

Driving new cars

Phil Curry heads to Millbrook to test something special

AS YOU probably know, I run a motoring blog on the outside of Aftermarket, just for fun. What it does is keep me in the loop with the vehicle manufacturers, so when they have a driving day or something to test, I can have a go and review it, as well as keep up-to-date with developments.

It is not often I let the two collide, however at a recent manufacturer test day I was able to test something that I have been talking about for some time. While the Hyundai ix35 may not seem inspiring to some, this was fitted with a hydrogen fuel cell. What's more, the Korean manufacturer intends to release the car to the general market, as does Toyota with its MIRA later this year. Hyundai has been developing the technology for 15 years and expects it to offer a real alternative to the internal combustion engine.

How safe?

One question often asked is about the safety of hydrogen, a highly combustible element. Hyundai are at pains to point out that while it is a dangerous fuel, when treated correctly it is no more volatile than petrol or diesel. Refuelling a hydrogen vehicle is done under high pressure, 700 bar to be precise, using a secure locked seal to ensure none of the fuel escapes. Previous attempts to launch hydrogen vehicles saw tanks with 350 bar; the higher pressure allows more of the fuel to be carried aiding a greater range. The vehicle I drove had a quoted distance of 370 miles on a full tank. In addition, it takes around three minutes to refuel a hydrogen car.

It is expected there will be 10,000 fuel cell vehicles in the UK by 2020, with more than 1.6 million on the road by 2030, with sales of 300,000 per year. It is expected that by 2030, fuel cell vehicles will be able to compete on cost with conventional vehicles.

The vehicle I drove worked and handled just like a regular electric vehicle, with the fuel cell generating electricity that directly drives the motors. Regenerative braking allows energy to be recovered and stored by the high-voltage battery, which provides an extra boost of power when needed. This is noticeable, although in this particular model the braking did not inspire confidence, as it was sluggish when braking into a corner. Still, the low centre of gravity, with carbon-fibre fuel tanks located under the rear floor and just forward of the rear axle, both interlinked, means it handles well.

Other cars

While the Hyundai was top of my list, it was not the only vehicle I drove on the day. My first port of call was Ford, and their Focus ST Estate with a 2.0 TDI engine. While the power and acceleration were instant with no lag and the handling was good, even for an estate with more weight over the rear, the steering let down the whole car. On the high-speed bowl at Millbrook I had to work hard to keep the car turned in with the front wheels seemingly wanting to find a direction of their own. The mixture of torque and power from the diesel engine was not being handled very well and on the twists of the alpine circuit this was again exposed with plenty of understeer.

Following this I had the opportunity of some time with the Lexus



INNOVATIVE: The fuel cell powers electric motors

RC. No longer the butt of jokes concerning a fictional radio presenter from Norwich, Lexus has done some work to mix up its range of everyday cars with some decent performance models. The LFC is still the pinnacle of technological motoring for some journalists, however at the event; it was the RCF that was on offer. In a number of colours, I took out the more sedate Carbon version (with a carbon fibre bonnet) and was impressed by the power offered. However in normal mode, the gearbox seemed to lag behind driver input. In Sport mode this was improved but still behind. However in normal driving the car provided a precise driving experience, light steering allowed for excellent manoeuvrability and stiffened suspension for good handling in corners, while the driving area cocoons the driver, feeling like a cockpit rather than a driving seat.

This is just a selection of vehicles I had the opportunity of testing. However it was the hydrogen car that piqued my interest. This is a technology that is coming and will sit in the AFV market with hybrid and electric vehicles, something that the aftermarket must embrace.

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