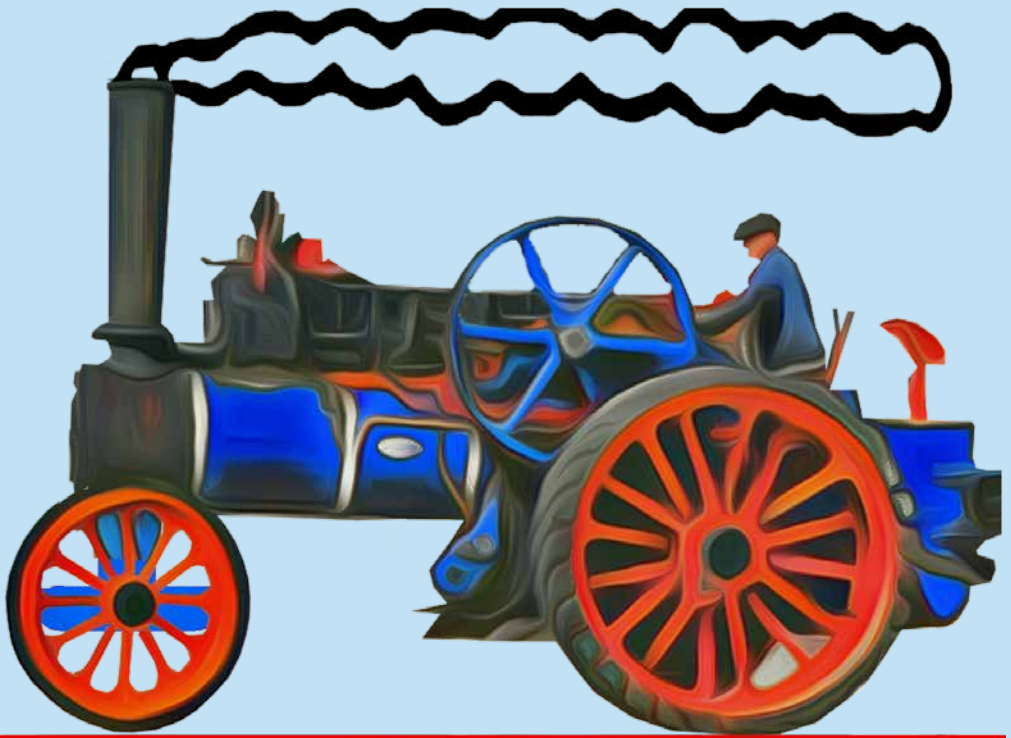




Raising Steam



Volume 31 Number 2 – April 2017
FREE to SAC Members

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The Editor welcomes any contributions of articles, shorter items or photographs for inclusion in future issues. All material submitted is voluntary and payment cannot be made for any material published. The opinions expressed in the magazine, with the exception of Club announcements, are those of the contributors and do not indicate the views of the Club as a whole. All items are held copyright by the contributor and the NTET. The Editor reserves the right to amend or refuse contributions. The magazine is normally published during January, April, July and October. The Club accepts no liability for failure to meet intended publication dates.

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Do you want to be famous across the UK?

**Get your letter printed in
Raising Steam!**

**send all contributions to the editor
sac.raisingsteam@ntet.co.uk**

Front Cover: Remembering John Tomlinson, who sadly passed away in March.

From the Editor

Kevin Munn

It's now only just around the corner, a new season! Some of you will have already cleaned off engines and maybe been to an event, I hope you enjoyed them. Sadly one of our apprentices won't be, John Tomlinson, died after a short illness, he was 14 years old. An obituary appears further in the magazine telling you all about him and how he was liked and respected by all that knew him. Our

thoughts are with his parents and sister during such a sad time.

Do enjoy the season, learn and keep safe.

sac.raisingsteam@ntet.co.uk

From the Chairman

Elaine Massey

Well! We are all a bit gutted that none of you seem to be interested in our latest idea of being able to give older apprentices the chance of spending some time out on the road!

You missed it? Didn't read it? Ok; lost opportunity there, don't miss the details of a fantastic few days with Rhoda the Roller, travelling from Sussex to Rempstone Rally, straight through London.

Look out for details of how to get involved later in this mag!

Hopefully you are all out there, at rallies, driving days and all sorts of steam activities. Your committee is also working hard to make sure everything goes well and trying to add more events.

It would really help if we knew what things you would like us to do! Please take a few seconds to get in touch, e mails, facebook, website!

Please remember that whereas you are always being told how dangerous

things are, even when there are so many bits to protect you that you can't really hurt yourself, steam actually is dangerous so listen to instructions, stop when told, and pay attention!

For newer members, or as a reminder; dress in overalls or old clothes, make sure your arms and legs are covered.

Wear leather shoes, boots or toe caps. We are not being fussy, boiling water will go straight through trainers and burn your feet!

Lastly: be polite! Leave your phones in your pocket and have fun! Our enginemen are volunteers! Without them we cannot offer you anything!

Elaine Massey
Chair SAC

John Tomlinson

Lisa Crankshaw

It's with great sadness that I write this tribute. The world of steam lost a brilliant, caring, lovely young man, John Tomlinson of Hinckley on Sunday 26 March 2017, aged just 14. John had grown up with steam and was known to be totally "steam mad". At the age of 4 he had an obsession with fire boxes. He lived and breathed engines and was always excited for road runs and rallies. He completely adored his family engine, 'Elsa' and loved his Granddad's Aveling, 'Nancy', too. He was very much a family lad – he got on really well with his sister, Ellie, and adored his cousins. Last year he started to take 'Elsa' out on the road with his Dad, Stuart – much to his mum Hazel's, protests! He was always with Sam and Edwin at rallies, who did a lot to teach him about engines. He couldn't wait to be old enough to fire and drive the locos at Statfold Barn and had started getting involved with the preparations for the open days. He was always extremely polite but he could have a laugh with people too. He'd always challenge people who didn't think Fowlers were the best! He even said to one chap that his engine was nice, but not as nice as Elsa! You could always have in depth discussions with him about that sort of thing, but it never stopped him wanting to learn about all of the different makes of engines and their histories. He was a dedicated pupil

at school, and in tribute to him, all of his school friends were found to be talking together drinking tea on the morning they heard the sad news, as John always went to school with a thermo-cup of tea in the mornings.

There have been hundreds of tributes on Facebook and it's a sad time for all of those who knew John, even for such a brief time. My personal memories of him will always make me smile. Our deepest condolences and love go to his parents, Stuart & Hazel, his sister, Ellie and the rest of the family. I don't think such a young gentleman like John will ever be forgotten. Memories – let them fill your mind, warm your heart and lead you through.

Lisa Crankshaw, with additional words from Caroline Arrowsmith

Photo: Colin Harris



Steering on the Road

Pilot Scheme

In the last edition of Raising Steam we advertised for anyone who would be interested in having a go at steering on the road. This would be a great opportunity to gain experience and we highly recommend it to anyone who is able.

We've only had one applicant so far, so please do get in touch if you'd like to have a go.

The road runs will take place in the Midlands, near Burton upon Trent, South England in East Sussex and we are looking at somewhere further North.

To be able to participate you should be tall enough to look over an around an engine, to be able to see where you are going. You must bring your own food and drink as well as making arrangements with drivers and parents as to where and when to be picked up. This will cost £15.

To express an interest contact Kevin Munn at sac.raisingsteam@ntet.co.uk.

These events will only go ahead if enough interest is expressed. Please get in touch ASAP!



Driving Days 2017

Additional Driving Day in LEEDS!

Great news! we have been able to finalise the arrangements for a SAC driving day in Leeds.

The date will be Saturday 9th September, on the grounds of the Otley rally. They hope to have 6 engines in attendance.

Application forms can be downloaded from our website.

As ever, please get your applications for places in as soon as you can. The organisers really appreciate knowing some way in advance how many apprentices are coming so they are able to accommodate you all safely.



Century

Wendy Young, Richard Parrott

Webdy young has sent in this history of Richard Parrott's Burrell traction engine 'Century'. Richard is the organiser of our Weeting driving day.

Burrell Engine 'Century' keeping Thetford history alive!

'Century', as she's known is believed to be the oldest working Burrell engine in existence, turning 140 years old this year.

The Burrell 8NHP steam engine named 'Century', Works No. 748 was built



in 1877 at the Charles Burrell's Works in Thetford, Norfolk. Founded in the late 18th Century the Charles Burrell's Works produced thousands of steam engines up until they closed in 1928.

Ordered new as a chain engine, although is a two lever geared 8NHP engine on a 10NHP boiler, with front axle from a chain engine. The Burrell Works only used this gearing system for a couple of years before changing to a single gear lever engine. The engine was delivered to a Mr De'ath of Lavenham after being built and there's little knowledge of the engine up until 1907 when it was up for sale by John Craven, an engine dealer in Ely. In 1907, W.J. Ford & Sons of West Row, Mildenhall purchased the engine, paying around £80. They were agricultural contractors and engineers and the engine was in need of some repair, they cut nine inches off the length of the boiler due to it's rusty state and after repairs it was for threshing until the 1940s.

The current owner Richard Parrott purchased the engine in 1972, from general manager, Mr Jack Thompson. The engine was in a derelict state after being stood out in the elements for 30 years and was purchased in a non-working rusty state. After repairing the boiler, giving her a new smoke box and getting her up and running, albeit with holes in the tender, she was in steam for the 1972 Weeting Steam Engine Rally. After more repairs and cleaning she was in full working order for the 1973 Rally.

Originally painted burgundy red, it wasn't until a later date that it was realised the original colour was green, so she was repainted in late 80s, early 90s.



Over the years there have been more repairs and restoration completed, in 2012 a new fire box was fitted, her first since being preserved back in 1972.

Richard is chairman of the Weeting Steam Engine Rally, starting the event in 1968 and this year will see it's 49th anniversary, being held from 14th-16th

July. 'Century' is used every year at the Rally to parade the guests around, who officially open the Rally, in her time she's had some famous people steer her around the main ring; Anglia Television presenters Katie Glass and Helen McDermott and more recently Elizabeth Truss, Vicky Ford MEP, ITV Anglias' Becky



Jago, BBC Look East's Felicity Simper along with Baroness Gillian Shepherd who is a fan of the Rally and has attended many times over the years. Richard and Century also met the Late Queen Mother one year at the Suffolk Show.

The original Burrell Paint Shop, on Minstergate in Thetford is now a museum and has been open for 25 years, Richard was one of the founding members

who campaigned to make the museum happen. The museum opens Easter Sunday every year and closes on the last Saturday in October.

If you'd like to see 'Century' in steam with a Burrell drum and elevator, visit the weeting Steam Engine Rally and Country Show, 14th-16th July 2017, there's so much for all the family to see and do



Lady Sylvia's Boiler Test

Julian Tyrrell

It's that time of the year when the engines come out of winter hibernation and have their annual boiler test, as this was the case with Lady Sylvia. Dave Wothers very kindly tests the SAC engine for us, at the same time as my 4 1/2" Burrell. The test involves a 'cold' inspection followed by a 'hot' test.

The cold inspection requires the boiler to be drained, so all 4 of the plugs around the foundation ring have to be removed – the two front ones are easy, the two rear ones are more problematic as you cannot see them on a 4" miniature. There is a plug at the top of the front tube plate that also has to be removed, with one hand holding the end of the socket

on the plug and the other turning the spanner underneath – it is much easier with 2 of you to do this. Whilst the boiler is drained a good clean inside out with a jet wash makes the inspection easy.

Dave measures the thicknesses of the tube plate, firebox plates, and back plate with an ultrasonic thickness gauge. This is used to determine how much wastage of the metal due to corrosion there is on the inside. This is followed by an internal look using Dave's camera and fibre optic endoscope to check the stays & tubes.

The all the plugs are re-fitted and the boiler filled with water, a fire lit and the engine is brought up to pressure for the 'hot' test. The requirement for this is that the safety valves lift to keep the pressure to less than 10% over the maximum rated value (red line). Dave checks that



both the safety valves work correctly, and inspects the all of the plugs for leaks, the fusible plug in the firebox and both ends of the tubes. The last test is that the water pump and the steam injector both operate at maximum pressure to fill the boiler.

The winter works on Lady Sylvia was to fit a longer regulator level to make the driving easier, and to add a second notch to the reverser lever forward position, so we can use less steam when driving. Please come and say hello at various shows that she'll be at during the year.



Lady Sylvia's Diary - 2017

1st May - NTET/SAC members day at Gaydon Motor Museum

5th & 6th August - South Cerney rally, Gloucestershire

24th - 28th Aug - Great Dorset Steam Fair

Technical Achievement Award 2017

Annual award for technical achievement

Applications are invited for the SAC Technical Achievement award. Areas of achievement may include: engineering work on full size engines, model engineering or any other appropriate steam related subject (bearing in mind that we are essentially a road steam organisation).

The purpose is to encourage young people to develop hands-on experience generally within typical engineering skills. This can be using various machines such as lathes and mills as well as handwork. Nominations to be entered by a sponsor for whom they have been working or have been under the instruction of, or apprentices may enter themselves.

Applications to be received by August 15th should consist of a brief description on one side of A4 paper with 3 or 4 photographs and/or sketches. See address inside your latest copy of Raising Steam. The judging committee will then

contact the nominator or apprentice by either phone or in person to discuss the application. From these discussions, suitable candidates will be chosen, and final and fully detailed submissions will be invited to be with the Chairman by September 15th.

Judging will be completed by mid October with the announcement of the winner by end of October. The award will be presented at the NTET AGM.

Judges will be from members of the SAC Committee plus invited persons from an area appropriate to the subject entered.

Please note that due to the all round experience we are looking for it is unlikely the award will be awarded to an apprentice under 15. Though as we know there is always an exception to the rule, so please don't hesitate to either enter or contact the Chair for guidance.

New Members

Katherine Wilkins - Petersfield, Hampshire
 Christopher Wilkins - Petersfield, Hampshire
 Tom Carrington - Royston, Herts
 William Griffin - Hatfield, Hertfordshire
 Jack Roberts - Great Bromley, Essex
 Hannah Canning - Bridgwater, Somerset
 Zackary Boon - Sandy, Bedfordshire
 Colin Taylor - Alresford,
 Harvey Yarham - Nethergate, Norwich, Norfolk
 Jacob Halliday - Brighouse, Yorkshire
 Max Galloway - Hitchin, Herts
 Lewis Gray - Sleaford, Lincolnshire



Apprentice of the Year 2017

To receive the Jack Beeby cup

This award is to recognise an Apprentice who has shown all round enthusiasm in their involvement with Road Steam. This may be hands-on experience with an engine or helping to maintain or restore an engine. Consideration should be given to how well they have learnt and respected the necessary skills needed in the operation of an engine. There is no particular type of submission we are looking for other than that you feel the Apprentice has made an effort, has learned from what ever activity they are doing and has shown the ability to 'stay the course'. We would expect that the Apprentice has been working with one engine or group

for at least 3 or 4 years.

Submissions should consist of a brief description on one side of A4 paper of what they have been doing and why you think the Apprentice deserves the award, perhaps with 3 or 4 photographs and/or sketches if you feel it will better illustrate the case.

Entries to be with the SAC Chairman by mid September, see address inside your latest copy of Raising Steam or Steaming. Judging will be completed by mid October, with the announcement of the winner to be made at the NTET AGM where the award will be presented.

The final decision on the recipient will be made by the SAC committee.

A Riveting time at the NEC

Practical Classics & Restoration Show

At the beginning of April the SAC accompanied the National Traction Engine Trust on their stand at the Practical Classics Restoration Show at the National Exhibition Centre in Birmingham.

Lady Sylvia accompanied us at part of the display, and was very popular with the crowd.

The NTET put on an amazing display, we had the Fowler re-build 'Talisman', owned by Alex Sharhouse, doing a live rivetting demonstration on the rear wheels.

The demonstration involved drilling the holes for the rivets, heating the rivets in a forge and using a hydraulic riveter to squeeze the rivets into place.



Lady Sylvia on display, with Talisman in the background



The award the NTET won for the stand, for Best Live Working Exhibit.

2017 Photographic Competition

As in previous years, we are running a photo competition to be judged at the Great Dorset Steam Fair. We have some MEGA prizes for the winners and every apprentice who enters will receive a free badge.

Rules

1. Entry to this competition is restricted to fully subscribed members of the SAC.
2. Each entry will consist of 1 photograph taken by the apprentice between August 2016 and August 2017.
3. We prefer entries to be digital photos sent in by email or on a disc, but prints are also welcome.
4. Entries must be emailed to sac.webmaster@ntet.co.uk, or sent to Nick Bosworth (SAC), 76a Main Road, Smalley, Derbyshire, DE7 6EF. Entries should arrive by Monday 14th August 2015.
5. If you would like your entry returned, please include an SAE.
6. If sending a print, please DO NOT mount your photo for display.
7. All entries must include: Name, age, address and SAC membership number; place, date and details of the engine or subject.
8. Copyright in all entries will remain with the SAC member and the Steam Apprentice Club.
9. Entries will be displayed at the 2017 Great Dorset Steam Fair in the NTET tent. Entries with a SAE will be returned after display and/or publication in the magazine.
10. The competition will be judged in two age groups: up to 15 years and 16 years and over. Prizes for 1st, 2nd and 3rd place in each age group will be awarded from the selection below.

Judging

The judges will be looking for originality, composition and technical ability. Photographs do not have to be of traction engines, but other subjects must clearly be related to the traction engine movement.

The judges' decision on all entries will be final and members are asked to accept them in a spirit that will bring credit to themselves and the Steam Apprentice Club.

Tips

Try to plan the setting of the photo, keeping modern equipment and structures out of the background.

Try to take photos when the sun is behind you, as this will illuminate the subject better and the photo won't be of the side in shadow.

NTET Driver Training Course

Ask someone to give you a voucher for the NTET Driving Course on 6/7 May 2017 at Astwood Bank.

Steam Apprentices (age 13-15) £80, (age 16 – 21) £125.

DISCOUNT of 15% If you pay for 2 years at the same time

Contact Joe Black at:- training@ntet.co.uk - or Tel: 07595 466353

2017 Model Competition

The theme of the National Traction Engine Trust's display at this year's Great Dorset Steam Fair will be Timber Haulage, so this year's model competition is to build a pole trailer, which were used to carry timber.



Your task is to make a pole trailer, that would be a suitable size to be towed by a Mamod. You may make it out of any materials you like. We will be looking for creativity and attention to detail. If you'd like some plans to follow, we have posted some detailed instructions on the SAC website. The basic design is to have two sets of wheels, with a pole running the length of the trailer to connect them.

You can enter the SAC model competition by bringing it to Dorset or by submitting photographs. Bring along your models to the SAC Stand in the NTET marquee and we will display them for the week of the show.

If you cannot attend the Great Dorset Steam Fair in person, you can still enter the model competition by sending us photos of your model. You can send up to 10 photos, please make sure there are at least three of the finished model, and include photos showing the different stages of the build (so we can see how you've built it!)

We will put a selection of your photos on display at GDSF, alongside the usual model competition entries. (All your photos will be shown to the judges).

Entries should be emailed to:

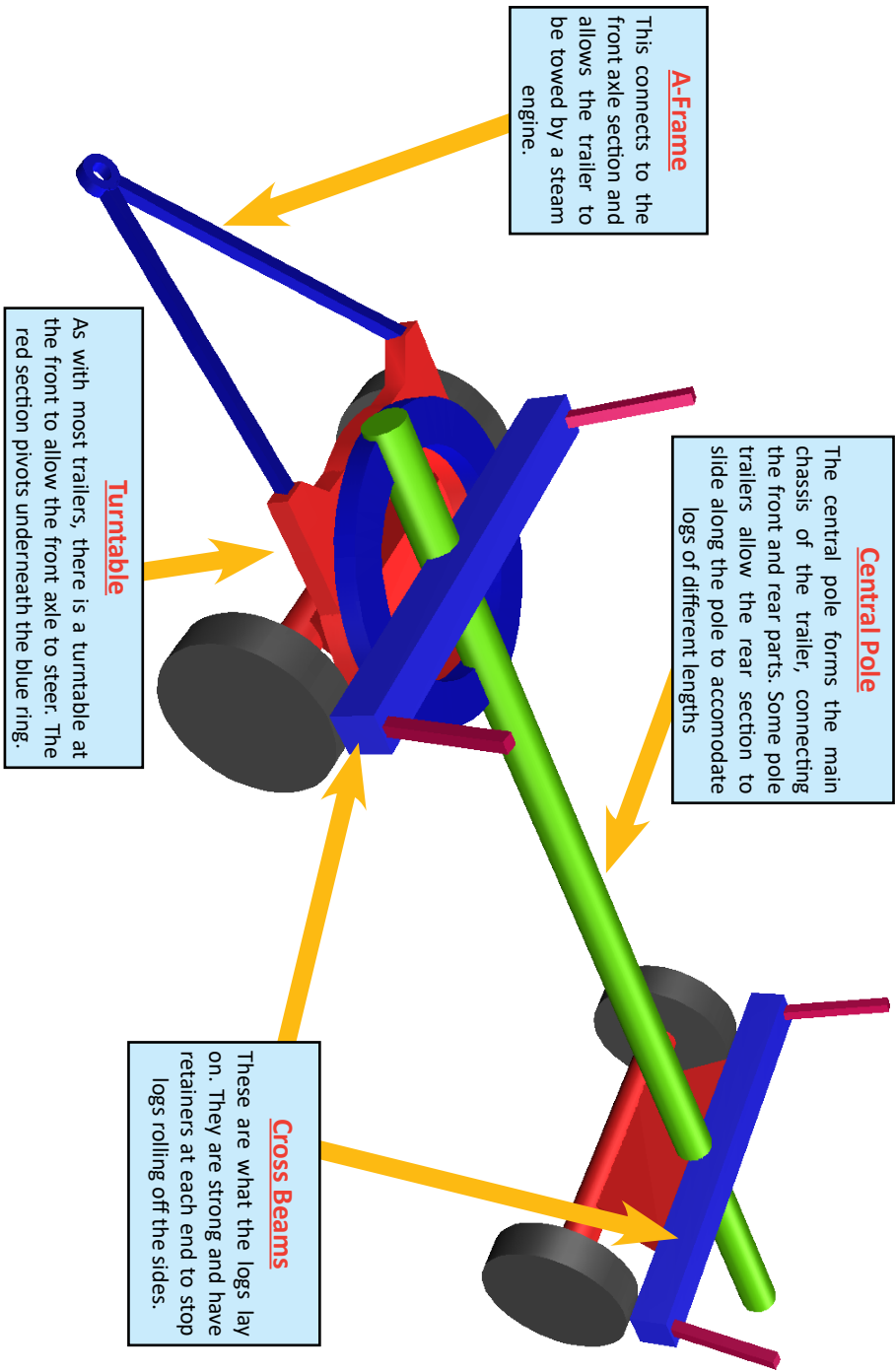
sac.webmaster@ntet.co.uk

Please include your name, age and membership number.

You can tell us about any special features of your model. Entries, both physical and photographic will be judged at the Great Dorset Steam Fair. Winners will be announced at GDSF, on the SAC website, on Facebook and in Raising Steam.

All entries to be received no later than Monday 15th August

NOTE:- If you are intending to bring your model to GDSF as usual, there is no need to send photographs.



Pole Trailer Design...

Rhoda the Roller Another Chance to steer on the road

On the 4th of July Rhoda the Roller will be on a journey from East Sussex, heading North to Rempstone Rally, on the Nottingham/Leicester border.

The owners and Crew of Rhoda would like to invite members of the Steam Apprentice Club to help.

The trip will take between 2 and 3 days, including an overnight drive. The route will take Rhoda through the middle of London!

You must be prepared to work hard and complete a Facebook diary of the journey,

maybe even take a video. You will have to be 16 plus and show that you have had some experience of steering or alternatively a short paragraph describing your experiences and why you want to have a go. Or even both!

Send your details and entry to Kevin Munn - sac.raisingsteam@ntet.co.uk, and include when you would be available. Rhoda's drivers along with the SAC will have the final say on who they take. Arrangements timing etc will then be made.



Get Technical!

Removing Rivets

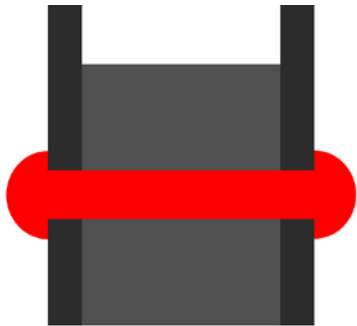
Nick Bosworth

By now almost all Traction engines and steam rollers have had repair work carried out to replace worn out boiler components, such as the firebox.

Your new committee member, David Hurley, is currently replacing the firebox of his Marshall steam roller, which we saw on the front cover of the January edition of Raising Steam.

When replacing a firebox, it is necessary to remove all the rivets and stays that hold the firebox in place, without damaging any of the outer shell of the boiler, or any parts that are not being replaced.

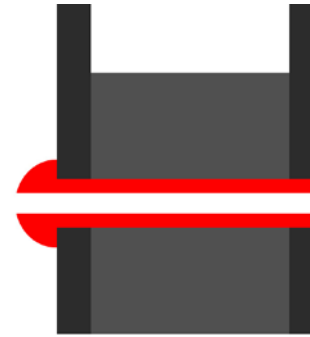
There are many ways to remove a rivet, but the method David is using to remove the foundation ring rivets is as follows:



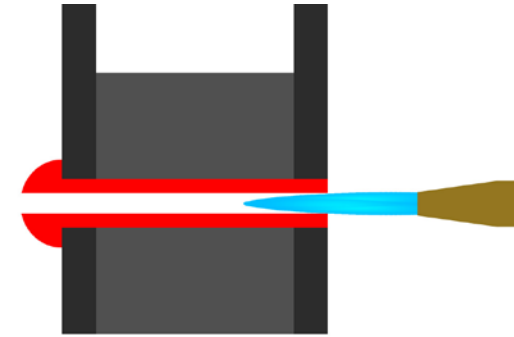
1) We start with the rivet, which holds together the outer plate, the inner firebox, and the foundation ring in between.



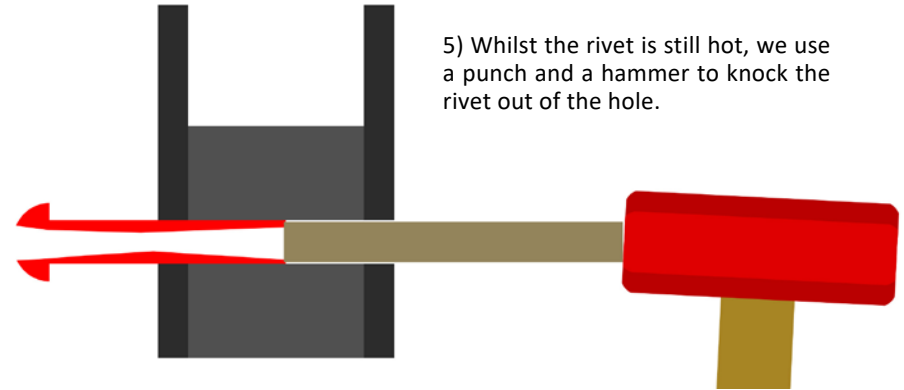
2) The first step is to use an angle grinder to remove the head at one end of the rivet. (See the photo below, where you can see the rivet after a head had been ground away). After being in place for over 90 years, the rivet is firmly in place and tight in it's hole.



3) We drill a hole all the way through the rivet. This creates a passageway for us to use a oxy/acetylene cutting torch to remove more metal from the middle of the rivet, and for the sparks and waste metal to pass through.



4) We use a cutting torch to remove more metal from the inside of the rivet. Small cuts are made from the hole we drilled in the centre, out towards the edge of the rivet. This weakens it, and the heat helps to soften the rivet and loosen it's grip inside the hole.



5) Whilst the rivet is still hot, we use a punch and a hammer to knock the rivet out of the hole.





Get Technical!

