir Henry attended), the Gloucestershire Warwickshire LMS representatives, the Cotswold Line Promotion Group, the County Council, District Council and Evesham Town Council and a number of railway enthusiasts.

The Mayor of Evesham, Councillor Fred Kaler unveils the Blue Plaque



The Mayor of Evesham,

the plaque and paid tribute to

Sir Henry and his contribution

service to the WW1 war effort for which he received his

knighthood, to the education

where he was born and where

A small display of the work

and life of Sir Henry by the

attended the unveiling.

Historical society was also of

Robert Wells attended the

ceremony on behalf of the

LMS-Patriot Project for the

unveiling of the blue plaque.

railway enthusiasts, there was

Whilst not all those present were

interest to the many people who

of young engineers and his

he lived.

received his early education and encouragement to pursue his career in engineering.

unveiling ceremony took place at Railway, The LMS-Patriot Project,



Invited Guests at the unveiling ceremony, 27th January, 2016. The siting of the plague was by kind permission of Mr Michael Gage.

PHOTOGRAPHS: RICHARD J. KYTE © 2016.

considerable interest in our project during 'networking time', and a number of flyers about the project were taken.

## **HOWLER WITH FOWLER**

The wrong image accompanying the article about Sir Henry Fowler was used in Warrior 28, this was of Henry Hartley Fowler who was a Liberal Member of Parliament for Wolverhampton East. Apologies for the error and thanks to Neil Kinsey and John Kyte for bringing it to my attention.

PETE SIKES



## A fitting tribute to the First World War

Tom Robin, Centenary Manager, The Royal British Legion talks about the continuing partnership between the two organisations.

We are proud of our continuing partnership with The LMS-Patriot Project and following a site visit on 20th April 2016 it was great to see the work in progress on the engine at Llangollen Heritage Railway works. The visit was kindly arranged by Richard Sant as part of our partnership. It was amazing to see the actual engine's progress up close and talk to Dave Owen, Kevin West and the rest of the engineering crew dedicated to building and recreating this memorial engine.

As Centenary Manager for The Royal British Legion, my role involves working in partnership with a number of organisations working on the Centenary of the First World War. In our role as national custodians of Remembrance, we are keen to explore new and innovative ways for the public to remember the sacrifices of those who fought 100 years ago, especially the role of the railway servicemen.

At the site visit we progressed discussions about how the engine could possibly be incorporated into plans for Armistice 2018 along with further possible partnership possibilities.

The LMS-Patriot Project has received the endorsement of The Royal British Legion, and 45551 will carry a Legion crest above "The Unknown Warrior' nameplate in recognition of this.

To find out about our Every Man Remembered campaign – asking to remember all 1.1 million servicemen who died in the First World War visit www.everymanremembered.org.uk





# 'RAILS AND REMEMBRANCE' EXHIBITION RE-RUNS IN MANCHESTER

The Patriot Exhibition 'Rails and Remembrance' is running again at The People's History Museum in Manchester from Monday 2nd May until Sunday 5th June.

The exhibition was originally launched in May 2014 (see Warrior 22) and was funded by the Heritage Lottery Fund. The exhibition is well worth a visit if you have been unable to visit the People's History Museum. More information is available from www.phm.org.uk











# **MEMBERS' CORNER**

## REGULAR **DONATIONS**

By the end of April 2016 we had increased our regular donors to 334, thanks to those who have recently signed up and those who continue to donate regularly. However, we are still some way short of our target of 500, so we would like to ask those of you who have not done so yet to consider signing up for the remaining period of the build (until December 2018). It is so important that we are able to forecast our income accurately so any way that we can strengthen our finances is very welcome.

Thanks to member and volunteer Mike Paine who has kindly sent in the following photos that he took, the two of No. 5500 with a 'Box Brownie' and No. 45513 with a Kodak 'Retinette'.

Top: No. 5500 'Patriot' at Bushbury Shed on 29th May 1948.

Middle: Another shot of No. 5500 'Patriot'. this time at Fallings Park, 18th August 1948.

Bottom: Unamed Patriot No. 45513 picking up water at Whitmore Troughs in July 1959.







## **GOING THE DISTANCE FOR** THE UNKNOWN WARRIOR

Starting on 9th May 2016, Colin Hall, the project's Planning Director, will be cycling the 850 or so miles from Lands End to John o'Groats in support of The Unknown Warrior.

Colin is hoping to complete the ride in 16 to 20 days, in two stages: the first five days from 9th May to get a better idea of the daily mileage he can manage for days on end, and the rest in September 2016. There will be no support crew, but a good friend is riding with him.



Colin said: "This is something I have wondered about doing for a while: I am comfortable on a bike in principle, but I have no experience of riding longer distances day after day!

If anyone would like to sponsor Colin as another way of helping our project, this can be done via his JustGiving page (which can be Gift-Aided) https://www.justgiving.com/COLIN-HALL8

Updates will be posted on the JustGiving page, and in future editions of The Warrior.

## **DERBY TRAINSPOTTING DAYS**

During the later years of the 1940s I was taken by my mother to the Midland station in Derby to watch the trains and hopefully catch a glimpse of my father on his engine as he was a driver with the LMS. I was hooked from there on and spent many happy years travelling the lines of the LMS with my copy of my Ian Allan spotters book. When time allowed I could always be found either to the north of the station at Siddles Road or sat on the bridge on London Road, this later viewpoint offered a view of the Derby to Birmingham line and also the Derby to London line and from where I could see the Derby locomotive sheds.

The most exotic locomotives were Black 5's, the Jubilee class and the occasional Patriot. To see the real powerful locomotives I went to Tamworth Lower Level, my fathers usual route was Derby to Birmingham and if I knew he would be driving on the early Saturday morning service I would make a point of going that day, when we got to Burton-upon-Trent he would allow me to join him on the footplate and on several occasions this was 'Derbyshire Yeomanry', hence my love affair with the Patriots.

Regards, Graham Dawson

## SEND IN YOUR PATRIOT STORIES AND PICTURES

We are keen to hear from you, our Members, so please send us any experiences, stories and photos connected with Patriots, the railways in World War 1, family members who worked on the railways, etc. that you think may be of interest so that we can publish them in future editions of The Warrior. Please email any material you may have to: memberscorner@lms-patriot.org.uk or post to the Stafford office. Suggestions of how we could improve the magazine are also welcome.

## WHERE IN THE WORLD?

As the summer approaches and our minds turn to holidays we thought it would be a good idea to see where in the world you could take a photo wearing Patriot Project branded clothing or merchandise. It really doesn't matter whether you holiday at home or abroad, it would be good to see you spreading the word about our marvellous project. Send photos and a few words to

To start us off we have the Collinson family who have been on their travels...

Treasurer Neil and wife Sue are pictured at Vilamoura Marina, Portugal while their son Andy (who is featured in our Spotlight series on page 28), is pictured next to JA Class No. 1250 'Diana' after spending the day on the footplate at the Glenbrook Vintage Railway, New Zealand.





## WORD SEARCH 5 LOCO PARTS

**SMOKEBOX** DRIVING/WHEEL FIREBOX CONNECTING/ROD **STAY • RIVET** COUPLING/ROD NUT • BOLT • GRATE • CHIMNEY • CROSSHEAD SLIDEBAR • STRETCHER AXI E/BOX • INJECTOR **EXHAUSTER • CAB** CRANK/PIN • WEB **TENDER • CYLINDER** WHISTLE • BUFFER SAFETY/VALVE **REGULATOR • DOME** STEAM/PIPE **BOGIE • FRAMES** RUNNING/PLATE PISTON/ROD • VALVE CYLINDER/LINER SUPERHEATER/HEADER **GAUGE • BEARING** LIFEGUARDS LAMP/BRACKET

\$ T A Y A H S R E D N E T H O C R O S S H E A D UKMCBWPKGEBYDE<del>VALVE</del>ZGWER P ! S T Q N R O D M K A B O E B R A U P A H T I EDOCJNXYFRSCHIMNEYAZUSRV YATNDQIGORBQTNDYLGLE HRQLPKUENVNUFALWUXBNEI TMCEXPIVNTELEJYDUG NUVNKFTSLTFBKSFAMGELW PCYSRURPYBAH PKEWTNDYMABUUGRATE RAKNYUCVGGLTCUTNWAROE HOKTOBIGHJTRLRBJFNGHLTRL EXGMEWLGRGAOVBOLFLTIYKGT | T | D | A | Y | S | F | L | U | D | R | I | L | D | E | A | F | S | L | W | D | A DOMEAJMEUDAAAFZTPRCDTMEB JIKCRTZKTOCMUSAXLEBOX CUEYWIATPEXHAUSTEREGN SEMARFYLRNSCODRFBMVGWIZ HGBFONPLIFEGUARDSYJTISEQ TDOVLAYTBNYDBSAFETYVALVE QUXOBERIFWCYLINDERLINERT STRETCHERGOLAMPBRACKETLD

## **CAPTION COMPETITION**



Congratulations to John Barrowdale who went to town and sent in the following captions:

- Thank God I had this bucket handy after those three beers I just had.
- Gavin's 30th birthday eh; wish I could remember my 30th birthday!
- If I pretend to be asleep, I can listen to that great 4 cylinder Stanier beat in comfort instead of walking along the train yelling 'A Pound for the Patriot'.
- 4. (Richard's dream) zzz I'm sure I can hear
  8 beats per revolution and not 6 so it can't
  be TUW on the front. zzz

Thanks also to P. C. Roulston for... Please fill the bucket quietly.

...and Gavin Shell pushed the limits with: Hmm, so this is how everyone else feels when I'm talking to them.

# MEMBERS' DAY AT THE LLANGOLLEN RAILWAY

SATURDAY 25th JUNE, 2016



A reminder that this year's Members' Day will take place on Saturday 25th June and we hope that you can join us. Following on from previous years, the event will follow a similar format with an optional Fish & Chip Special train to finish the day.

Please return your booking form or call the office on 01785 244156 to reserve your place.

## **ENGINEERING REPORT (update)**

by Gavin Shell and Andrew Kennedy

On Tuesday 3rd and Wednesday 4th May the riveting of the two barrels took place at Crewe Heritage Centre. This was the chain:

- 1. Helen Lucas heating rivets.
- 2. James Curtis passing heated rivets from Helen up to Robert on the high level staging.
- 3. Robert Adamson receiving rivet, tapping it, then passing through the hole for the dome, to Alex (pictured inside the barrel).
- 4. Alex Thorley put rivet in pre-drilled hole, pass tongs back to James, then press rivet from behind with riveting gun. Robert Adamson (again), once the rivet is fully in position from the back, Robert uses a riveting gun to complete the job from the outside.
- 5. ...meanwhile, more rivets are being heated up.

The four person chain is to ensure that as little heat as possible is lost before the rivet is in position.

ALL PICTURES COURTESY OF OAKWOOD VISUALS.











## The LMS-Patriot Company Limited

Building the new Royal British Legion endorsed National Memorial Engine -'The Unknown Warrior'

Company Registered in England and Wales No: 6502248

Registered Office:

The HUB, 17 Eastgate Street, Stafford ST16 2LZ.

Registered Charity No: 1123521

VAT Registration No: 978 8801 48

Account Details for Direct Donations:

CAF Bank Ltd., Account no: 00092990

Sort Code: 40-52-40

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Follow us on Facebook and Twitter





The LMS Patriot Co. Ltd. Company Registered in England & Wales No. 6502248. Registered Charity No. II2352.

### **Project Support**

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Documentary Video:

Andrew Kennedy - Oakwood Visuals

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Marketing Support:

George Jones, Bob Sweet, Richard Meanley

Sales Support:

Neil, Sue & Andy Collinson, Karen Kinsey, John Barrowdale, David and Carol Hancox,

David Hughes, John Lancaster, Brian Johnson, Godfrey Hall, Robert Wells, Mike Paine, Colin Hall, Bev King, Chris Ainscough, Shirley and Mike Dunn,

Marcus Marston-Grimley, Chris Shell, Kirsten Shell,

Peter Whittaker, Pete Sikes

Volunteer Co-ordinator:

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## **Locomotive Assembly**

Dave Owen - Llangollen Railway plc

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Website: www.lms-patriot.org.uk

#### Newsletter

Produced by The LMS-Patriot Project.

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Design and Artwork: Pete Sikes

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The Warrior - Issue 29 © 2016 The LMS-Patriot Company Limited lms-patriot.org.uk — 51 World War 1 hero Wilfred Wood V.C. in the cab of No. 5536, the 'Patriot' engine named after him.

PHOTO: BOB ESSERY COLLECTION

