



Sussex Advanced Drivers – Newsletter

Spring 2023

Welcome to the Spring Newsletter

I say “spring”, but we often have a lot of winter weather ahead of us at this time of year, and we still have a month or two of battling through the hazard of low sun dazzling us on the road – if we’re lucky!!

We have some articles to entertain you in this newsletter, and useful information regarding upcoming events, and contact details of committee members, should you need their assistance, so I hope you enjoy it. I have tried to keep it short (not because it’s my turn – honest!) so that you might have time to read it. Please feel free to let us know what you think of it or request some content you would like to see.

Duncan

Temporary Newsletter Editor

An update from our Group Secretary

Hello All,

It is still winter, February so far has been cold and wet, or at least that is how it has felt to me. But better times are coming, March can be quite pleasant – and at the end of March we are changing over to British Summer Time. The days will be noticeably longer and the earth will warm up.

Might that also apply to our Group? Can we hope that with the lighter days there will be more people coming forward to help run the Group? The newsletter after this will come out in May, what will it contain – a goodbye to Sussex Advanced Drivers - or a fresh start for us with a new committee?

To be accredited to RoSPA, to have their insurance and their good name, a group must have at a minimum a Chairman, a Group Secretary, and a Treasurer. After the AGM in May we will have neither Chairman, Vice Chair, or Group Secretary

This threatens the existence of the Group – is that what you want? I don't, and neither does anybody else on the committee. We have put too much effort into running a successful group.

What do we need:

- Group Chairman
- Vice Chair
- Group Secretary
- Events Organiser
- Webmaster
- Newsletter Editor

Any volunteer for any of the roles will have all the help he/she might need. I am willing to stay on the committee provided that there is new team in place and until it is 'embedded', and I will always be just a phone call (or email) away. I know that this will also apply for any other member of the outgoing committee.

Please come forward, we have tutors and we have associates, we even have funds; they will all be abandoned if the Group does not continue.

Hopefully,

Margret

Group Secretary

PS. Since writing this I am happy to say that we have found a new chairman, Paul Purdy, one of our tutors. Thank you, Paul. And I have decided to edit future newsletters.

Two problems less, four to go. Will you help to solve them?

Chairman's corner

Dear All

The days are getting longer and we have had another Tutors session arranged by Duncan. Very useful. I expect we will have another so if any of the Associates wish to come, keep a look out for Duncan's emails.

The next group meeting is on 22 March 2023 at the Scaynes Hill Millennium Hall.

In the cold weather when salt is spread it gets the car dirty so do not forget to keep your registration plates clean. You could be fined if not?

The AGM will be on 17th May 2023 so any volunteers who would like to join the Committee let us know as several of the current Committee members are retiring.

Have a good Spring; we can all look forward to pleasant driving conditions.
See you on 22nd March.

Anthony

Another test, another 3 years

Near the end of January I went to meet a RoSPA examiner for my re-test – at last! My previous test was in 2018, but I passed a RoSPA course for tutors in 2019, so had expected to be allocated an exam 3 years after that.

An advanced drivers' test carries a nervous anticipation for me, as the road and traffic conditions can make for some difficult decisions. If everything goes well, and the "other people" behave themselves, it can be easy, but we all know that smooth sailing is rare, and the "perfect drive" even rarer.

My examiner was very polite and friendly, as they all try to be. I was at a particular disadvantage as the test started from Woking in Surrey (I know!!) which I am completely unfamiliar with; so when I was asked to follow the route to Hawley, the problems of mis-placed road signs didn't help.

I enjoy driving, so I quite enjoyed the hour or so, and was awarded a Gold pass, and given some questions relating to our training as tutors.

When asked to identify road signs, it was interesting to note that they are sometimes very difficult to name when shown on a card out of context. Most are quite clear when seen from a windscreen of a car, so I would advise all members and associates who will be taking the test in the near future to do some revision from the Highway Code and pay particular attention to signs when driving.

When the subject of vehicle maintenance came up, it was the tyres, and their condition that was in question. This was the third time that I was made aware of the examiners' focus, as the tyres are the most important safety feature of the car. The tread depth and pressures can make a difference of life or death in an emergency and will affect fuel economy throughout the life of the car on the road.

Another piece of advice that I remember is to be able to give a good, concise "cockpit check" and introduction to the vehicle with a practiced moving brake test – it sets the examination up with a professional-looking start.

I hope that you find this useful for when you go to take your next test, and always remember to enjoy it; in my experience, we learn a lot on the test, which helps us to continue to learn during our driving lifetime.

Duncan Hauser

Sussex Group Training Officer

From the archives of Investigating Engineer Douglas Wragg we have this article where Common Sense is proven by science.

THE RACING FIESTA

Re-reading past cases is a bit like clearing out the attic - it is very easy to become side tracked as you go through the cases one by one, remembering the occasions and events as they happened.

One such case is that of a gentleman whom we shall call Malcolm Anders. He was the proud owner of a "T" registered Ford Fiesta. In 1992 he was travelling on a slightly uphill section of road when he was "clocked" by the Police using a speed camera, driving at 101.3 miles per hour. All along,

Malcolm admitted that he was going faster than the National Limit of 70 miles per hour, but strenuously denied that he was exceeding 100 miles per hour.

I was approached by a firm of consultant engineers for whom I had carried out a number of investigations. "Do you think" they asked "that a 1.1 litre Fiesta with 50.000 miles on the speedometer could travel at a speed in excess of 100 miles per hour?"

It does not sound very likely. However, there is only one way to find out, and that is to try it for yourself. Arrangements were made for the car to be tested on a chassis dynamometer (rolling road) to see what would happen.

One of the clever things you can do with a chassis dynamometer is to simulate driving conditions on the road. Before carrying out the test, the vehicle weight, air resistance and rolling resistance settings are entered into the dynamometer and the resistance offered to the vehicle is adjusted accordingly. For reasons of accuracy, the tuning bay temperature was recorded, as were the local prevailing weather conditions, courtesy of Air Traffic Control at the local airport.

Prior to the main run, tests were carried out to determine the accuracy of the vehicle's speedometer and the vehicle speed per 1,000 rev./min. in top gear.

From these tests it was possible to determine that the vehicle had a speed of 15.85 miles per hour per 1,000 rev./min. in 4th. (top) gear. A simple calculation showed that the engine would need to develop a speed approaching 6,400 rev./min. in order to achieve the road speed at which it was alleged to have been travelling.

The speedometer showed, predictably, an increasing error against the true speed. At 100 miles per hour it was almost 8% fast.

As the markings on the speedometer dial stopped at 100 miles per hour, it would have been necessary for the needle to go "off the scale" at the alleged speed of 101.3 miles per hour.

Prior to the test, the engine was connected to a computerised tuning unit in order to record and monitor the engine's "vital signs", and not to put too fine a point on it, give early warning of impending catastrophic failure!!

On the first run, the dynamometer was set as follows:

- | | |
|-------------------|----------|
| 1. Vehicle weight | 1,800 kg |
| 2. Drag | 5.0 kW |
| 3. Air resistance | 1.85 kW |

The test started, and I sat in the car driving it in top gear with the throttle fully open watching the speed rise. After three minutes, it was obvious that the vehicle could go no faster, and a maximum value of 5,450 rev./min. engine speed and 87.5 miles per hour were recorded.

The manufacturer's specification for this engine is 53 Brake Horse Power @ 5,700 rev./min. Although the vehicle had not attained the maximum quoted engine speed, it had come close (within 250 rev./min.).

A second test was run, where the values for drag and air resistance were halved. The maximum reading obtained after three minutes was 5,380 rev./min. with a corresponding road speed of 85.21 miles per hour; slightly slower than the first run. This was due to the engine developing a mis-fire in protest at the treatment it was receiving!

Case proven. This vehicle will not reach 100 miles per hour. My report was duly written and submitted. Almost by return of post came a letter saying that the Police were unimpressed with my report and would not accept my results and findings.

I asked the obvious question "why not?". Back came the reply; "ah well you see, this offence was committed six months ago and the vehicle being that much older will naturally be slower than when it was seen doing 101.3 miles per hour."

I like a challenge, so it was arranged that the vehicle would return for a further test. Firstly a run with the vehicle exactly in the condition in which it arrived, and secondly, I would personally tune the engine and give it the best chance it had ever had of breaking the sound barrier.

On the first run it achieved 5,066 rev./min with a speed of 80.29 miles per hour. Then the engine was tuned. On the second run the maximum values recorded were an engine speed of 5,731 rev./min with a speed of 90.83 miles per hour.

One final run was undertaken, although this time in the world of Alice in Wonderland: The weight setting was reduced to 1,000kg. (from 1,800 kg), and both the air resistance and rolling resistance were set to zero. We now had a vehicle travelling almost in a vacuum! The result was a maximum engine speed of 6,054 rev./min. and a top speed of 95.95 miles per hour. During the test the engine started to make some very unpleasant noises in protest, and the run was terminated before the three minutes had elapsed. There was no point in destroying the engine.

The result of all this testing showed that the vehicle could not have achieved the alleged speed at which it was said to be travelling, even when the rolling and air resistance were removed. (Readers will know that the air resistance rises as the cube of the speed !!!). On a long downhill stretch of

road, on a windless day and with a foolhardy driver I doubt that the magical speed of 101.3 miles per hour could have been achieved.

Enquires showed that this offence had taken place not on a downhill stretch of road, but on a slightly uphill section with a large radius bend. Not the most likely place to achieve that sort of speed.

The supplementary report was written and dispatched, and back came the reply that the Police did not accept my findings. I must confess to being slightly mystified. This was not a particularly difficult or complicated piece of investigation, so why were my findings so contentious?

The answer came from the barrister defending Mr. Anders. The speed gun used was the latest type, and the Police were most anxious that its accuracy was not to be questioned. If the case against Mr. Anders were lost it would open the door to other and previous prosecutions for speeding.

This was an understandable worry for the Police - most vehicles caught speeding would be more than capable of exceeding 100 miles per hour, and therefore it would be the word of the driver against the evidence of the speed gun.

The case was heard in the West Country, and as you may imagine was hotly contested. The court found for Mr. Anders, and he was fined and had his license endorsed for exceeding the National Speed Limit - which he had always admitted to doing. The court accepted that his vehicle was incapable of achieving the mythical 101.3 miles per hour.

One of the problems which occurs with digital readout instruments is a condition often referred to as "digital aberration". This is where the wrong digit moves, for example, the digit measuring the "tens" moves when it should be the "units" digit.

As a personal observation, I think that common sense should have prevailed. When the reading was so obviously false, the Police officer should have pulled the vehicle over and had a good laugh with the driver and then given him a stiff warning rather than doggedly maintaining that the reading was accurate.

This is your committee:

(Please don't hesitate to contact any of us if you have a query).

| | | | |
|---|------------------|-----------------------------------|--------------|
| Chairman | Anthony Platts | aplattsdrivertraining@hotmail.com | 07885 096921 |
| Group Secretary | Margret Preece | margretp@clara.co.uk | 07773 874562 |
| Treasurer | Matt Porterfield | matt.porterfield@fireflyuk.net | 07799 640641 |
| Training Officer | Duncan Hauser | duncanhauser@ntlworld.com | 07958 284577 |
| Membership Secretary | John Norris | johnsnorris@gmail.com | 07775 781699 |
| Vice Chairman and Events Organiser | Kevin Reader | kevinreader@btinternet.com | 07761 635027 |
| Newsletter Editor | Vacant | | |
| Webmaster | Vacant | | |
| Committee Member | Paul Purdy | paulpurdy@btinternet.com | 07548 986820 |
| Committee Member | Douglas Wragg | dgwragg@gmail.com | 07778 811349 |
| Committee Member | Gwyn Davies | gwynjanet@aol.co.uk | 07887 616505 |
| Committee Member | David Raine | David.raine41@gmail.com | 07887 695385 |

Group Secretary's notes:

All meetings are held at:

Scaynes Hill Millennium Hall, Lewis Road, Scaynes Hill, Haywards Heath, RH17 7PG

Future Events

All events start at 19.30 with tea and coffee for a prompt 8pm start.

| | |
|---------------|---|
| 22 March 2023 | CPR and use of Defibrillator |
| 19 May 2023 | (AGM) Katie Bourne (Sussex Police & Crime Commissioner) |
| 19 July 2023 | TBA |

To ensure you are kept informed of news and extra activities arranged for the Group, please could all members and associate members let us know of any changes to their contact details so that we can update the Group's database.

Margret Preece (Group Secretary - margretp@clara.co.uk) or
John Norris (Membership Secretary - jsnorris@me.com)

Sussex RoSPA

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