

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



**President
John Billard**

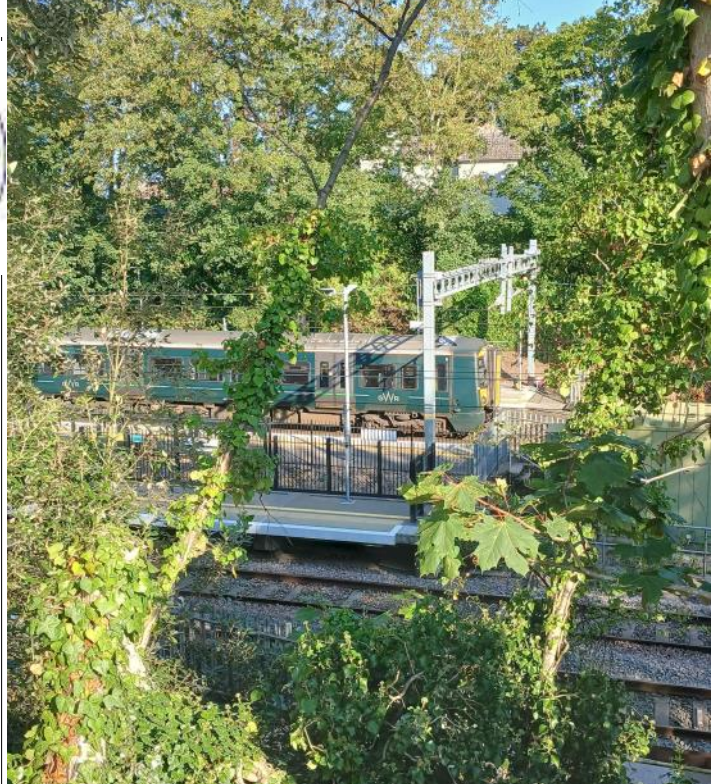
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**Free to members
242**

The Prospectus

September 2025



The 0856 Didcot Parkway to London Paddington pauses
at Twyford on 24 August 2025 Photo John Billard

**TRUSTEE NEWS
FASTER THAN A DUCK?
AN INVITATION TO PINWOOD
FOR SALE AND FREE**

THE VIEW FROM THE CHAIR

John Billard

First, the news that our long standing treasurer Jim Brown is having a spell at the Royal Berks Hospital at the moment. From all of us at RSME we wish Jim a speedy recovery and hope that he is safely home soon..

The trustees met on 11 August. These things come round very quickly!

A particular topic is keeping track of the requirements off the charity commission which means we have to keep our governance up to date. This is something that has always been treated seriously which means our accounts have to be kept up to date.

A particular issue that has arisen is whether we should require all our drivers at public running to have a disclosure and barring check (DBS) certificate. We have discussed this at several meetings and while this is not a legal requirement it might come under our charity rules. If this is introduced we have decided that any fees should be paid for by the club. We are looking at the process is at the moment. At the same time we know that this might be controversial for some particularly those who have attended public runnings for many years. We would like to have your views on this so please take this as a consultation and tell us all about it now. We would rather not have unhappy members.

There was a move recently to resurrect the O gauge section but we haven't heard much since. So if you are interested or know somebody who else who is then please come forward.

In the meantime our finances remain good very much bolstered by income from public running. This involves dealing with our bank and things are certainly not what they were these days. Chasing them up and telephone conversations all fall upon finance section comprising Jim and Stuart. We have decided that the September public running will be raising money for the Sue Ryder charity instead of going into club funds.

Peter Culham reported that this year so far we have had 13 parties with 10 more booked for August September and October. We have also entertained seven schools and four groups of Cubs etc and with special needs groups this adds up to quite an effort to which we are very much indebted to Peter. Plans are also being made for the Santa specials when tickets have to be made available from this month. This is a major challenge for December, particularly the setting up in the mornings.

So ends this report of the meeting. I did include a report on Prospectus but see page 3 The next meeting is on 15 September.

CLUB AGM 23 OCTOBER

PROSPECTUS

The press date for the September issue passed with no contributions (other than an advert) from members and little else in the pipeline.

The September issue is here as there is an advertisement for a workshop sale and I am most grateful to Alec Bray for his contribution below.

I have edited Prospectus since 2006 but planned to stand down as editor next spring at my 250th issue. This is a last request to members to contribute, I hope, on a regular basis so that milestone can be achieved.

John Billard.

Editor Prospectus

Faster than a Flying Duck

by Alec Bray

126 mph. 3rd July 1938. Blue Streak stormed down Stoke Bank, broke the world speed record for steam traction - and nearly broke itself in the process: the big end bearing on the centre cylinder connecting rod ran hot, needing "Mallard" to enter the railway engineering workshops at Peterborough for repair.

The dynamometer car tracked the speed every half second on a paper roll moving 24 in (610 mm) for every mile travelled. Speeds could be calculated by measuring the distance between the timing marks. Immediately after the run staff in the dynamometer car calculated the speed over five second intervals, finding a maximum of 125 mph (201 km/h). Although 126 mph (203 km/h) was seen for a single second at milepost 90¼, Gresley would not accept this as a reliable measurement – he understood the peak in the trace to be an artifact and acknowledged 125 mph - and 125 mph (201 km/h) an hour was the figure published.

126 mph? In 1948, plaques proposed and designed by Harry Underwood, a headmaster and keen steam enthusiast, were fixed onto the locomotive which stated 126 mph (203 km/h), and this became the generally accepted speed.^[10] Despite this, some writers have commented on the implausibility of the rapid changes in speed.^[11] A recent analysis has claimed that the paper roll was not moving at a constant rate, and the peaks and troughs in the speed curve resulting in claims of 125 mph (201 km/h) held for 5 seconds and 126 mph (203 km/h) for one second were just a result of this measuring inaccuracy. It concluded that a verifiable maximum speed being a sustained 124 mph (200 km/h) for almost a mile.

Could a steam locomotive run faster? Driver Joseph Duddington reckoned that "Mallard" could do 130 mph. Bill Hoole, a well-known driver on the Eastern Region of BR, apparently quietly admitted that he may have gone faster - about 130 or so - with a sister engine in the 1950s, however, those that were aware of the claim (including Bill Hoole) reckoned it would cause too much trouble, it was better to keep quiet at the time. There were other

mutterings about faster runs with other A4s as well, but again these were not readily admitted to.

There are other claims to faster running than the official record in other countries too, but are unverified by accurate timekeepers, or the claimant just kept quiet about it so as to not get in trouble. Nevertheless, there is apparently a log somewhere of 131mph being achieved by "Silver Link"...

Not even the French Pacifics re-engineered by the great André Chapelon challenged that. But the French never prioritized high speed in the steam era, and only one of Chapelon's designs (never built or even reaching the detail design stage) was intended for "150mph" (it is in Carpenter's 1952 translation of *La Locomotive a Vapeur*).

Mallard had the double Kylchap ejector: this steam locomotive exhaust system had been designed and patented by André Chapelon, using a second-stage nozzle designed by the Finnish engineer Kyösti Kylälä and known as the Kylälä spreader; thus the name KylChap for this design. One of the issue of steam locomotive design is to get the steam, now with reduced pressure, OUT of the cylinder as much as getting it in in the first place.

There are about 21 unconfirmed reports of steam locomotives travelling faster than 130mph. Like the Pennsylvania Railroad's T1 and S1, the Milwaukee Road classes F7 and A, the New York Central Streamlined Hudson and 4-4-0



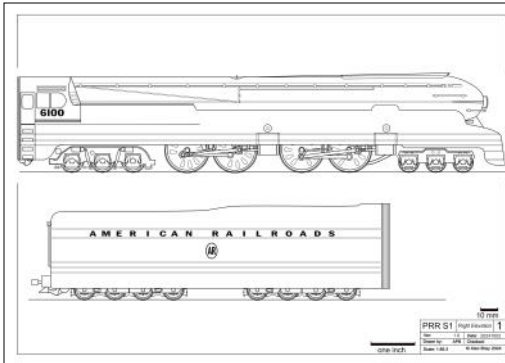
#999. So it is entirely possible that the record was beaten at one time.

The vast majority of the stories of very high speed steam locomotive runs in the USA can be easily dismissed. However, the United States had a properly-streamlined class of Atlantics in the Milwaukee As. The president of ALCO, the builder, noted that he had observed these run faster than



128mph, and nothing in their design indicates that this was not possible - weight reduction included only 4 coupled wheels. The F7s were high speed streamlined 4-6-4 "Baltic" (Hudson) locomotives also built by ALCO in 1937 to haul the named train "Hiawatha" and they ran at

over 100 miles per hour daily, as determined by the scheduled speed between stations. One run in January 1941 was recorded by a reporter for [Trains](#) magazine and he noted that 110 miles per hour was achieved twice – and in the midst of a heavy snowstorm. Baron Gérard Vuillet, a French railway expert, once recorded a run between Chicago and Milwaukee where the locomotive reached 125 mph and sustained an average 120 mph for 4.5 miles.



There have been repeated rumours about the Pennsylvanian Railroad S1 locomotive. One claim is for 141 mph but there is no available data timings to support this. In a collaborative effort, the Pennsylvania Railroad, Baldwin Locomotive Works, the Lima Locomotive Works and the American Locomotive Company



(ALCO) all contributed to the experimental S1 design – a

unique 6-4-4-6 Duplex drive steam locomotive. The S1 was the largest passenger locomotive ever constructed, with an overall length of 140 feet 2 inches. The cast steel locomotive bed plate made by General Steel Castings was the largest single-piece casting ever made for a locomotive. The boiler for the S1 was the largest built by the Pennsylvania Railroad, with 660 square feet of direct heating surface and 500 1 inch tubes and flues. The S1 was completed on January 31, 1939, at Altoona shop, and was numbered 6100.

At 140 ft 2 1/2 in overall, engine and tender, the S1 was the longest reciprocating steam locomotive ever built (8 feet longer than the Big Boy and built on rigid frame): it also had the heaviest tender (205 tonnes), highest tractive effort (76,403 lbf (339.86 kN)) of a passenger steam engine when built and the largest driving wheel (7 feet in diameter) ever used on a locomotive with more than three driving axles. The problem of wheel slippage (either one or both of the Duplex drives slipping badly), along with a wheelbase that was too long for many of the rail line's curves, limited the S1's usefulness. The S1 was limited to service west of Crestline Ohio. Designed for operation in excess of 100 mph, there are unsubstantiated reports of the engine exceeding 150 on the racetracks of the PRR's western mainlines.

There are very few useful pictures of the S1 available on the Internet: the accompanying drawing is a composite derived from three different (and dis-

agreeing) sources and is therefore an “exclusive” or “scoop” for “Prospectus”.

Like the Great Westerns “The Great Bear”, the PRR S1 did a good job as a marketing tool for the Pennsy's modernized passenger trains. It clearly did good work on its allowable route on the Fort Wayne Division, assigned to haul “The Trail Blazer”, a good source of revenue for the PRR, but was last run in 1944 and scrapped in 1949. The S1 was not continued into production, but it did give rise to the PRR T1.

The T1s (4-4-4-4) rigid duplex drive machines were capable of speeds in excess of 120 mph and were even rumoured to have hit speeds of at least 140 mph during their time in service. Unfortunately, they were all scrapped in between 1951 and 1956. However, there is a non-profit group called the T1 Trust, inspired by the new-build of the formerly extinct LNER Peppercorn Class A1 (“Tornado”), that is currently building an operational replica of the T1. It is estimated that it will be done by 2030 and it is also explicitly stated that this locomotive will be used in an attempt to break Mallard's official speed record. It is hoping to break 140 mph. It's already approaching half-way done, but has a long, *long* way to go before the 53rd T1—5550—fires up, let alone chases any world records.

Web Pages

<http://www.germansteam.co.uk/FastestLoco/fastestloco.html>

<https://cs.trains.com/ctr/f/3/t/271182.aspx>

<https://www.thedrive.com/news/steam-train-fanatics-are-rebuilding-this-mythical-speed-record-chaser-from-blueprints>

https://en.wikipedia.org/wiki/Milwaukee_Road_class_F7

<https://prrt1steamlocomotivetrust.org/>

Member Cliff Perry who some of you will remember by his ownership of Clan Line passes his eightieth birthday in October. He now owns the late Brian Hadnam's Collett 0-6-0.

By way of celebration he has secured a running day on the Pinewood track on the 1st November. He is inviting his friends and folk who have helped his enjoyment of live steam over the last 30 years which includes a significant contribution from RSME members. The Nigel, Les, Mike,(3 off) Andrew, Peter, Alex, Dave, Chris, Johns of this world have all helped along with others.

First come first served to a limited list will apply. Please indicate to Cliff if you wish to attend, to bring a partner and/or a loco. There are 7.25 and 5 inch tracks on the ground. No raised track, but good offloading facilities.

At 4 pm on that day a simple meal will be provided in the (Licensed) cafe on the Pinewood site.

Reply to clifford.perry@btopenworld.com

FOR SALE

LNER A3 PACIFIC

Modelworks. 5" Gauge about 70% completed

LNER A4 PACIFIC

Modelworks. 5" Gauge about 80% completed

Both with certificated boilers, and tenders. Most parts to complete are available or can be obtained from Model Engineers Laser. Includes instructions for the A4. Both need boilers fitting, piping, bodywork and timing.

Tom Senior M1 Milling Machine

3 ph metric with DRO. Horizontal and vertical attachment with cutters. Milling vices, angle plates, boring tool, rotary table.

Harrison M250 Lathe

3 ph metric, suds tank, chucks and collets, 12 in faceplate, Duplex D27H toolpost grinder internal and external, change wheels, centres etc.

Transwave 3 ph converter

For the machines above.

Clarke 12 speed bench drill

13 mm chuck, set of counterbore cutters

Miscellaneous

Various metals, stainless steel, brass, gunmetal, phosphor bronze, cast iron, nickel silver, various sizes, round, hex, flat and sheet.

15" square surface plate, tapping stand, arbor press (1/2 ton), height gauge, gasket punches, compact bender, various V blocks, number/letter punches, loads of stainless steel nuts and bolts.

Listed in brief detail, any reasonable offers considered.

Stuart Higgins, 0118 942 3129



Available free of charge

joedray1@gmail.com

Reputed from an old submarine? **As seen.**

“Looks like a Halifax/ Sphere/ Acorn - which were all badges applied to the Atlas lathe (which was a copy of the Southbend). Might have Timken roller bearing headstock, which is good. Might also have some value engineered plastic parts, SM”

DIARY

SEPTEMBER 2025

Sunday	7th	Public running	Setting up from 09.30 onwards
Saturday	13th	Club running	10.30 onwards
Monday	15th	Trustees meeting	19.30
Saturday	27th	Club running	10.30 onwards

OCTOBER 2025

Sunday	4th	Public running	Setting up from 09.30 onwards
Saturday	11th	Club running	10.30 onwards
Monday	13th	Trustees meeting	19.30
16th—19th Midlands Model Engineering Exhibition			
Thursday	23rd	RSME AGM	19.30
Saturday	25th	Club running	10.30 onwards

Meetings are held every Thursday at 19.30 in the club house.

The Wednesday Warriors do the hard work at the club site from 09.30.

*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 October issue is 20 September***

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

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Please note my new e mail address