

**Reading Society
of Model
Engineers
Charity Number
1163244**

The Prospectus

October 2022



President

Les Dawson

0118 969 4654

Trustees Chair

John Billard

01189 340381

07834 998971

Trustees Secretary

Stuart Kidd

07966 278968

Editor

John Billard

john@jegbillard

.plus.com

Free to members



Roger Pattie's memorial train headed by *The Earl* waits at Welshpool. See page 9. Photo George Saffrey.

**2022 AGM 27 OCTOBER
THIEVES CAUGHT
KNUCKLES CONCLUDED
FOUNDRY WOE
THE NOOK
ROGER PATTIE MEMORIAL
ANTOINETTE ADVENTURE**

THE VIEW FROM THE CHAIR

John Billard

You will know that since June we have suffered several break ins and thefts from our site in Prospect Park. This has caused great disappointment and upset amongst our hard-working members. We are doing what we can to improve our security and to strengthen the site.

Late on Friday 16th September we suffered a further attack. However, this did not go according to plan for the thieves as a local resident hearing unusual noises contacted the police. They reacted very quickly and arrived in force to catch the assailants red handed. We are delighted that this had happened. I would like to give particular thanks to Peter Culham who received a very late night call from the police and hastened to our site not knowing what he was coming to.

All this was reported at our trustees meeting on 20 September. We have had to deal with insurance issues following recent events and considered all the useful work being done by the Wednesday workers to strengthen our site. In particular it was decided to continue the cladding work round our building to completion. Well, there is some cost involved this will be repaid by a better maintenance free appearance as well as to deter intruders. Further work continues on lighting and other urgent matters that are displacing our usual maintenance regime.

We are coming to our AGM which will take place on 27th of October. Notices are set out in this issue. This gives our timetable for nominations and motions.

Our long standing and respected president Les Dawson has decided to retire from the post at the AGM. I am sure that much more will be said but I would like to give my personal thanks to Les for all the help he has given me over the years and I know this will be shared by very many members both young and old.

GWR Locomotives: Coupling Rod Knuckle Joints Part 5 by Alec Bray

Conclusion

It seems most likely that there was an engineering reason for the positioning of the knuckle joint ahead of the driving wheel crankpin on the original "Saint" 4-6-0s, which was then applied directly to the original four cylinder 4-6-0s. Changes in springing, compensating levers and other design changes in the two-cylinder 4-6-0s mean that the initial engineering reason was no longer valid – but the knuckle joint position did not change. When Hawthorth was promoted from Chief Draughtsman, he changed the knuckle joint position for the four cylinder 4-6-0s relatively quickly (as there was no technical reason for the location) – and perhaps all drawings reflected this change (5005 in 1935!). All new designs for two-cylinder 4-6-0s then adopted the

“regular” position of the knuckle joint (after the crankpin) although existing designs (the “Halls”) continued to be built with the knuckle joint forward of the crankpin. There was no advantage – in mechanical efficiency, ease of maintenance or general performance – in the location of the knuckle joint, so no thoroughgoing changes across the classes were instituted. Because of time constraints, parts availability etc, sometimes some locomotives were outshopped with coupling rods and their knuckle joints in a different position to those they had when they came in for overhaul.

And finally ...

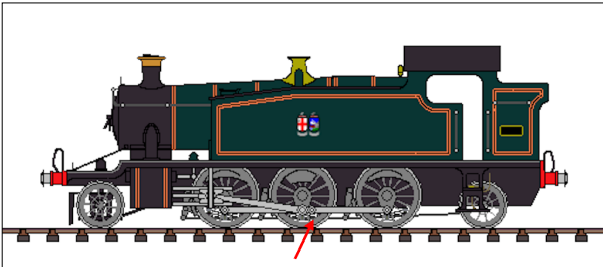
There is an interesting anomaly concerning the 44xx/45xx tanks. The original 44xx tanks had the knuckle joint in front of the driving wheel crankpin; the 45xx (the later design) had the knuckle joint to the rear of the driving wheel crankpin (although the line drawings in Russell’s book show the knuckle joints on the leading coupled rods). But the wheelbases of the two locomotive designs were reversed (with the driving axle remaining in the same position), so the coupling rods from one design could be mounted on the opposite side on the other design!

The respective coupled wheelbases were:

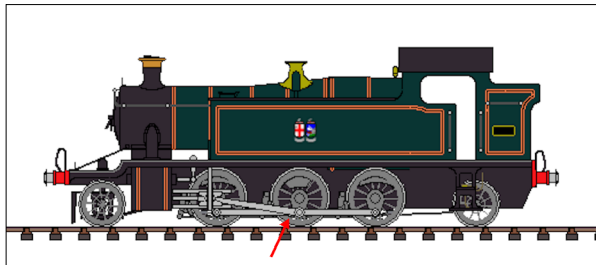
44xx 6ft 0in + 5ft 6in

45xx 5ft 6in + 6ft 0in

So here are the 44xx and 45xx locomotives – complete with knuckle joint in the correct positions - - from the final version of the “GWR Locomotive Sketchpad”.



Unfortunately my friend passed away from leukaemia shortly after completing his model but before he could see the article he provoked.



This article is dedicated to the memory of my friend Keith Mills.

Concluded

RSME 2022 Annual General Meeting

Please be reminded that the 2022 Annual General Meeting of the Reading Society of Model Engineers will be held in the Clubhouse, 82 Bath Road RG30 2BE on 27th October 2022 at 7.30pm.

Three trustees, John Billard, Jim Brown, and Mick Chalmers are due to retire by rotation. A further vacancy is caused by the resignation of Peter Harrison. Miriam Venn's appointment as a trustee ends at this AGM.

Potential nominees should ensure they have read Charity Commission Guidance notes CC3 and CC3a (available from the Charity Commission website) before their nomination is submitted.

Nominations should reach John Billard, Old Station House Twyford Reading RG10 9NA on or by 13th October 2022.

Each nomination should be signed by the nominee, and a proposer. The nominee should indicate their willingness to serve, that they are not disqualified under the Charities Act, and that they have read the Charity Commission Guidance Notes CC3 and CC3a.

Both nominee and proposer should be current members of the RSME

Any motions for consideration at the AGM need to be submitted to John Billard at the above address by 13th October 2022 and they must be proposed and seconded by current members of the RSME.

Stuart Kidd

Trustees Secretary

RSME President Nomination 2022

Les Dawson, after over 18 years of service as our president, has decided to retire from the position.

The post of president will be held by a member of long standing and be well respected within the club. The president acts as a figurehead of the RSME. The president does not have a vote at trustee meetings.

The president will serve for a period of three years, or earlier if the holder wishes to renounce the position. This period may be extended with the agreement of members.

Nominations for the post of president are now being sought. Should there be more than one suitable candidate, an election will be held at the RSME Annual General Meeting on 27th October 2022.

Nominations should reach Stuart Kidd, Trustees Secretary, 25 Rangewood Avenue RG30 3NN on or by 13th October 2022.

Each nomination should be signed by the nominee and a proposer with an agreement of the nominee to stand.

Both nominee and proposer should be current members of the RSME

Stuart Kidd

Trustees Secretary

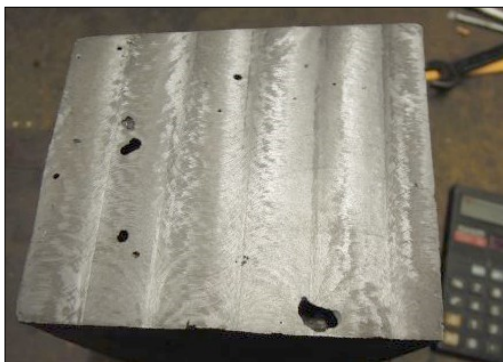
IN SHOPS THIS MONTH

A pesky pump and a casting failure

John Billard

A bit of a mixed bag this month. The Rob Roy overhaul has reached the stage of steaming to check that all is well with the fittings. However the water pump which works off the crosshead was a failure. After several trials I decided that the only way forward was to make a new pump and I secured a casting form Kennions. It was a bit of work in the circumstances to complete it but I was disappointed on further test that pumping was still ineffective. A long time has been spent checking clack and ball clearances etc. and this is all become rather frustrating. I can't remember having such problems on first construction but that was a long time ago. It should not be that difficult!

I have set it aside for now and will wait for further inspiration.



In the mean time, turning to the Claud construction, after much chasing, I collected the cylinder casting from the Bridport foundry. This was pleasing because I had no idea that the pattern I had made would work. This was of the split variety with cores which was a first for me.

The disappointment came when I started to face the casting up on the milling machine. Unfortunately many blow holes have been revealed so after all this time and effort the casting is scrap. The foundry has offered re cast the job but I have no plans to return to Bridport for a few months. Time for thought and whether I can trust my treasured pattern to others to deliver. I will report again next month.

THE STORY OF THE NOOK RAILWAY Part 1

By Rob Ashfield

I was brought up with railways. From a very early age I remember we had a second hand TwinTrix layout, then new Hornby Dublo 3 rail. My father seemed to be able to justify, despite the tight financial constraints of those days, excuses to add HD 00 stock, nearly all bought at Fortesque Bros, West Street. The 00 grew and soon occupied the front room of the small terraced house we lived in Reading at the time, with a grand Meccano (another passion of my Dad at the time) girder bridge across the front window, which gained attention from passers by.

When I was first taken to the bungalow in Spencer's Wood, my father explained he thought the garden was big enough to get a 5" gauge railway circuit with-in it. My family duly moved there in 1958. The bungalow had (still has despite extensive modifications) 4 bedrooms, so we immediately gained a train room. A hole in the wall was even created later to extend the 00 through to my bedroom, but the extension was never completed.

My father worked in the Chemistry Workshop, Reading University from when I can first remember. He worked with two others creating all manner of interesting equipment required for the department's research academics. I



I also have memories of frequently being taken to Sargents Tool Store in the Oxford Road Reading where my father procured the lathes etc for the University Workshop. During the early 1960s I suppose he was able to use

the tools and equipment available to help him build a 5"GW 0-6-0PT. I remember him showing me the rolling chassis working on compressed air in the Chemistry Workshop (the department, having moved to Whitenights, had compressed air on tap) Its first



steaming using a coffee tin as water tank must have been around 1970 judging by my appearance studiously 'driving' it. Two bogie trucks followed, and a temporary track made to lay out



in the summer along the garden path. and left home in the mid-seventies. My father, always wanting to create something new, built a traction engine (Minnie') for my **sister** He 'invented' a couple of board games, and a couple of other games. He loved making the prototypes and patterns, acquiring an injection moulder and with family help-





The 5" temporary track continued to be used until the late 1980s when Dad found I had a credit card! (he never had one as he did not approve of the 'never never') He found he could just ring suppliers and order materials such as the rail, and work on a permanent railway began.

ing to 'sort of' mass produce two particular items, A roller maze, and a Random Ball Dice. These were sold through John Lewis no less!

My mother passed away in 1985 meaning my father had no opposition to him moving his workshop indoors.

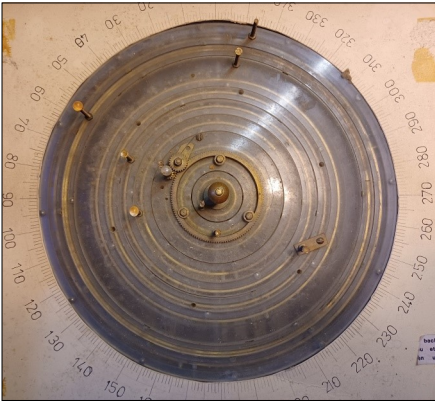


With the weekend help of myself and by then my two sons we slowly extended around the garden. Twenty foot radius was the curve design parameter and yes, it fitted, and 'Pansy' as by then it had become affectionately known by the family, went around successfully.

From the mid seventies after 'Pansy' had been fully commissioned (except for a working injector, he wouldn't buy one, just kept making another one, but they never worked successfully) my attendance would frequently be



requested to - 'come and steam Pansy as I've invited so and so around for a drive'. This often involved chasing and catching Pansy to stop it, when the driver lost control, panicked, or found it too hot. Then I had to pump water into the boiler! - about 200 pumps usually.



As you probably see my father, although happy to fix any problems with Pansy, was more interested in creating something new- including calculating and cutting the gears and building a working orrery. as a prototype to be produced, only on demonstrating to the prospective producer was told it was too complicated and wasn't commercially practical to mass produce - at that time. This was about the mid nineties.

My father died in 2000, and my wife and I decided to take on the bungalow

for the bigger garden, my wife Chris by then was a very keen gardener, and the obvious reason...! We had the bungalow totally gutted, we needed to. His workshop was a particular problem as his beloved Myford lathe had splattered oil up the wall! We modified, extended, and added a conservatory. This necessitated the realignment of the track in one location. I moved the Myford and an old ex university pillar drill (New Progress Drill No.1) out into an outbuilding. I had to sell the miller, shaper, injection moulder and engraver, which he had installed in various locations.

Previously I had tidied up and insulated the outbuilding, now my workshop, and made it ready to receive the 5" at ground level with my 00 around it on higher levels, as well the aforementioned machines, a workbench and more. It is 22ft long!

This necessitated making the Nook railway's first point. Previously Pansy was carried outside, and steamed on the trestles as in its first days.

I bought a Class 08 shunter, and a couple of second hand wagons. Although



I wanted to buy/introduce a battery powered loco when my father was alive, he made it clear there was no way he would allow it on his railway! I'm sure he would have enjoyed watching people, especially younger children enjoy 'his railway', driving the electric diesel.

(to be continued)

ROGER PATTIE'S MEMORIAL TRAIN

Words and picture by George Saffrey

RSME members travelled to the Welshpool and Llanfair Railway to ride on a special train run in memory of Roger Pattie who was an active and influential member of the W&L for many years and latterly a highly valued member of RSME.

The train, made up of three replica Pickering coaches made for the W&L at Boston Lodge on the Ffestiniog Railway, set off from the Llanfair terminus with colleagues from British Airways, volunteers and staff of the W&L, RSME members and friends from the 16mm Society. The Pickering coaches were beautifully made, with end balconies and highly varnished wooden seat – lovely to look at but not soft to sit on. We travelled down to Welshpool where the Raven public house laid on a fine buffet lunch for us. After lunch we gathered at the station for tributes to Roger from colleagues from his original airline pilots training course, the manager of the W&L who had worked closely with Roger, and Grace from the 16mm Society who had supported Roger in the last months of his illness. I think we all recognised Roger's sterling qualities in their memories. He was always well organised, careful and thorough in his work and very enthusiastic for anything he committed to. We were not surprised that his pilots training had carried over to the W&L in the form of carefully prepared plans and checklists, but I don't think any of us knew he had an HGV driving license which proved useful for driving the pilots school carnival float lorry.

We returned to the train, now with the locomotive, "The Earl", facing forward and carrying a Cambrian Coast Express headboard, for the sharp ascent



from Welshpool station for our final farewell to Roger. After a brief respite from the gradient, Roger's ashes were committed to the fire-box for the final blast to the summit accompanied by a long goodbye from the engine's whistle.

A memorable day and a fitting tribute to a fine engineer and friend.

Antoinette's Adventure

by Karl Trussler

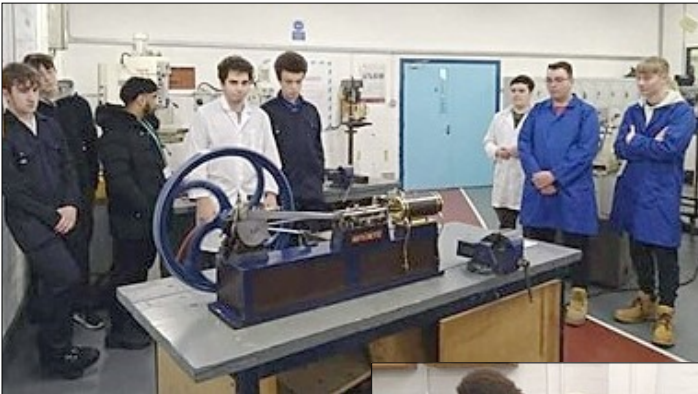
Antoinette was built by our very known club president Les Dawson in 1987 originally to run on air then a boiler was found and paired up and ran like it ever since.

I was asked by Mr Gary Williams a teacher at Reading College. (Gary helps run Antoinette with me at shows) In the new academic year, as the level 3 students needed a project, he talked to the College and they agreed and thought it was a very good idea. So in October 2021 Antoinette was taken to Reading College and demonstrated for a few weeks to various classes. The students saw Antoinette running on compressed air and they had to take measurements of the engine and photos. But that's not all, they had to find suitable materials to make a smaller engine, and had to use old scrap material as part of a reuse and recycle idea and then the students had to make their own drawings.

Students looked at Antoinette and seeing it run on air and told how a engine runs and what the parts are made from.

After a time when Antoinette come back to me I had a surprise, Mr Jamie Perry- Giddings, won a prize because of his enthusiasm, commitment and for

being an inspira-
tion to others.



Photos Karl Trussler

SIXTY YEARS AGO

Photos by John Billard

October 1962

Despite limited resources I was able to travel well outside my usual haunts and on the 14th was able to visit Doncaster and sheds at Retford as well as Old Oak, Oxford, Reading, Slough, and Swindon. This included seeing 92220 *Evening Star* at Oxford. But here are some of my Eastern pictures as a contrast. A busy month.



Four wheel arrangements in this selection. *Above* V2 2-6-2 60921 at Doncaster and *left*, K3 2-6-0 61875 alongside a K1. Despite being ex works the K3 was scrapped by the end of the year



Right North British built B1 4-6-0 61365 at Doncaster.



Left For our RSME Eastern Region 2-8-0 enthusiasts here is 1924 built Gresley O2 63946 with the original Great Northern design cab.

DIARY

October

Sunday	2nd	Public running	12 noon
			Setting up from 0930 onwards
Saturday	8th	Club running	10.30 onwards
Tuesday	18th	Club running	10.30 onwards
Thursday	20th	Talk by Peter Jennings	
		GW Railmotors	20.00 Club House
Thursday	27th	Visits to Farnborough	
		Contact Mike Manners	
Thursday	27th	RSME AGM	19.30 Club House
November			
Saturday	6th	Public running	12 noon
			Setting up from 0930 onwards
Tuesday	12th	Club running	10 30 onwards
Tuesday	22nd	Club running	10 30 onwards

SANTA SPECIALS 2022

For the forthcoming season Santa specials will be held on four days, Saturday/Sunday 10/11 December, and Saturday/Sunday 17/18 December. Tickets have been eagerly sought by the public.

It is likely that the 4th December public running will not be held. Consideration is being given to having a members club running on that date. Watch for further announcements.

Note from the Editor. Thank you to all contributors. Please remember that the copy deadline is now 20th of the month and material, unless previously notified, can be held over if received after that date.

Please provide photographs as separate files and not embedded into the text. No pdf files please.

Opinions expressed in PROSPECTUS are the personal views of the contributor and cannot be taken as reflecting the views of the trustees or editor.

The deadline for the November issue is 20 October

Contributions may be submitted in hard or soft copy to the editor.

John Billard Old Station House Twyford Reading RG10 9NA
01189 340381 or 07834 998971 john@jegbillard.plus.com

*Please write for Prospectus. Photos welcomed.
Comments by RSME members on any subject appearing in
Prospectus are welcomed by the editor.*