

## MOTORING MATTERS by Anthony Goodwin

### VW POLO - OR SHOULD I SAY THE MINI GOLF?

The latest 5th generation Polo has arrived, is it possible that the original was released 34 years ago! I know I could hardly believe that the Polo had been around that long. You can see the family resemblance to both the 6th generation VW Golf and the Scirocco. With every new generation, the Polo has got slightly larger with more technology on board. The new VW Polo is no different, it is longer and wider but also lighter, which helps with fuel economy. For those with a keen eye you can also note that it is lower than the previous model; this is also in line with the Golf, giving the car a more purposeful and dynamic stance. Although it's not as tall as the old Polo, there is increased head, leg and shoulder room inside which means 5 adults can fit comfortably inside.

In a break from tradition, the latest VW Polo is available from launch in four different trim levels. These are S, SE and SEL at the top of the range as well as the Moda which is designed with the younger market in mind, so you get special alloys and iPod connection for the 6 speaker sound system. There is a bluemotion model due for release in 2010. All models offer a class-leading level of specification with four airbags, ABS and, for the first time, ESP (Electronic Stabilisation Programme) standard on every Polo.



The VW Polo 1975-82



In the new Polo's interior, the levels of quality and comfort are those you would expect to find in a vehicle from one or several classes above. The dash and switches have been ergonomically designed with the surface of the instrument panel being in so-called 'slush

technology', a high-end surface structure which is soft to touch yet durable. The centre console is now turned slightly towards the driver for convenience, at the top there are two central air vents as are in both the Golf and Scirocco. The Polo's instruments were also re-designed and Volkswagen's traditional blue dials have given way to white backlighting as seen on the Golf. The fuel gauge is now digital. For maximum comfort, practicality and versatility, the driver's seat, front passenger's seat and rear bench seat were all redesigned offering more space at all five seating locations in the Polo. There is a fantastic range of optional extras which include touch screen navigation and convenience pack to include rain sensing wipers and self dimming rear view mirror.

You can choose from 3 petrol and 2 diesel engines, there are two 1.2 ltr either a 60 or 70 Psi, a 1.4 ltr 84 Psi and two common rail diesels either a 75 or 90 psi. There is also a 1.2 ltr TSI 105 Psi engine coming out soon. I can't wait to try the Polo GTI which is due later this year too. The 1.4-litre 85 PS Polo is offered, in addition to its standard five-speed manual gearbox, with seven-speed DSG transmission.

Standard equipment includes ABS with Brake assist, ESP with electronic differential lock and ASR traction control, four airbags, central locking and front electric windows.

The model we had on test was the 1.2ltr 60 Psi petrol in SE trim with optional touch screen navigation system. Fuel economy is a combined 51.4 mpg, top speed of 97 mph, with road fund licence being £120 per year. I enjoyed the nippy engine and around town the Polo put a smile on my face as it was very responsive and pulled away with ease. I felt safe on secure on the motorway and great news for this supermini is that it has a full 5 star Euro NCAP result.

Prices start from £10,035 for the 1.2ltr in S trim with the range topping 1.6 TDI in SEL trim being £14,910.

### 'INTELLIGENT TYRE' THAT 'SPEAKS' TO THE CAR

Back in the 50s came the radial ply tyre (Cinturato) followed by the low and ultra-low profile radial tyres in the '70s. Now it is the age of the 'intelligent tyre'. Thanks to a chip inserted into the carcass, the Cyber Tyre can supply essential information on the state of the tyre and on road conditions to the driver and car, making electronic control of the car more efficient. This innovation, which engineers in Pirelli's R&D department are currently working on, delivers increased active and passive safety when driving.

The partnership between man and technology is becoming closer and closer in the automotive industry. Tyres are becoming increasingly important for safety, as they are the only interface between driver, car and road. The 'intelligent tyre' has an electronic sensor which can give the on-board computer useful information for safe driving. The sensor is completely self-powered and therefore always charged and with low environmental impact. The future of the "intelligent tyre" involves the development of the most sophisticated electronic systems. Pirelli technology's latest invention is the Cyber Tyre Lean: a TPMS sensor (Tyre Pressure Monitoring System) for monitoring tyre pressure, developed in collaboration with Schrader. Cyber Tyre Lean (CTL) is a circular shaped device about the size of a two-euro coin, applied to the inner liner of the tyre, which gives data on tyre pressure and temperature, the average load on the wheel and the number of revolutions. It is self-powered, obtaining the necessary energy from the mechanical vibrations transmitted to the device from the movement of the tyre itself. The CTL will be on sale within the first months of 2010 and it is the first step in a technological process aimed at creating an "intelligent" tyre, which will inform the vehicle on tyre-road interaction.

The Cyber Tyre will not only be able to supply data on the tyre, but will also be able to "read" the road and will interface directly with other electronic car systems, transmitting further information for safer driving. The tyre itself will act as an electronic "sensor", interacting with other devices such as the ABS and the ESP, to give information in real time such as, for example, the actual and potential friction coefficients, and the force of contact between tyre and road, thus allowing for optimal and safe control of the car. The system will be based on an electronic sensor inserted inside the tyre, just over 1cm<sup>3</sup> in size, which will transmit by wireless technology all the data relative to the tyre and will also communicate signals coming from the road, directly to the on-board computer: a sort of miniature "black box" which will be able not only to supply the driver with useful information but also to receive data directly from the car's other electronic devices.

The information can then be sent to the car itself by means of the transceiver inside the sensor, and allow the driver to correct his style of driving.

The Cyber Tyre will first be developed for high performance cars, but in a few years' time it will also be available for small and medium powered cars, following the logic now common to all systems which aim to improve safety on the roads.