

November/December

2024

SPOTLIGHT



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Introduction

**MERRY CHRISTMAS and a HAPPY NEW YEAR.
For All of our Club**

MEMBERS, FRIENDS AND FAMILIES

**OUR LAST CLUB EVENT for 2024 IS THURSDAY 19th AT THE WHITE HORSE
TROWSE.**

(Follow the arrows)

7.30- 10.00ish

Free buffet, some games, and a Prize Raffle

**THANK YOU ALL FOR YOUR CONTINUED HELP AND SUPPORT DURING
2024**



Congratulations!



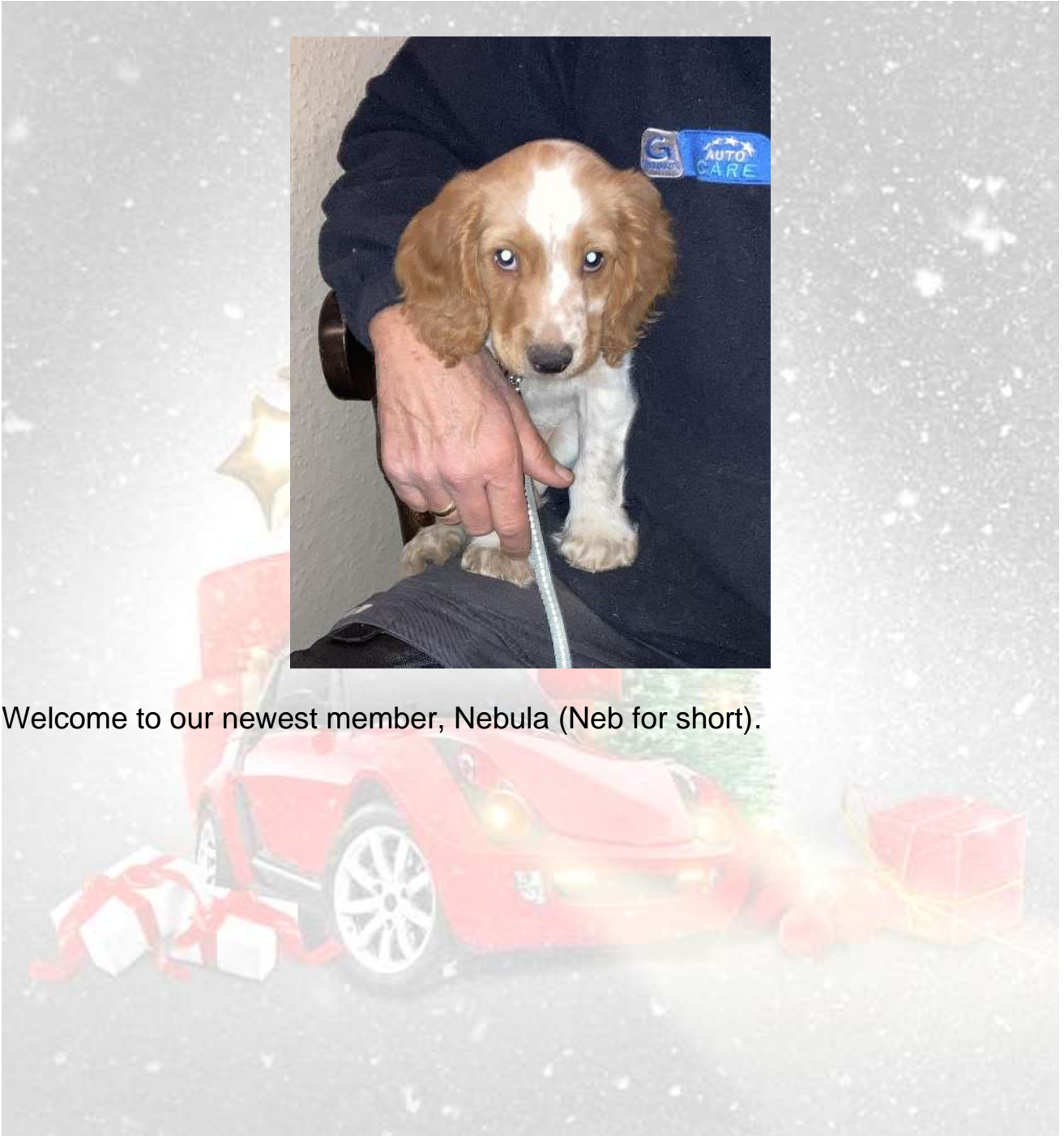
IT'S A GIRL

Just after visiting the recent SCCoN David Leckie Lyng Trial, we have some wonderful news from Ros Leckie, her daughter Katy had her baby on Monday morning. She had a beautiful girl called Millie, 6lbs 5ozs. Mum and baby are doing very well. I'm sure you'd all like to pass on congratulations to Katy!

New Member alert!



Welcome to our newest member, Nebula (Neb for short).



Upcoming Events

This weekend! 14/15th December – Chelmsford Motor Club 'The Preston Rally'



The Preston 2024

14th-15th December 2024
Sponsored by Preston's Garages, Writtle, Chelmsford
The 46th running of The Preston

Supporting
East Anglian Air Ambulance
Registered Charity No.1083876



Regulations available 25th September
Entries open 1st October
www.chelmsfordmc.co.uk



- Over 180 mile route with 120 miles competitive sections
- Many new good quality sections
- 60% loose surface • 40% closed road • Targa car friendly
- Start & finish at High Lodge, Thetford

Keith & Martin Lane, last year's winners stated: The best of the best - 8 hours of non-stop competition, rightly named "The one and only".



29th December – The Rixy Stages at Stanta, an opportunity to work off the turkey and share your Christmas jumpers!

EXCITING NEWS - THE SECOND RUNNING OF

THE RIXY STAGES



- Multiple stage layouts within a single venue
- 100% tarmac stages
- Fast flowing sections
- Technical roads through on-site villages
- Maximum entertainment for competitors

29th December 2024

REGS, MARSHALS REGISTRATION MID OCTOBER

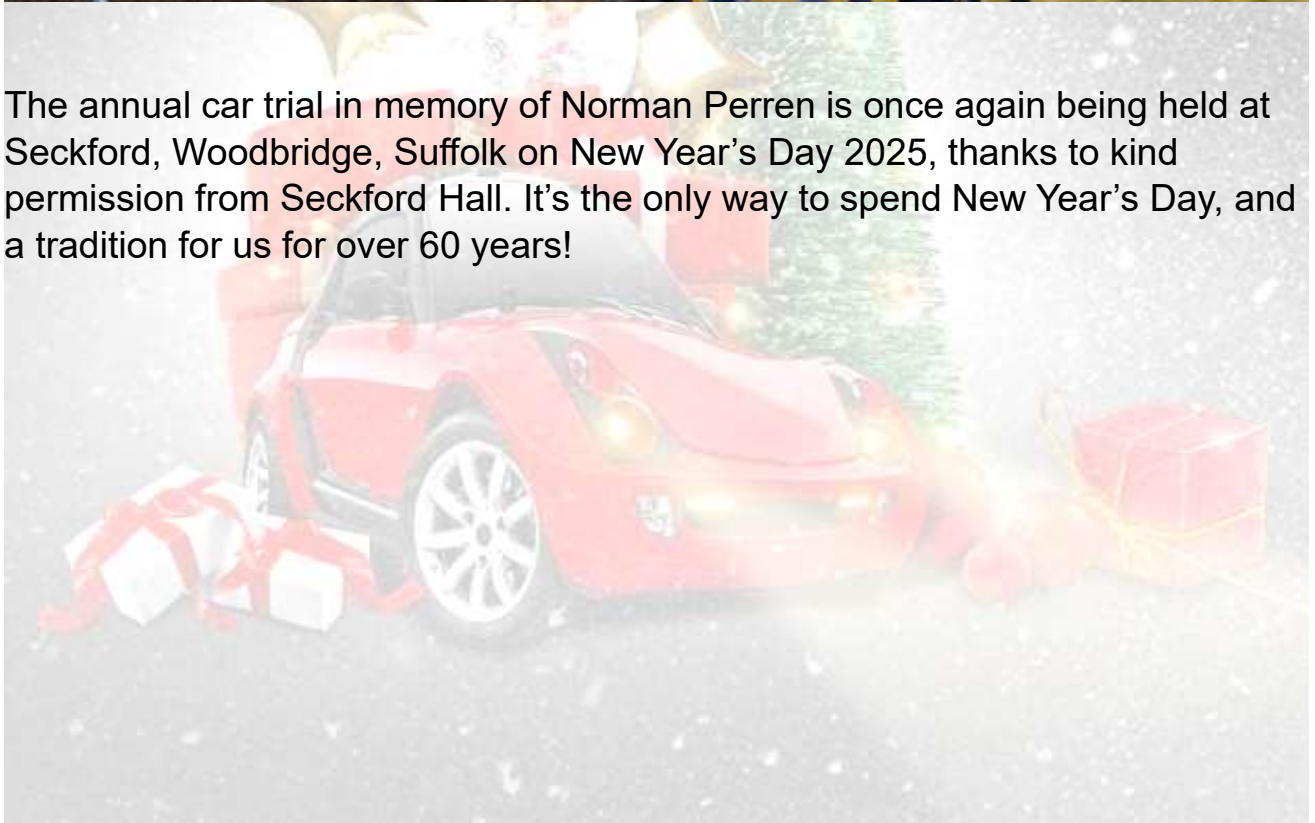
At the Stanford Training Area (STANTA), near Thetford, Norfolk



New Years Day 1/1/2025



The annual car trial in memory of Norman Perren is once again being held at Seckford, Woodbridge, Suffolk on New Year's Day 2025, thanks to kind permission from Seckford Hall. It's the only way to spend New Year's Day, and a tradition for us for over 60 years!



18th January 2025 – Brands Hatch



A new sponsor for this championship in the form of Protyre, who've recently been sponsoring the 2024 MSUK Asphalt Rally Championship.

Circuit Rally Championship Calendar 2024/25



Event	Date	Venue
Salford Van Hire Neil Howard Stages	Saturday 2nd November 2024	Oulton Park
NHMC Cadwell Stages	Sunday 17th November 2024	Cadwell Park
Donington Rally	Sunday 1st December 2024	Donington Park
MGJ Engineering Brands Hatch Winter Stages	Saturday 18 th January 2025	Brands Hatch
Snetterton Stage Rally	Saturday 8 th February 2025	Snetterton
Lee Holland Stages	Sunday 2 nd March 2025	Anglesey
Dukeries Rally	Sunday 16 th March 2025	Donington Park
Alan Healy Memorial Rally	Sunday 6 th April 2025	Cadwell Park
Altratech SMC Stages	Sunday 13 th April 2025	Anglesey

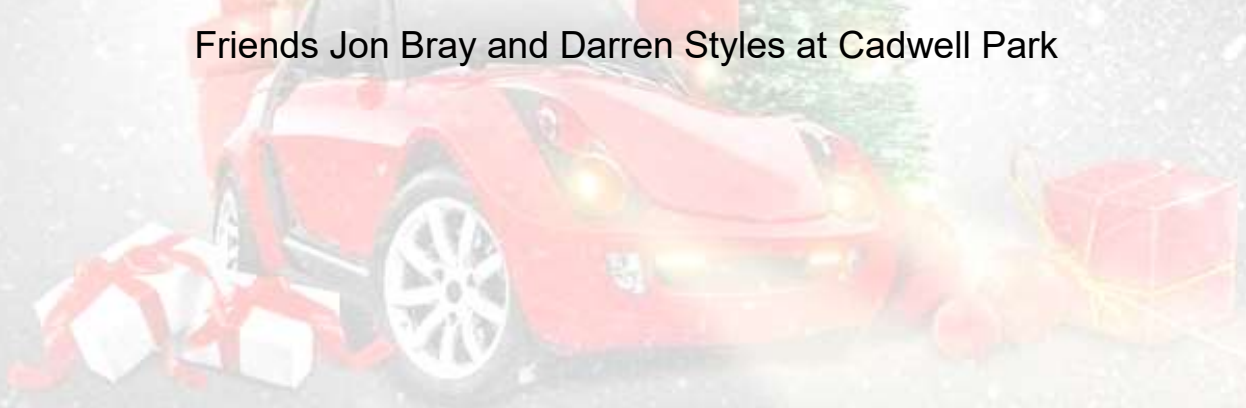


Event Reports

Salford Van Hire – Neil Howard Memorial Stages. November 2nd



Friends Jon Bray and Darren Styles at Cadwell Park





Back from a brilliant day rallying at Oulton Park for Round 1 of the Circuit Rally Championship, dry conditions all day made it a fast and fun event, the first time for me at this level with 105 cars entered, Class F for up to 1400 saw a variety of cars entered, several of the "kit car" variant which is has to be said are pocket rockets! **Jon Bray** drove the wheels of his cracking little ZR all day and we came home in 4th in class, losing a podium finish on stage 8 with a bit of bad luck in traffic. It's fair to say nothing was left out there and every bit of pace was dragged out of the car, Donnington next, and I can't wait! And thanks to **Neal Bannister** for servicing and **John Styles** for the amusement and photos!

Dave Shaggy Saint ----Back on the Road Again

Farnborough District Motor Club, Rushmoor Targa, Sunday 10th Oct, with **Huey** navigating for me. Not long had the car back from the garage after a major melting electrical loom issue. Luckily the fix survived the day so I'm happy with the car. After the first run we were 10th in class, up to 8th after the second run and up to 6th after the third. A wrong call on the fourth run saw us disappear into a small wooded track unnecessarily, costing about 30 seconds, back down to 11th. Fifth run was ok and back up to 7th in class.

The final run and I secured our only penalty of the day, outside of a gate and incurred a wrong test equating to a 29sec penalty, and last in class. End of the day and we ended up 11th in class and only gained 10 places overall. A great

event which deserves big thanks to all organisers and marshals, and definitely returning next year! Not our finest days rallying, but in my previous three rallies I've had 2 DNFs, so a 50% finish record is still an improvement 🤔 clearly there is more work to be done! Photo courtesy of [Andy Manston M&H Photography](#) 👍



Special Report

November marks the end of the Highlands tourist invasion, bringing back a much-needed sense of normality for the inhabitants. We see how Nessie helps haggis travel to Drumnadrochit Foyers or Fort Augustus for essential shopping. Nessie does not charge the haggis population for much-appreciated lifts to and fro. Wild haggis keep him safe by raising the alarm when they spot Nessie hunters. If you're ever by the loch sit down on the edge of the water and listen to the haggis hiss the alert.



It was worth the wait



The David Leckie Lyng Trial, Sporting Car Club of Norfolk. A great day out with fine weather for a change - this event has been cancelled for the last two years due to atrocious weather. With a week's notice Dave (shaggy) Saint stepped in to be Clerk of the event. All entries turned up and only 3 1/2 retirements. Everyone was happy and left with smiles. Many thanks to all the marshals, organisers and in-house catering crew. Full results will be published soon, [Tim Hanman](#) overall winner 🏆 a cracking day out for all

Dear marshals and competitors,

On behalf of the organisers thank you all very much for attending the David Leckie Lyng Trial event on Sunday.

In 2022 & 2023 the event had to be cancelled due to severe weather conditions, so it really was good to be back.

This year we were somewhat blessed with blue skies and sunshine, and a dry build up to the event, which did make it slightly more difficult for me to create challenging yet enjoyable sections, but hopefully I succeeded?

The introduction of Hill 5 on Run 4 did cause a bit of a tailback, and certainly kept Jon Fry and his trusty Land Rover busy, hence my decision not to run the hill again – to Jon, our extended thanks for all cars recovered swiftly and safely.

I did also mention in the morning giving consideration to a sixth run, however the sun and temperature was dropping therefore giving consideration to the marshals not going for a sixth run seemed the only choice to make, I'm sure

you understand. This was of course backed up by the fact that it had started to rain during the awards presentation.

My personal thanks to Craig Bennett, event secretary. In a last minute change of plans I was asked to step in to Clerk the event, and he certainly made my role a lot easier than I was expecting, impressive on only his second event as secretary.

Big thanks to Christine Newson & son Philip who did a fantastic job in the catering trailer with hot bacon rolls in the morning and soup/bread rolls at lunchtime, hot drinks throughout the day, along with her well known fare of home baked cakes. And also extended thanks to Jon Fry's partner Sonia & Craig Bennett's partner Lauren (aka Kate) for also baking a vast array of cakes & tray bakes for you all to enjoy.

As per usual the food and drink was free, with a donations jar on the table.

This year's charity of course being Cancer Research in recognition of everything that David has done, not only for this event but the club in general over many years. If you cast your mind back to Peters heartfelt speech prior to the briefing, I'm sure you will all understand how important this is.

And it certainly showed that you were listening, we are absolutely blown away by your generosity! In donations alone you raised a whopping £222, and saying thank you again just doesn't seem enough, but there really are no other suitable words to express our gratitude. As a pre agreement to this, we had decided to keep the outgoings from the budget to a minimum and trim expenses where possible to add all event profits to the charity as well. This gives a total donation figure of £601.22 You all deserve a big pat on the back for this.

In the afternoon whilst you were all burning fuel, and calories, David's wife Ros and their daughter Katy came along to see us, it is always very much appreciated and lovely to see them. I can't begin to imagine what it's like to attend an event held in a family members name, but sincerely hope they continue to keep in touch with the club and friends within, and vice versa of course. Katy is due to give birth in a couple of weeks, and we wish them all the very best for the future.

As always, a massive thank you to all the marshals who volunteered on the day. You are all well aware, there would be no events to enjoy without them. Marshals draw prize winners were Andrew Pearson, John Boot, Sam Swift & Jack Benson. A prize each of a tub of Quality Street or similar.

Please find attached the results from Sunday. Congratulations to those of you who won awards, bad luck if you didn't.

I'm sure we all did David proud!

As always if you have any positive/constructive feedback, please do so via reply. All comments will be handled in strict confidence with anonymity.

Many thanks,
Dave Shaggy Saint
Clerk of the Course.

AutoSOLO: From Novice to Expert

StreetCar is the perfect place to start your motorsport journey if you're looking to progress your skills and ability behind the wheel. Liam Brotherhood, who was featured in our 'star in the making' story back in April, exemplifies progression within StreetCar. When we first took a look at Liam's motorsport journey, it was clear that he was definitely a rising talent.

As soon as Liam was able to, at the age of 14, he started competing in AutoSOLOs. This has given him the opportunity to develop his skills in a controlled environment, before even being able to drive on the road. Liam's father made the keen observation that, as a result of competing, he feels that teenagers "*are so much better prepared for driving lessons and passing their driving tests*".

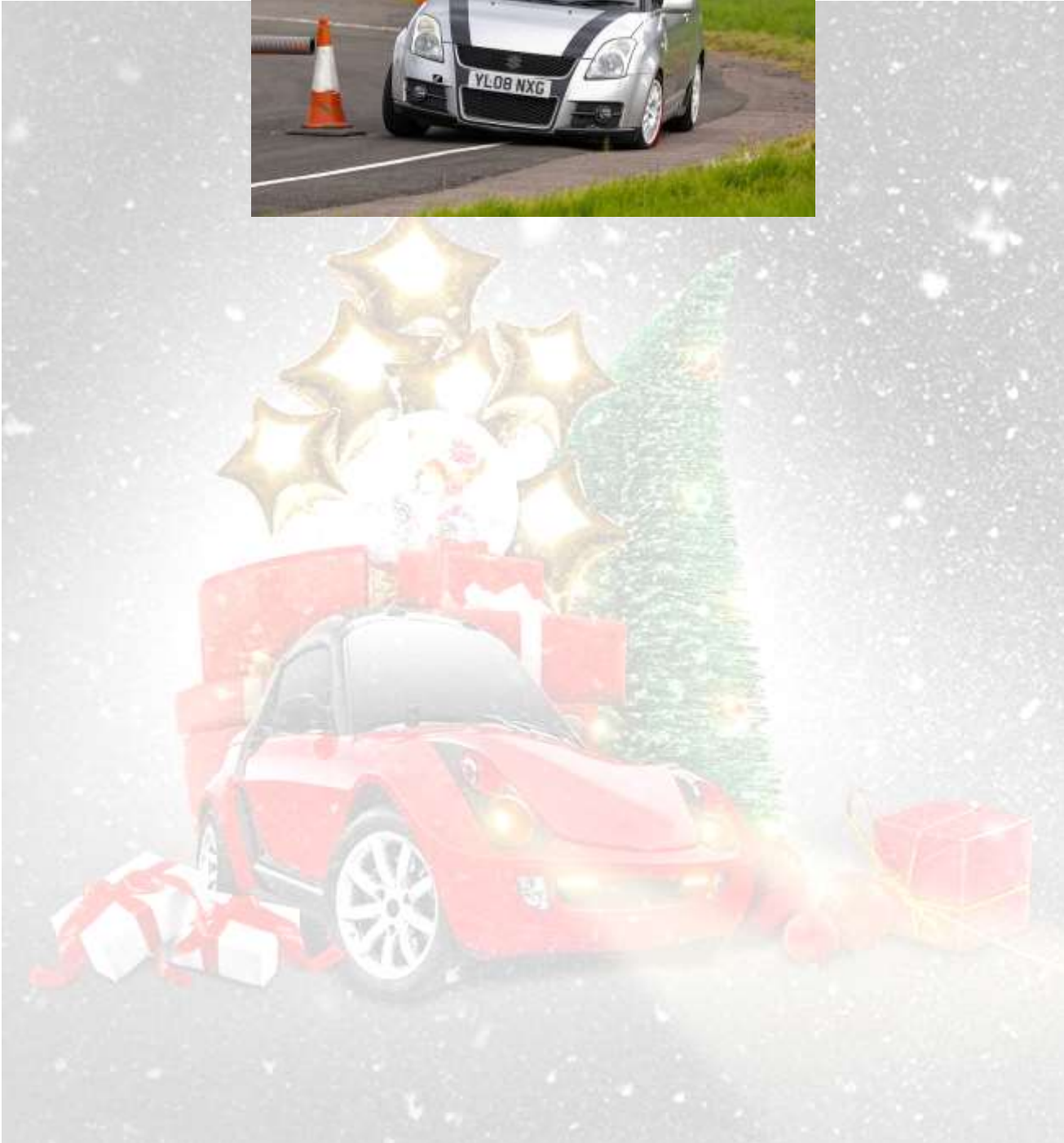
As Liam's second year of competing has almost reached its end, he has not slowed down, consistently achieving impressive results in the famous [Cannock and District Car Club](#) AutoSOLO series. Throughout the season he has continued to make waves alongside some of the fiercest AutoSOLO competitors, winning a number of fastest junior awards, and a very impressive second in Class.

Now, at just 15 years of age, Liam's car control has gone far beyond his years, often battling it out on the tarmac against the veterans at [Cannock and District Car Club](#). It seems his first year allowed him to develop the key skills needed to compete, and his second year has been all about improving.

Liam reflected on his second season with StreetCar by saying "*I've progressed well, winning a few fastest junior awards and coming second in Class B. I feel as if my times have become faster, and I'm more confident on the tests*".

He went on to say, "*My hopes for the future of grassroots motorsport are for it to gain exposure... as it's a fun, safe, and relatively cheap way of having a great time in a car without the dangers of the road.*"

If you're looking to build more confidence behind the wheel, why not try out StreetCar? With plenty of events taking place across the UK, this could be your chance to get in on the action! Submit your 'get started' form [here](#) to find out how you can begin competing.



DeLacy Targa Rally – Catterick Ranges – 10/11/24

Well it's been a bit of a roller coaster of a year for us this year before we arrived at our final event of the season. Things started pretty well with decent enough results at Dishforth and the Shaw Trophy followed by a really pleasing 5th place overall in the Blue Streak in August. Our season then fell in to a bit of a hiatus as it was suddenly decided by doctors that I needed to be fitted with a heart pacemaker which meant no rallying for September and October to allow for healing to take place. The medical people were not overly enthusiastic when I enquired whether I would be able to resume rallying, but they never are about things like that so after a bit of a run in a West Cumbria Rallytest and a 12 car outing with Barry we ended up heading over to Catterick for scrutineering on Saturday 9th prior to an overnight stay at Scotch Corner Travelodge.

All went well on the Saturday, the HQ being within the ranges, was well signed by the organisers and we managed to find it without a problem. Scrutineering was passed with a small addition of some yellow tape and we tried out the test section with our mobile phone to see if the RallyApp system was working. We tried a few checks and it all seemed to be all right so we packed up again and headed off for food and a kip.

Sunday we left in the dark but it soon got light and by the time we arrived at the HQ the dawn was up and most of the crews were already present. The initial start time of 8 am had been put back to 9 am which gave everyone a bit of extra time to prepare themselves and their cars with the briefing being held at 8-15 where many questions were answered by David Walmsley concerning the App and other aspects of the event before crews returned to their vehicles to get ready to go.

A 5.5 mile road section took us down to the entry to test 1 "Willow Gill" with a bit of a run over gravel down to the start. The track was a bit rough in places and gave us a slight foretaste of what was to come. The route to the start had been well signed by the set up crew and we waited our turn for the off, always the worst part of any event. Finally arriving at the start line it was going to be the moment of truth, was the pad I'd made to protect the pacemaker from the harness strap going to be good enough or not?

Off the line we had a short run to a lay-by left for "A" then up through the gears to slide in to a stop box where we were waved out to go left before hooking to the left around "B" for a 90 right and down to a long lay-by right and long lay-by left before arriving at the first of 9 Passage Controls. Another lay-by left followed then another PC before a 90 right leading to a 180 left around some portals before a nice long run down to the next PC down some nice loose

gravel with variable grip. Leaving the PC another good run on loose gravel brought us to a hairpin right around "C" and on to sealed surface for a 3 cone slalom before a 90 right took us up to the split where we went right to PC4 and then a straight run down to PC5 before a bus stop right around "G" and a short run down to PC6.

A fast straight run down to the second stop box saw us exit right and repeat the section from "B" through to the split where this time we went left and down to the test finish. There had been a particularly rough bit just before PC2 which shook us up a bit but other than that things had gone pretty well and the pad seemed to be working well for the 3.13 miles of the test.

A short transfer got us to the start of test 2 "Lavrock Gill" which at 3.36 miles was just a bit further but looked a lot longer on the diagram! Right off the start there was a combination of 5 cones which were arranged in a slalom but with a 360 around the middle cone. It was all on loose gravel and well spaced and was quite fun to hack round before exiting on a fast run down to PC1 which was just before a crest followed by a steep drop down. Another longish fast run on firm gravel had us sliding in to a stop box before moving out to hook to the left of "F" and go uphill to PC2 before taking a 90 left at the split and downhill quite quickly to PC3. Uphill to cone "G", a 90 right on to concrete before a long left downhill to go left of "H" 90 right avoiding sliding in to the 2 large tank hulks just off the road. Down to a hairpin left around "I" and further downhill on a long right before going round the outside of "J" and "K" before a sharp 90 left uphill on loose which caught me wrong geared for a second or two. A 90 left around "M" took us to PC4 then a bus stop right by "N" and a bit of a tight couple of rights in to and out of a lay-by right with "O" and "P" led down to a 90 left at "Q" then a long straight down hill with a couple of yumps had us at PC5. Down to the second stop box and left of "F" took us via PC6, and a fast run past the merge down to a tee right followed by hairpin left for a code board. A short run and hairpin left on loose, muddy ground to the next code board followed by a 90 right and a straight run down to PC7 then a quick flick right and left past "R" and "S" and we were at the finish. Two tests down and everything still going despite a heavy landing at the bottom of a concrete lined gully, which, I found out later, caused the front struts to bottom out so hard the tops of the piston rods hit the bonnet! After that we really didn't have any front damping which made some of the climbs rather interesting.

Onwards to the start of test 3 which at 4.4 miles was the longest in the 3 test loop with more cones to get round and 16 passage controls to deal with. The terrain was quite varied with surfaces ranging from firm gravel to quite loose and muddy especially just before the finish. There were some good long runs interrupted by PC's and a one point a difficult climb (for us) after a hairpin right which had the front of the car jumping about all over the place as the tyres struggled for grip. A really enjoyable long test which took us over 13 minutes to get to the finish before returning to the HQ area to wait for the 2 minute silence at 11 o'clock before the start of the second loop at 11-15.

The second loop was pretty much the same as the first with no changes to test 1 "Willow Gill" and only a couple of changes to test 2 where the 5 cone combination by the start had a different cone for the 360 and instead of going left of "F" and up to the split it went right of "F" and uphill to a hairpin right followed by a climb on loose before dropping down to PC2 and turning 90 left down to the split. The rest of the test remained unchanged. The third test was virtually the same with the only change being not far from the start which added another half mile to the test length and added a code board. There was a delay at the start of the loop due to car 0 having rolled in test and the need for the recovery and rescue crews to attend. Fortunately the crew were both OK but the car was pretty battered.

The delay at the start of the second loop meant we were all late in to lunch and so had a much shortened break to attend to the car and feed ourselves. I put some more fuel in the car which was lucky because the planned break between the third and final loops was cancelled but we had enough to get round in the end.

The third and fourth loops were the same as the second which helped as on the last test the light was beginning to fade and Maggy was beginning to have some difficulty reading the letters on the diagrams but by then I knew where we had to go and so we eventually got to the finish after 45 miles of tough tests and 26 road miles with the car still in one piece and with no problems with my pad and the lump of metal in my chest.

The whole object of the exercise for me was just to see if I could keep on with doing club rallying after the events of the previous 2 months, which, to say the least, were something of a surprise and with Maggy only having done 3 other events before in 24 the result was always going to be immaterial. We just wanted a good test for car and crew and we certainly got a good workout. Thanks and congratulations must go to Malcolm Higgins and David Walmsley and the rest of the De Lacy organising team who have done so much hard work to eventually get this event to run. Well done to them all for taking onboard feedback from the last event and acting on it and providing a well organised, slickly run event on the day and some cracking mileage. The diagrams by Motorsport Diagrams worked really well and the fact that we could print them off at home was a bonus. So well done to all concerned and all the marshals and other officials who made this happen.

Geoff and Maggy Bateman – Car 16 Patch the Pug

[AEMC/ASEMC Speed Championship 2025 Draft Calendar](#)

2025 Draft Calendar

Welcome to the 2024 AEMC/ASEMC *key.guru* Speed Championship.

Thank you all for taking part in the 2024 championship, please see link below to our feedback survey, we would appreciate your input on how to continue to grow the championship in 2025. Thank you to the 15 people that have already taken the time to take part.

We are pleased to announce the release of the 2025 draft calendar. We have 26 rounds on the draft 2025 schedule. We have added Coventry Moto-Fest for 2025 and maintained the new events at Blyton Park and Mallory Park introduced this year. Note that Mallory is now a 2 day weekend event.

2025 Draft Calendar

1	29th March	Cadwell Park	BARC (Midlands)
2	13th April	Hethel Lotus Festival	Lotus MC / Herts County AAC
3	26th April	Goodwood (Regis Sprint)	Bognor Regis MC
4	3rd May	Goodwood (Bailey Sprint)	Brighton & Hove MC
5	11th May	Debden	Herts County AAC
6	11th May	Rushmoor Dimanche	Farnborough DMC
7	31st May	Coventry	BARC (Midlands)
8	1st June	Coventry	BARC (Midlands)
9	7th June	Abingdon CAR-nival	Sutton & Cheam MC
10	21st June	Mallory Park	Sheffield & Hallamshire
11	22nd June	Mallory Park	Sheffield & Hallamshire
12*	15th June	North Weald	7Oaks B19
13	12th July	Lydden Hill	/7Oaks/TWMC//MMKMC
14	20th July	North Weald	Green Belt MC
15	2nd August	Goodwood (Eagle Sprint)	Brighton & Hove MC
16	16th August	Blyton Park	Yorkshire MC
17	17th August	Blyton Park	Yorkshire MC
18	23rd August	Snetterton	BARC (Midlands)
19	24th August	Snetterton	BARC (Midlands)
21	7th Sept	Lotus Hethel Sprint	Lotus MC / Borough 19
22	20th/21st Sept	Sandown	IoWCC
23	14th Sept	North Weald	Green Belt MC

24*	27th Sept	Goodwood	7Oaks / TWMC
25	28th Sept	Debden	Herts County AAC
26	5th October	Eelmoor Sprint Royale	Farnborough



Sales/Wanted



Wanted,
Round Sccon window sticker
And the old style screen Sccon Visor.
Please message me. Martin Newson or
speak to me at the next club night on
December 19th At the White Horse at
Trowse



Spotlight on our Members

Something new, how about a feature on some of our members. Each month we'll focus on one member and provide a 'Spotlight' on aspects of their career or history.

My Background in Vehicle Noise Testing

Back in the 1980's, part of my job at Ford's Boreham Proving Ground was the pre-testing of prototype vehicles, mainly Transit vans and Ford Cargo trucks to check their conformity with the drive-by exterior noise level requirements in force at the time. Non-compliant vehicles needed development of their specifications to achieve compliance.

I was then involved in the Vehicle Type-Approval Conformity Testing process in conjunction with UK Vehicle Certification Agency's (VCA) exterior-noise adjudicators.

We used Class 1 sound level meters made by Brüel and Kjaer, a Danish company who are world leaders in sound measurement. Technological advances while I was at Boreham included new meters with a peak-hold facility and the in-house build of a special noise test van to house Brüel and Kjaer's latest transient noise measurement equipment. This sophisticated system captured a 'snapshot' of the sound at the moment when the peak noise level occurred, and then analysed that brief sound sample into 1/3 octave bands to characterise the frequency spectrum of the peak noise. My colleague Martin Johnson developed another system that captured the position of the test vehicle relative to the microphone when the peak noise level was recorded. These tools gave us a much better understanding of the predominant noise sources for a particular vehicle. The prime noise source could be intake noise, engine noise, transmission noise, noise radiated from the metalwork of the exhaust system or exhaust tail-pipe gas noise. The new equipment saved a lot of time in developing the large number of test vehicles required to certify every variant in Ford's very complex Transit and Cargo model ranges.

Ford's Boreham rally team (next door to Truck Testing but completely separate in their operations), was having difficulty in achieving exterior noise certification for the road car version of their RS200 Group B rally car. Different examples of the RS200's gearbox exhibited varying noise levels and they'd been fitting different gearboxes to their Type-Approval car in their efforts to make it quieter. My boss offered for me to work with the rally team to help them achieve the required drive-by noise level for the RS200. So, with my colleague Peter

Fisher, I carried out several drive-by tests using our frequency analysis equipment (as described above).



Ford RS200 250 bhp road car

I'd been rallying my Mini Cooper S so I got the job of driving the standard road car RS200 (with 'only' 250bhp) for the drive-by tests, and I drove several miles exploring its handling around Boreham's perimeter track (the former Boreham motor racing circuit) while getting to and from the noise test site. I even went home in the test car one evening after work.

We were able to show that the peak noise level occurred after the car had gone past the microphone, so the front-mounted gearbox wasn't contributing to the peak noise level at all. What the car needed was a reduction in the mash of high frequency noise coming from the rear-mounted engine. This was accomplished by the fitment of some 'soft-furnishing' sound attenuators around the engine compartment and the RS200 duly achieved its exterior noise certification.

Noise Meters and their Capabilities

Noise meters measure sound pressure level which is the variation in local air pressure caused by sound. Sound level is measured in decibels (dB) on a logarithmic scale that helps to keep the numbers sensible when considering the very wide range of sound pressure levels that people experience. A 3dB increase represents a doubling of the sound pressure and this is the smallest change in noise level that most people can discern. A 10dB increase represents an approximate doubling of the perceived loudness. Sound energy from a single source radiates spherically so sound pressure level reduces with distance from the source. A doubling of the distance from the source results in a decrease of 6dB in the sound level. Hence it is important to carry out vehicle noise measurement at a precise distance. Also, vehicle noise is transient so I'm ignoring all the meters that monitor noise levels over a period of time such

as the noise dosimeters that are used for measuring workplace exposure to noise.

Human beings' sensitivity to noise differs across the range of audible frequency bands, so a weighting filter has been developed that adjusts the levels for different frequencies to more closely match humans' perception of loudness. This is called A-weighting and sound measurements that have been filtered in this way are measured in units of dB(A).

A sound level metering system comprises a microphone, a pre-amplifier, a signal processor and a display or recording device. This entire system can be tested and classified (under International Regulation IEC-61672) as a Class 1 or Class 2 meter.

A Class 1 meter has to meet higher levels of accuracy and has to be effective over a wider range of frequencies. The test standards for the classification of sound level meters are shown in the following table:-

IEC-61672-1:2013	Class 1 meters	Class 2 meters
	Permitted tolerance	Permitted tolerance
At frequency of 16 Hz	+ 2.5dB - 4.5dB	+ 5.5dB - ∞dB
At frequency of 20 Hz	+ or - 2.5dB	+ or - 3.5dB
At frequency of 1 kHz	+ or - 1.1dB	+ or - 1.4dB
At frequency of 10 kHz	+ 2.6dB - 3.6dB	+ 5.6dB - ∞dB
At frequency of 16 kHz	+ 3.5dB - 17dB	+ 6.0dB - ∞dB

It can be seen that the permitted tolerances vary considerably and meters are checked against these standards under tightly controlled laboratory conditions. Sound level in the real world is a parameter that is rarely 100% constant and is difficult to measure with accuracy and consistency. Other factors that affect the transmission and measurement of sound include humidity, temperature, barometric pressure and wind.

How accurate are Sound level Meters?

Sound level meters are pretty good at determining whether a particular sound level is louder than another measured sound. However, they are not good at recording sound levels against an absolute reference scale. The accuracy of

the best Class 1 meters has not improved significantly since I was testing those Ford vehicles in the 1980s, though their cost is now significantly lower.

The absolute accuracy of a noise meter can be improved by calibrating the meter using a piston-phone or other sound calibrator. And some meters allow their displays to be adjusted to match the reference sound pressure at the frequency generated by the calibrator (which is normally 250Hz or 1kHz).

For Type-Approval certification of vehicle noise, the meter and its calibration device have to be independently certified by a recognised standards authority.

In the chart above 1kHz is closest to the frequencies emitted by petrol and diesel vehicles. When I was noise testing for Ford, it had been agreed between the VCA and Brüel and Kjaer that their top spec. Class 1 meters (when independently certified and user-calibrated immediately prior to use) could be considered to be accurate for measuring vehicle noise to plus or minus 0.7 dB(A). To avoid the risk that a Type Approval test might fail a vehicle that should pass (if a meter gave an over-reading), the VCA adjudicators reduced the actual test results by 1 dB(A) and put that figure on the certification documents. Most vehicles were more than 1 dB(A) below their limit value so this adjustment made no difference, but for the few that were marginal, a test vehicle might occasionally be passed when it should have failed but a compliant vehicle would never be incorrectly failed.

For measuring vehicle noise under less-tightly-controlled conditions, the following levels of accuracy should be considered the norm:

A fully certified and calibrated Class 1 meter	Circa + or - 1.0 dB(A)
An un-calibrated Class 1 meter	Circa + or - 1.5 dB(A)
A calibrated Class 2 meter	Circa + or - 2.0 dB(A)
An un-calibrated Class 2 meter	Circa + or - 2.5 dB(A)

But many noise meters on sale nowadays don't comply with the requirements for either Class 1 or Class 2. I found low cost examples made in Hong Kong and Taiwan with quoted accuracies of + or - 1dB but with no frequencies given! In the absence of independent certification, this is unwarranted optimism without any proof. Other sources on the internet suggest that most noise meters that are not Class 1 or Class 2 probably have tolerances at 1kHz that are + or - 3 dB(A) and sometimes even more than this.

The vast majority of noise meters on sale in the UK (including the Class 1 and Class 2 compliant ones) quote no data whatsoever regarding their accuracy. Some quote their resolution as 0.1dB which isn't the same thing as accuracy, but it might fool some people.

Class 1 meters typically cost from £2,000 and most Class 2 meters are more than £1,000, though I have found a couple for £750 and £850. And I've found some much cheaper noise meters that claim to be "Class 2 compliant" but they don't state that they have been certified to Class 2 standards or they say "Approval is Pending".

In addition to a sound level meter, a Class 2 calibrator typically costs £300 to £500.

Tool Station can supply a meter for £144 and some are available for less than £100.

Exhaust Noise Testing for Motor Sport

From the above it can be seen how difficult it is to measure noise against a pass/fail criterion. What is certain is that there is always some uncertainty in the measurement of vehicle noise.

MSUK's specification for noise meters is as follows:-

A measuring device carrying a current Certificate of Conformity to a traceable standard

- a. Type 1 or 2 Instrument (to be calibrated regularly)
- b. International Standard IEC 651
- c. British Standard BS 5969
- d. Range 70–120 dB(A)
- e. Weighting 'A'
- f. Time Constants Fast / Slow
- g. Maximum 'Hold' facility recommended
- h. Calibrators to comply with BS EN or IEC 60942 Class 2

Standards IEC 651 and BS 5969 are no longer current as they have been superseded by IEC-61672 and BS EN 61672. And IEC 60942 and BS EN 60942 for sound level calibrators have been updated to IEC 60942 Edition 4, 2017 and its BS equivalent.

A noise test meter to MSUK's requirements will have a certificate of conformity confirming that its accuracy meets Class 1 or Class 2 requirements and it will have been recently calibrated. However, because of the costs, many smaller motor clubs are likely to have non-compliant meters.

MSUK also stipulate:

5.18.1. Measurements to be made at 0.5 metres from the end of the exhaust pipe with the microphone at 45° to the exhaust outlet at a height of 0.5 to 1.0m above the ground.

5.18.2. Where more than one exhaust outlet is present, the test will be repeated for each exhaust and the highest reading will be used. If the exhaust outlet is not immediately accessible, the test may be conducted at 2.0 metres from the centre line of the vehicle at 90° to the centre line of the vehicle, with the microphone 1.2 metres above the ground.

5.18.3. Measurements should be made outdoors with no large reflecting objects (e.g. walls) within 3.0 metres (for the 0.5m test) or within 10.0 metres (for the 2.0 metre test).

5.18.4. Background sound levels should be at least 10 dB(A) below the measured level.

Environmental noise scrutineers at motor sport events should be aware that there is always some uncertainty in the measurement of vehicle noise. As well as the factors mentioned previously, the reflectivity of the ground surface, how high up the tester holds the microphone, and how accurately he maintains the stipulated 45 degree angle from the tail-pipe will all have some effect on the test result.

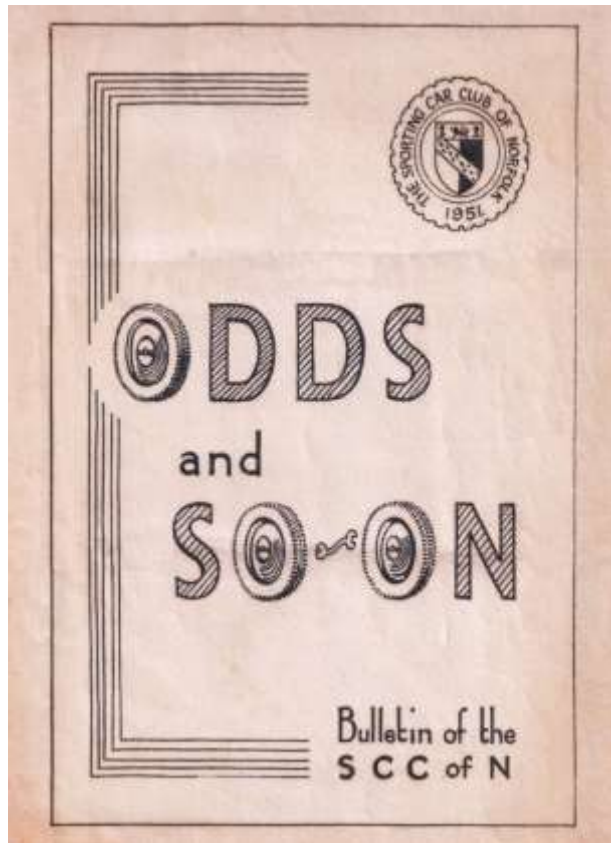
With measurements taken at 0.5 metres from the tail-pipe exit, cars driving past or other engines running in the vicinity will have no effect unless they are extremely loud. Even a noise of the same loudness only 3 metres away will have no effect on your car's reading.

You definitely won't get the same result when your car is noise-tested on different occasions. If your car gets a marginal pass for one test, it could easily fail the next one.

Peter Riddle, November 2024



BEFORE SPOTLIGHT



SCCON's newsletter was originally called 'Odds and So-On', before it was re-named 'Spotlight and a single copy has recently been donated to the club's archives. Dated June/July 1955, it was edited by Mrs B.K. Burrell. Her husband was Don Burrell who navigated Ted Cleghorn's Morgan on the 1954 Redex National Motor Rally. That event attracted 385 entries and the route from various starting points to Harrogate and then to Hastings via the Lake District & Wales was over 1200 miles long. Two and a half days of driving with no overnight rest halt! Motor Sport magazine praised one-armed Ted's driving in the speed tests at the finish as "really outstanding".



AN UNUSUAL ROAD TEST

My father trained in tanks during the war and he learnt to drive all the following tanks: Covenanter, Crusader, Valentine, Matilda, the 40 ton Churchill tank and the much faster Vickers light tank Mark VI that could exceed 30mph. There was hardly any commonality in the layout of the controls and the way they functioned from one type of tank to another and he said it was easy to make driving mistakes when you were tired.

But he never drove a Sherman tank, so when I found that the 1955 copy of SCCON's 'Odds and So-On' newsletter included a road test of one, I thought it might be interesting. But on reading it, I came to doubt whether the author (A. Nonymous) had actually driven one! It is reproduced here.....

ROAD TEST WITH A DIFFERENCE

THE SHERMAN Mk IV TANK

Seeing that most magazines sometimes road test an unusual car for their readers perusal, it was with considerable enthusiasm and gymnastics that I got inside a 1942 model hard-top Sherman tank owned by an Uncle Sam of mine.

Getting into a Sherman is somewhat tricky and it's like being dropped into a boiler entrance via a steel trap-door in the top. This top can be left open for sticking your head out to curse at other drivers, whistle at girls and for good vision during driving tests. It can however be bolted down for competition driving.

The first thing that struck me was the very useful accessory of a 0.30" calibre machine gun fitted as standard equipment. This is normally used on light traffic and pedestrians. Also of course, another standard fitting is the 76mm cannon which is quite adequate for dealing with traffic jams and Sunday drivers.

On my way to our favourite racing circuit for testing (which is customarily used for testing cars) we swung into heavy traffic and here it could be demonstrated how the Sherman handles. The top speed is only 35mph but I left two Bristols and a TR2 extremely flat out.

There is a slight upward lurch in the Sherman at the moment of overtaking a standard car but one soon becomes accustomed to it. The soft suspension of a modern car somewhat cushions the impact and Sherman drivers refer to the lurch as "getting the feel of the car".

The engine is comparatively loud with a thunderous roar and the passenger, sitting about a foot from the driver's starboard ear has difficulty in making himself heard, even when using dynamite and three air-raid sirens.

The internal decor is somewhat severe but nevertheless functional with a colour scheme of grease on white giving an unusual, almost unique effect.

The Sherman is powered by a hotter-upper's dream - a 500 horse-power V8 of gigantic proportions and manufactured by Ford. Spare parts are available almost anywhere and just think what a Raymond Mays tuning conversion would do. On opening the engine hatch I eagerly looked inside and golly - what a mess! It has got a lot of engine. At first it looked more like the inside of an engine factory but Uncle Sam insists that it all belongs to this one Sherman.

Petrol consumption is about 3 miles per gallon on a straight run at steady cruising speeds but in traffic with a lot of city work it's much less. It also takes fifty gallons of oil every time it's re-fuelled!

The gearbox is an interesting he-man affair and providing you stand at least knee-high to a giraffe, it is believed that gear-changes can be made. The gearbox heats up too much for comfort and the advertisers say you can fry a pedestrian on it but I didn't have time to try this. There are five forward speeds (four gears plus overdrive) and the top speed is 35mph. Backed by its 500 hp engine, the Sherman is always going to have its own way.

Steering the Sherman is an experience never to be forgotten. My first try took me through a row of houses, a department store and over an Eastern Counties omnibus. But I soon got the knack of it, though I have to admit that it was a mite tricky. Two levers are used for steering - pull the right one and the right track brakes throw you to the right; pull the left and you're back in the department store.

It corners as if on tracks (because it is!). It's the only vehicle in the world that seems to jump round corners - it would be a boon in a garaging test.

The Mk IV is definitely not for the average driver, but for the man who wants safety and durability, the Sherman will appeal. Sports car drivers particularly will appreciate the enjoyment to be had by parking in front of a huge saloon and then backing up fast.

The driver who is getting traffic nerves will find that he can sit back, relax and drive without a thought about the joker who is cutting-in ahead of him. The Sherman will make the modern low, wide look of this man's car even lower and even wider! True, one cannot be first away at the lights, but at the next red light, one can crawl right on up and over and you're back to the front again.

The suspension is somewhat firm by modern car standards though it does seem to iron out uneven surfaces, but despite its record-breaking horse-power, the makers are not interested in power for power's sake.

I found the cannons most useful in an emergency when you need that extra something to get you out of a tight spot - the 76mm will remove the spot entirely. When it isn't in use a leather bootie is placed over the muzzle of that cannon and it is customary to leave this in position during leisure driving, removing it only to discourage fair game such as course marshals, hangers-on and drivers who are better than you.

In conclusion, at £15,000, this vehicle is definitely in the higher price range but I understand that the owners are looking for a team of drivers (with all expenses found) for a rally, presumably to the far side of the Iron Curtain.

Oh, I almost forgot; the Sherman has tremendous possibilities for the adventurous lady driver.

By: A. Nonymous June 1955



The Sherman tank in the Muckleborough Collection

The USA manufactured no less than 49234 Sherman tanks between 1942 and 1945

A morning to remember with David Leckie

It's a year since we lost David who was such an integral part of SCCON. Back in 2011, SCCON ran an event at Kimberley Hall to commemorate the club's 60th Anniversary and Becky Betts of Radio Norfolk visited our display outside the hall during their Treasure Quest programme. Julian and Josh Riley helped her to solve one of her conundrum questions. SCCON was invited to Radio Norfolk to go on air and talk about our club, so David and I went along one morning in May.

Peter Riddle, 23rd October 2024

Radio Norfolk May 2011

DC = David Clayton, KT = Kirsteen Thorne DL = David Leckie PR = Peter Riddle

DC - The Sporting Car Club of Norfolk are going to park in our studio shortly - all chrome and

leather.

DC - Now, what we're going to do is talk to a couple of gentlemen who are here from the Sporting Car Club of Norfolk and I suppose you bring all the car clubs in the area together do you gentlemen? Let me just introduce them; we've got Peter Riddle and David Leckie from the Sporting Car Club of Norfolk. Are you a sort of umbrella thing for lots of cars clubs, is that how it works?

PR - No we're not an umbrella organisation, we're a car club in our own right and we've just celebrated our 60th Anniversary.

DC- Oh well done, Happy Birthday, and how did it all form?

PR - The club was formed by a group of enthusiasts in 1951 and they were really celebrating the fact that petrol rationing had ended and the people who were lucky enough to own cars in those days, a group of them, got together. They spent some time deciding on a name for the club; because they wanted a name that was different from all the previous motor clubs that had existed in this area.

DC - Right, so it's S, C, C, O, N isn't it? You don't try and say it as SCCON do you?

PR - Well we do (laughter from everyone)

DL - We tend to be known as SCCON-ies.

KT - That's nice, I like that.

DC - And so it's 60 years in existence in Norfolk and would there be similar car clubs over different counties? Is there a Sporting Car Club of Suffolk and for Cambridgeshire and Yorkshire?

DL - There are many motor clubs all over England, Scotland and Wales. We're the only one I think with the name 'Sporting' Car Club. People sometimes think you need to own a sports car to be a member and that isn't the case. We welcome people who are car enthusiasts with any kind of car.

KT - Would you welcome me with my Ford Focus?

PR - We certainly would.

KT - Oh great.

DC - So you don't really have to go round in something a bit glamorous?

DL - No you don't; the car I usually compete in on SCON events is a 15 year old, nearly 20 year old Vauxhall Nova that I bought for £250. Kirsteen, your Ford Focus would put us to shame.

KT - It's only worth a little bit more than that, my Ford Focus. Now I remember the recent Treasure Quest episode where Becky eventually found a clue on a Jowett Javelin at Kimberley Hall. David, I remember you getting ever so excited at the words Jowett Javelin: why was that?

DC - Right OK. When I was three or four, a little lad in the fifties, and there were loads more cars then, there were so many different makes in the fifties and they were drawn by a man with a pencil; they weren't done in a wind tunnel so they all looked different and I would car-spot. My father would go "that's a Ford Prefect, there's an Austin Westminster" and then, strangely, the tone of his voice changed and he'd go "ooh, and there's a Jowett Javelin" so the name, stuck with me because it sounded really glamorous and I suppose in a way it is, and that's why, in the end, I always go on about Jowett Javelins. I kind of gave them a deferential feeling that they possibly didn't deserve but there aren't many in Norfolk are there?

PR - No there aren't many though we actually had a Jowett Javelin where Becky had to find the clue when she visited Kimberley Hall during Treasure Quest. We were delighted to have a Jowett Javelin because we used it to represent 1951, the year our club was founded. We had a display of cars, one for every year of the existence of our motor club. The Jowett Javelin was a 1951 car and you're right, it was a sporty car; it had an engine with a very low centre-of-gravity, a horizontally-opposed engine and in that respect it's like a modern-day Subaru Impreza. In the same way that an Impreza nowadays is a successful rally car, back in the 1950s, Jowett Javelins were used a lot for motor sport. Jowetts were raced in the Le Mans 24 Hour Race, the Monte Carlo Rally and events like that.

KT - Let me get this right then, you've been going for 60 years and at this event you had a car to represent every single year of the club's existence. How did you go about finding them? Did you have them already within the club? That must have taken some doing.

PR - It was a challenge that we set ourselves; we engaged with people in other motor clubs and we were gradually filling in the years and even yourselves helped us because we put out a plea over the radio about a week before the event to fill up the last few spaces.

KT - Wow, was there one year in particular which was proving really tricky? I wish I could get '67 sorted or something like that.

PR - It was the mid-nineties; they were the hardest to fill.

KT - Why, was that because literally, there weren't that many different makes around any more and we're all driving our Ford Focuses now?

PR - I think it's that they've got old enough that people aren't using them as an everyday car but they haven't quite got the kudos of being a classic car.

DC then replayed the clip of Becky Betts at Kimberley Hall when she found the Treasure Quest clue in the Jowett that David described as his favourite car.

DC - Peter Riddle and David Leckie from the Sporting Car Club of Norfolk are with us right now. The club is 60 years old and had a marvellous event a few weeks back at Kimberley Hall and you got a car for every one of your sixty years. What do you own?

PR - I own an Alfa Romeo GT. I bought it because I like the look of it but there's an element of practicality as well. Mine's a diesel so it's quite economical.

DC - How old is it?

PR - It's about four years old. I've also got a Vauxhall Nova similar to David's that I use for our club's modestly priced, entry-level motor sport.

DC - Right, where do you race it then?

PR - Our next event is at Snetterton Circuit next Tuesday evening. Can I say that it's not on the race circuit, it's an Autotest around a course defined by traffic cones.

DC - But the Sporting Car Club does race in proper races don't you? Do I remember that at Snetterton in years gone by?

DL - Yes, some of our members do race on the circuits up and down the country. But as a club, our own events are lower-cost events than motor racing, Autotests which Peter's just mentioned, in and out of the cones, production car trials which are up and down muddy hills, trying to get to the top without stopping; all fairly low cost but competitive events where you can learn lots of very good driving skills.

KT - I'm just reading the front page of your lovely magazine here about the event that took place and it says "Which is faster, car or plane? Healey sports car versus Auster aircraft, a race re-enactment sixty years later. So that took place did it, over the Bank Holiday weekend? What was that all about and what won the race?"

PR - It almost took place. One of the reasons we chose Kimberley Hall was that we discovered that around the time that our club was formed, Lord Kimberley, the owner of the hall at that time bet his friend Dr. Matthew Banks that he would race him to Newmarket very early one Sunday morning. Lord Kimberley would drive in his new Healey sports car and Matthew would fly in his Auster aircraft. They had their race; Johnny Kimberley had a slight advantage because he just jumped in his car and went, whereas Matthew had to run all the way down the driveway and cross the public road to get to his aeroplane at the air-strip some distance away and the car won the race. We tried to do a re-enactment in reverse to celebrate our 60th Anniversary but unfortunately the British weather got the better of us.

The landing speed of the little Auster aircraft is only about 35 mph and we had gusts of wind of 30 to 35 mph which made take-off and landing very risky, so the Austers couldn't come.

KT - Are there plans to do it again sometime and try and beat the weather this time?

PR - We had 38 aircraft on our landing list but sadly only seven of them were able to come in those weather conditions, but the Auster club is up for a re-try.

DC - Why do you think there is this enduring fascination with old cars?

DL - Well, I think as you were saying earlier, it's something you remember from your childhood, perhaps your Dad had a car like that or it was your first Dinky Toy, maybe something like that. There's that nostalgia; in those days there was lots of wood and leather inside them and they have smells that you don't get with modern cars. And I think they were less reliable so you had to work on them yourself, and you could work on them whereas a modern car (like the car I've got at the moment), you can't do anything with it. It's all electronics and computers so the older cars were more like a friendly animal, something you could relate to.

KT - Put it this way: you don't get young boys car-spotting nowadays like you did David?

DC - I don't know if boys still do it now. I used to have the Observer's Book of Cars and I was ticking them off as I saw each car. It was a devil of a job to find a Russian Zil going down the streets of Yorkshire, I tell you. The cars of today: do you think in forty years we'll be nostalgic for them?

DL - I don't think we will and I don't think there'll be so many old cars left running because of so much use of computers and electronics. People won't be able to repair

them in the way that you can with old cars of today. On modern cars you can change the plugs but not much more.

DC - But they're so much more convenient and reliable now aren't they? I just get in mine, a computer fires it up and if it goes wrong they plug-in another computer. Do mechanics still have spanners?

DL - I think some of them now wear suits.

PR - I have a slightly different view because people do feel nostalgic about their cars and people still aspire to own certain cars. We had a nearly new Aston Martin on display at Kimberley Hall, and people just stood back to look at the beautiful shape of the car. So I think that certain cars will continue to be cherished and there are some very clever people who will work out how to re-programme the electronics or to fit replacement electronics that will perform the same function when the original parts are no longer available.

KT - Do you have many female members in your club? To me, if I can get my weekly food shop in the boot, I'm happy with my car.

DL - Yes, we have lots of female members and certainly on our competitive events too. I've been competing with my daughter for the past four or five years; she navigates for me on navigational rallies.

KT - Your daughter navigates? Is she good?

DL - She's excellent.

DC - You don't ever fall out?

DL - We do have our moments yes on some navigation events, I'll be honest with you. But she's very good at it. We were talking at our AGM last night about another young lady member who is now at university in Southampton where she is both competing and organising events down there. Peter, you were competing with your daughter for many years as well. In our club, you don't have to own a car; you don't have to be a man, you don't even have to hold a driving licence. On some of our competitive events you can be as young as fourteen, under supervision and actually drive the cars and compete with everyone else.

KT - That must be brilliant for fourteen year olds. I bet they love it.

DC - We're envious of you, I'd love to have driven a car at fourteen. I did go round a field in an Austin A35 van under supervision and I nearly rolled it. Thanks for coming in chaps. If people want to join the Sporting Car Club of Norfolk, now sixty years old what do they do? What do they need? What are the qualifications? Who do they ring?

PR - They don't need any qualifications except for an enthusiasm for motor cars.

DC - And not even a car?

PR - No, you can enter some of our events as a navigator for no capital investment at all, just come along and join in.

DC - So it's the sporting use of cars. They don't have to be old. David what car do you drive?

DL - I've got an old VW Beetle and my day-to-day car is a Ford Focus.

DC - There we are, the Sporting Car Club of Norfolk, you've got a web-site haven't you?

DL - We have a web-site, it's SCCON, that's S, C, C, O, N, dot co dot UK

DC - Go and join them if you want to; it sounds like fun. Thanks David and Peter for coming in.

And Finally



Read this, I panic if I get one fine for speeding!

Over 50 people in the UK still have valid driver's licences despite accruing at least 30 penalty points—a threshold that usually signals repeat offenders who might benefit from mandatory retraining.

Three men each have over 100 points, including a 26-year-old with a whopping 176 points. The woman with the highest points total is 50 years old, holding 96. Altogether, there are 53 people with 30 or more points on their licenses.

Drivers get points after convictions for offences like speeding (three to six points), drink-driving (three to 11 points), and careless driving (three to nine points). Normally, drivers face a six-month ban if they reach 12 points within three years, unless they can prove that losing their licence would create “exceptional hardship”—for example, affecting their job or family care duties. As it stands, 10,056 drivers hold licenses despite having 12 or more points.

Nicholas Lyes from the road safety charity IAM RoadSmart says, “These shocking statistics call into question whether the definition of exceptional hardship needs reviewing.

“Any driver that is on the cusp of a ban would normally take heed of the risk of losing their licence, but it seems that a minority continue to break the law without any consideration.

“At the very least, those that accrue 12 or more points on their licence should be required to take an additional training course, even if they are allowed to keep their licence because a court has deemed that losing it would cause exceptional hardship.”

Points can stay on a license for up to 11 years, so some drivers who've been convicted multiple times remain legally behind the wheel after serving a disqualification period.

Steve Gooding of the RAC Foundation believes more transparency on these exceptions would improve public trust. He says, “It would be reassuring to know that someone in authority was monitoring both the absolute number of licence holders swerving a ban and the reasons why they've been granted leave to keep driving.

“A bit more transparency in the system might ensure the right balance is being struck between personal mobility and our collective safety. It could also improve public confidence in justice.

“Exceptional hardship needs to be truly exceptional.”

The DVLA, which only records court decisions and doesn't influence sentencing, verifies with courts whenever a driver passes the 12-point threshold without receiving a ban.

