



Lexus At The 2004 Detroit Motor Show

6 January 2004

- World debut of all-new GS
- World debut of production version of hybrid power Lexus RX400h

Lexus has unveiled two significant new models at the North American International Auto Show. Taking centre stage at Detroit are the all-new GS sports saloon and the production version of the hybrid power RX400h prestige SUV. The vehicles demonstrate exciting new developments in Lexus styling and technology and advance the essential Lexus qualities of performance and unrivalled refinement.

THE NEW LEXUS GS

The new Lexus GS luxury sports saloon is a car that offers more power, more style and more advanced technology for improved safety, security, performance and comfort.

The new GS is powered by Lexus's powerful 4.3-litre V8 engine and a new 3.0-litre V6, which replaces the straight-six unit offered in the current range. Both engines are matched to a new six-speed automatic transmission with a sequential, manual shift function. This combination allows for faster and substantially smoother acceleration and, thanks to precise and rapid gearshift control, improved fuel economy.

The car's ride and handling are improved with the introduction of a new Adaptive Variable Suspension that allows the driver to adjust damping between four different settings to suit road conditions and driving style.

The new GS is the first production model to interpret a new range of Lexus design principles. Building on the themes revealed in the LF-S concept car presented at last year's Tokyo Motor Show, the GS has a more sculpted bodywork, a longer wheelbase and shorter front and rear overhangs than its predecessor. These features help create a more sporting appearance, a quality enhanced by the low angle of the A and C pillars and deeper front air dam with integrated fog lamps.

The new design approach continues inside the car where extensive use of premium wood, polished metal and leather detailing gives a luxury, precision feel. In every aspect, the cabin has been styled and equipped to provide the highest levels of comfort.

Safety provision has also been improved with the introduction of knee airbags for the driver and front seat passenger and variable force front airbags that use impact sensors to determine the most effective degree of inflation.

Advanced features for the new GS include Smart Access, a keyless entry and start-up system; an automatic Tyre Pressure Monitoring system (TPS); and Adaptive Front-lighting System (AFS), a feature introduced on the Lexus LS430 which substantially improves night-time vision at junctions and through bends by swivelling the headlights in line with vehicle speed and turning angle.

The new GS series will go on sale in North America in 2005. Specifications and details of UK and European models are yet to be determined. UK sales are expected to commence in 2005.

THE NEW LEXUS RX400h

The RX400h will be the world's first hybrid petrol-electric powered 4x4 premium SUV, offering 4.0-litre engine performance but family car levels of fuel economy and the lowest carbon dioxide emissions of any production vehicle in its class.

The RX400h - the 400 refers not to engine capacity but the power output comparative to conventional 4.0-litre engines - is set to go on sale in Europe at the end of this year, following on from the all-new RX300's debut in 2003.

In both the UK and Europe as a whole, the new RX300 has proved an outstanding success. Since launch in May 2003, European sales have risen by 86 per cent year on year to more than 7,300 units. Up to the end of December, new registrations in the UK totalled 2908, up by 72 per cent on 2002.

Lexus engineers have developed a completely new Hybrid Synergy Drive system for the RX400h, redesigning and refining the electrics, mechanical driving components and control elements to achieve the power and performance appropriate for a luxury four-wheel drive SUV.

The Hybrid Synergy Drive is a series/parallel system which uses two powerful electric motors and a highly efficient petrol engine in tandem. This significantly improves low to mid-speed acceleration, braking performance and fuel efficiency and minimises carbon dioxide emissions. Using an electric motor at the rear provides the car with four-wheel drive capability.

In addition to the dual power sources, the system also features a generator and a high-performance nickel-metal hydride battery. A power split device combines and re-allocates power from the engine, motors and generator, according to where it is needed in the drivetrain, and a power control unit governs the high-speed interaction of the system's components.

For the driver, a single gearshift on the dashboard engages the drive system, which operates as a seamless, continuously variable transmission.

In the course of any journey, the Hybrid Synergy Drive system will operate in several different modes to maximise the all-round efficiency of the vehicle. The motor driving the rear wheels introduces four-wheel drive performance at appropriate times, such as when starting up, accelerating, turning and driving on slippery surfaces.

Improvements to the efficiency of the V6 petrol engine and a transmission system with a torque-increasing deceleration gear, allied to a more efficient regenerative braking system, all serve to optimise the Hybrid Synergy Drive system's energy management qualities.

The combination of the 3.3-litre V6 engine, the powerful front-mounted electric motor and further rear electric motor produces a maximum power of about 270bhp (200kW). This gives the RX400h

a top speed comparable to that of the US specification RX300, but stronger performance with nought to 62mph acceleration in less than eight seconds.

Furthermore, the RX400h has the world's lowest CO2 emissions figures for an SUV, complying with Euro IV standards, and fuel consumption figures which compare to typical family car performance. In the US-specification model it will be possible to cover 625 miles on a single tank of fuel.

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