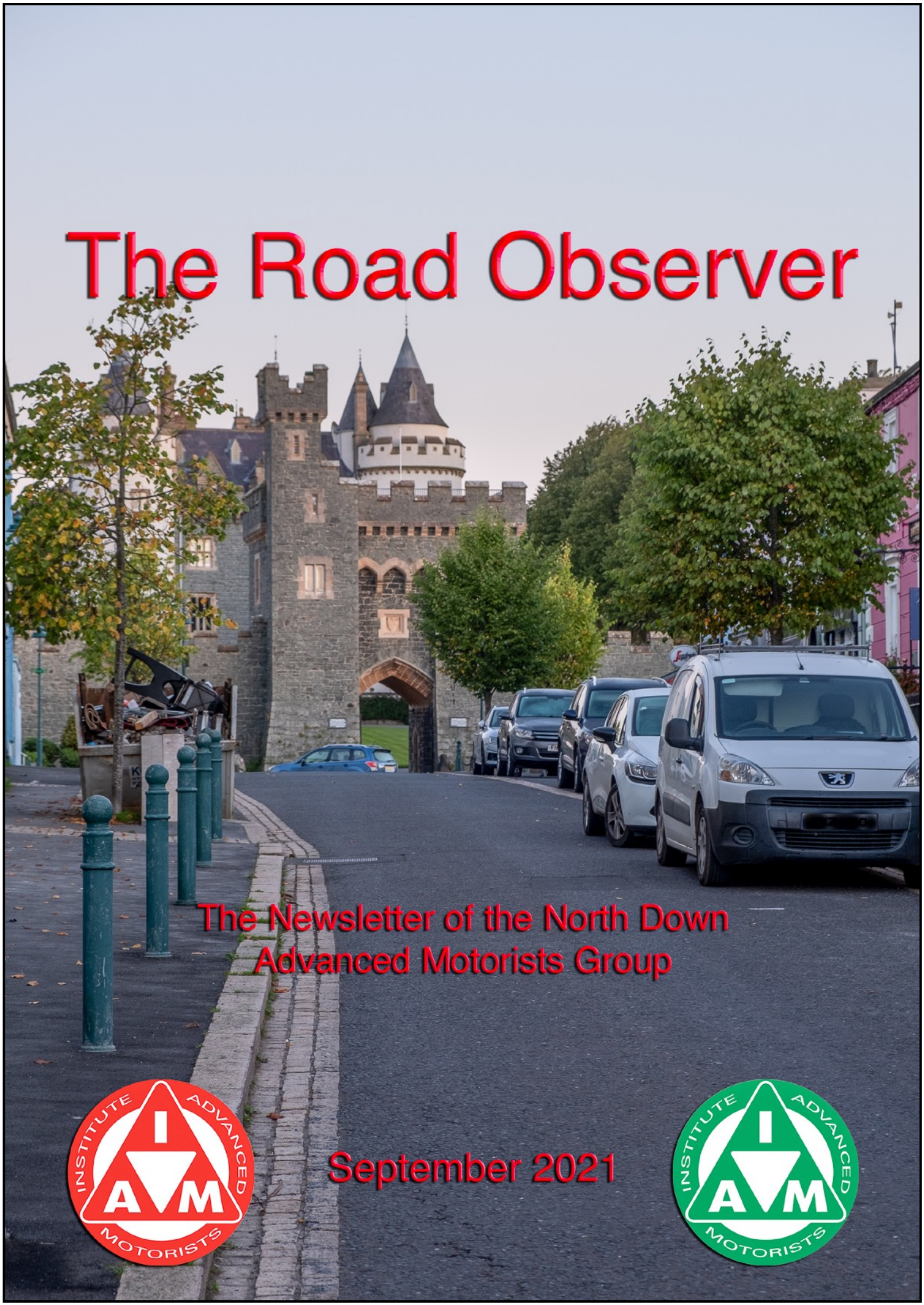
The Road Observer



The Newsletter of the North Down
Advanced Motorists Group

September 2021

The Road Observer

The Newsletter of the North Down Advanced Motorists Group (Group 8199)

Helping to Improve the Standard of Driving on the Roads in Northern Ireland and the advancement of road safety

September 2021 http://www.amni.org.uk/ Vol 21.08

https://www.facebook.com/NorthDownGroupIAM

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Test passes

Congratulations to motorcycle member

Neil Geoghegan

who achieved a F1RST pass.

Also congratulations to

Don McQuillan

a motorcycle Master who was re-tested and successfully re-qualified as a Master.

August 2021 cover picture

The August 2021 cover picture was East Bridge Street in Belfast looking towards Lanyon Place Station with part of St George's market on the left.

Congratulations (in order of receipt) to David Harcourt, Ivan McStea, Ralph Magee and Norman Shearer.

Outside Belfast for this month. Do you know where it is? No prizes, just the satisfaction of good observation and, of course, a mention in the next Road Observer. Submit your answers to: secretaryndam@gmail.com

Covid-19 update

Still no change. The motorcycle section can continue its training and social ride-outs subject to social distancing requirements. The car side is still ham-strung by the Northern Ireland guidance that a passenger (ie the Observer) should sit in the rear seat on the passenger side of the car.

We have been actively pursuing this with IAM RoadSmart and through some of our local MLAs but so far there is no change. The next review by the NI Executive is scheduled for 7 October.

This has ongoing implications for car Associate members as we cannot do observed drives with the Observer sitting in the back on the passenger side. However, we have the Boathouse booked for Tuesday 28 September and while we cannot do observed drives we can have a discussion about aspects of advanced driving.

If there are any changes from the approach recommended for car observed drives by IAM RoadSmart we will let you know.

Dates for your diary

Subject to restrictions being eased to enable car observed drives.

28 September - STAC session 1 Groomsport Boathouse 7.15pm

5 October - STAC session 2 Groomsport Boathouse 7.15pm

12 October - Group Night - AGM

9 November - Group Night - Speaker Paul Lawrence, Black Tomcat Photography

14 December - Group Night - Christmas dinner - venue TBA

The STAC programme for the remainder of the year will appear in the next issue, subject to the current restrictions being relaxed.

September Group night

With uncertainty about Covid restrictions in the summer we were unable to arrange a speaker in advance of our September Group night. As an alternative we had a drive/bike run from the Boathouse car-park to the Saltwater Brig for tea/coffee and biscuits. Having experimented with a joint car and bike run earlier in the year we came to the conclusion that it would only work if the car drivers were experienced, capable and willing to make progress along country B roads. A drive on a September evening also had the additional issue of failing light.

A number of Members decided to make their way direct.

The bikes set off on their own just after 7.30pm led by Kyle and with Ivan as tail gunner. The run took them out of Groomsport across the D'Dee Road onto the Springwell Road, then across the staggered Junction onto the Hawe Road and down to the Six Road Ends. The group rode to Carrowdore via the Four Roads and into Greyabbey.

The Coast Road to Kirkubbin saw a bit of a hold up with both slow moving and queued traffic. Combined with some new members and a rider on a 125 at the back section of the run the group broke up. Ivan escorted the stragglers to the venue and then returned to follow the group on the remainder of the run, taking in Cloughy, Kirkistown, Rubane and finally the Saltwater Brig.

On the car side there were 3 cars leaving Groomsport and we made our way down the coast as far as Cloughey before turning inland to head over in the direction of Kircubbin.

It was a glorious evening for a drive with the moon reflected over the Irish Sea on the way down to Cloughey and pools of low lying mist over the fields catching the last of the evening light. Rubane was where it went wrong. I was leading and having noticed that No 2 had fallen a bit behind I signalled early for the left turn in Rubane and waited just round the corner to make sure they were following. To my dismay No 2 and 3 went past the junction. After waiting with no sign of them turning round I made my way to the finish. The missing pair arrived a very short time later having made their way to the A20 and turning left for the Saltwater Brig.

In total we had 19 in the Saltwater Brig with unlimited tea and coffee. It was an opportunity for a very enjoyable social get-together, and to meet old friends. Many thanks to Ivan for the idea and for organising it.

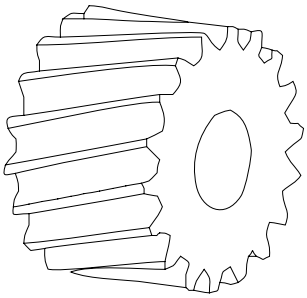
When is an automatic not an automatic

By David Harcourt

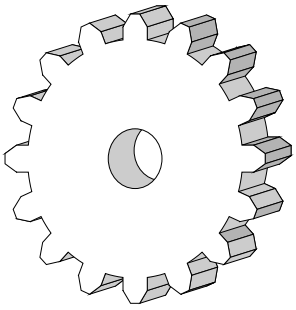
Some of the earliest cars had chain drive, like a chunky set of bicycle cogs, to deliver engine power to the wheels via a small selection of gears. This was simple and easy to maintain, but a bit noisy, and prone to picking up road debris. It wasn't long before manufacturers began enclosing the gears in a sealed box, which kept the dirt out and the lubrication in. In order to change gear, the drive from the engine had to be momentarily interrupted, which was done by the clutch. In its simplest form, this consists of a pair of plates, pressed firmly together by a powerful spring and locked together by friction. Pressing the clutch pedal forces them apart so the engine side can continue to rotate with the gearbox side no longer locked to it, giving freedom within the mechanism to select a different set of drive cogs.

Early gearboxes are often referred to as crash boxes because without the correct skill and practice, there's usually a bit of banging and crashing of the cogs to engage the desired selection. There is a technique called double de-clutching for a silent gear change, but it is a dying skill. This involves depressing the clutch to select neutral, releasing the clutch, blipping the accelerator to spin the cogs, then clutching again to select the gear, and releasing the clutch. As this is a difficult technique to master, the next big development in manual gearboxes was the synchromesh gearbox. In this, all the gear cogs are already spinning and synchronised so it's easy to smoothly move from one gear to the

next. The traditional square cut gear wheels we're most familiar with are quite chattery as the teeth mesh together, so the synchro box uses helical cut gears which mesh continuously rather than in a series of individual impacts. First and reverse gear are not generally synchronised and use the cheaper square cut wheels, which is why most manual cars are resistant to engaging first gear unless the vehicle is absolutely stationary, and why reverse gear often emits a distinctive whine.



Helical cut gear



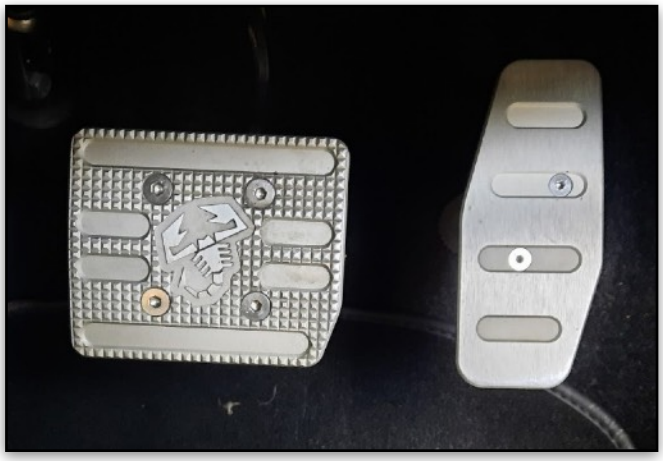
Straight cut gear

There have been improvements and refinements to manual gearboxes, and six forward gears is pretty standard these days, with seven just starting to appear. Seven, in my opinion, is too many for a manual gearbox as it makes for a complex gate and gear selector. With a six speed box, the gear lever will typically centre itself and rest in neutral between third and fourth gears. To select first and second, turn your hand thumb-down and lightly guide the lever with your palm to slot it into gear. As you move up to third and fourth, hold the lever lightly, palm down, and let it find its own centre point to align with the gate, and for fifth and sixth, guide it towards you, thumb up.

The first production cars with automatic transmission were introduced in the USA just before WWII, but production and development went on hold due to the war effort. As the American economy grew and everyone wanted a car, automatic transmission became the norm. As the automatic gearbox has a lot of complexity inside to deliver a simple experience for the driver, initial examples had just three, or occasionally just two gears. However, the big American cars of the 50s with their lazy V8 engines were very tolerant of gearing, so that worked ok, but was never going to take off in Europe in that form. In place of a clutch, automatics have a torque converter to couple the engine to the gearbox. Instead of two plates locked together by friction, this has an impeller on the engine side which moves fluid, and a turbine on the gearbox side which picks up the movement and gets dragged round to follow the impeller. However, as there is no mechanical coupling, there is slippage, but no friction components to wear out. You can sit stationary in first gear and the slippage in the torque converter means no drive power is transferred to the wheels until you press the accelerator and increase the engine rpm. In an automatic, you select Drive, and can generally leave the lever there until you reach your destination. Until recently, the combination of the slippage in the torque converter, and the small number of gears in an automatic box meant that manual cars were typically more economical than the equivalent automatic, often by a considerable margin. However, modern auto boxes have up to nine gears, a torque lock up which eliminates slippage at cruising speed, and a lot of clever electronics, with the result that they have largely overtaken manuals on economy.

The modern auto box may have some additional controls, such as a manual mode to select a particular gear, useful to prepare for an overtake or for hill descent, and this is often accompanied by a pair of paddles on the steering wheel for fingertip control. The gearbox may have settings such as Economy, Comfort, Sport and Winter, which will respectively give a leisurely, normal, enthusiastic and cautious drive. If your car has these settings, be sure to read the handbook and use them appropriately on test day if the opportunity arises.

One of the distinguishing features of an automatic is the two pedal arrangement. However, take a look at the photos on the next page:



The two pedal layout accompanied by the push-button drive selection belongs not to a true automatic, but to an automated manual car. It drives almost like an automatic, selecting 1 for Drive, R for Reverse, but mechanically it is a manual transmission with computer actuation. It is directly derived from Formula 1 technology and it is a lot of fun. Rather than a torque converter, it has a mechanical clutch on which you can feel the biting point, but the computer is in control so there is no clutch pedal.

There are other variants of automated manuals, of which the VW Direct Shift Gearbox is probably best known. The DSG features two clutches and has two gears selected simultaneously – one with the clutch disengaged. It's an extremely clever gearbox and it accurately anticipates which gear you'll need next, so it has it loaded and ready to go, delivering a smooth, instant change automatically, but not technically an automatic.

Of course, electric vehicles and hybrids are becoming more common, and they drive as automatics with the computer switching in the electric drive on demand, and recovering energy under braking, but for the most part they are not true automatics. One interesting new model, if you've got a spare £200,000 or thereabouts, is the McLaren Artura, an 8 speed auto hybrid. The designers have eliminated weight and complexity from the gearbox by not including a reverse gear, and the reverse drive is delivered instead purely by direct electric drive. I think you can reasonably expect to see this on everyday cars before too long.

4500 miles with a DSG gearbox (by your Editor)

After 53 years of owning cars with manual gearboxes I made the move to a car with a DSG gearbox earlier this year. I always said I would never buy a car with an automatic gearbox so what changed?

During my 53 years of manual gearboxes I did have the opportunity to drive cars with automatic gearboxes when on holiday in Canada, the USA and New Zealand. They were a mixed bag. The worst was in Florida and was an upgrade from what I thought I was getting. A Chevrolet Caprice was everything you would expect from an American car some 30 years ago. It was huge compared with most European cars at the time (18ft long and 6ft 5 inches wide) with a 5 litre V8 engine and a 4 speed automatic gearbox. It was a big lazy lump that could be steered with your little finger and suspension that could induce sea-sickness. I hated it intensely.

Chevrolet Caprice

Coming a close second was a 2018 Nissan Sentra with a CVT gearbox which couldn't have pulled the cap off your head no matter how hard you pressed the accelerator. It would get up to speed but it took forever. A brief drive in a Toyota Camry revealed a car that could not make up its mind what gear it wanted to be in. It was taken back the same day as it had tyres that were down to the tread wear indicators and it was replaced with a Mazda 6 which had a very good auto box. Just acceptable was a Chevrolet Malibu in Canada in 2012 (a vast improvement over the Chevrolet in Florida - but that wouldn't have been hard!). The best were the Mazda 6 and a Kia Optima which were driven for

Mazda 6


Kia Optima

5 weeks and 3 weeks respectively so were subjected to a reasonable test. All of these were traditional torque-converter gearboxes but in my experience they were all inferior to a manual gearbox. It was always a joy to get back into my own car in the airport on returning home.

Why did I change to automatic? I had the opportunity to test drive a couple of DSG automatics in recent years and was impressed with their responsiveness and smoothness. In addition, traditional automatic boxes had a fuel efficiency penalty but this is no longer the case with DSG gearboxes being equal to or even slightly more efficient than the equivalent manual box. Also I enjoyed using the steering wheel paddles to change manually. So when the time came to change I thought - lets go auto.

A complaint I had read in reviews of cars with DSG gearboxes was that there was a lag between pressing the go pedal and the car moving eg at a roundabout or junction making slipping into a space a bit more difficult. However, a couple of back to back test drives in different cars (150ps v 190ps) with much practising of starts from rest revealed that a car with the 190 ps engine was better mated to the 7 speed gearbox than 150 ps and lag is virtually undetectable. It was suggested that I would end up putting the car in drive and forget about using the manual side of the gearbox. I begged to

differ and in practice I find changing down manually with the paddles on the entrance to a bend considerably sharpens up the handling compared to leaving it in auto. Also changing down a couple of gears using the paddles in advance of an overtake provides a better response that using the kick-down (which to be fair isn't bad).

After some 4500 miles would I change back to a manual gearbox? The short answer is no, I'm really enjoying the DSG gearbox. I can be lazy if I want but really, for driving on twisty roads, using the paddles makes the driving much more enjoyable and the additional option to change to sport mode which holds the gears higher in the rev band can make for a spirited and very enjoyable drive. A great plus is in traffic queues by avoiding having to continually disengage and engage the clutch as the queue moves forward a couple of car lengths (but then this applies to any automatic gearbox). After some 4000 miles would I change back to a manual gearbox? The short answer is no, I'm really enjoying the DSG gearbox.

And finally…

On the subject of automatics, this is a picture from some years ago on the Ile de Porquerolles off the south of France where no internal combustion vehicles are allowed. You get about on foot, bicycle or in electric buggies. What appealed was the pedals labelled "stop" and "go" in this buggy. Closer inspection shows the 2 foot switches - to dip the headlights and on the very left the horn. However, clearly the horn wasn't working so they had rigged a squeeze air horn attached underneath the steering column! Honk, honk……