



## Lexus RX400h

### Ta Panta Rei

Review | Mention "Athens" and the reaction is always the same: "a filthy city", and then after a short silence "but very beautiful". A large SUV provides a similar reaction: "anti social", and then "but very sturdy". Lexus has come up with a solution to both problems: the RX400h promises all luxury and performance of a top class SUV at the same time, but adds to it a modest and environmentally friendly character. The car may prove to live up to these expectations in ... Athens.

One of the reasons for smog in large cities is that a combustion engine is not suitable for city traffic. At high (above 50 mph) and continuous speeds a petrol or diesel engine is efficient and economical. But in the city with plenty of braking and accelerating such an engine is particularly inefficient. Let alone standing still with a running engine. Smog warnings, face masks and drastic governmental measures are a result.

Much more suitable for city traffic is an electric motor. This has no harmful emissions and is very efficient particularly at low speeds. Unfortunately the electric motor does not perform well on the motorway. Lexus therefore combines both engines in the new RX400h. The "h" stands for "hybrid" that is "cross between two technologies".



### Hybrid

This technology has been introduced very successfully before in the Toyota Prius. Now the manufacturer is taking it a step further, because the RX400h is an SUV and consequently provided with 4-wheel drive. The car therefore has three engines at its disposal: a petrol engine for the front wheels, an electric motor for the front wheels and an electric motor for the rear wheels. Because the rear wheels are only driven by the electric motor, many mechanical parts of a traditional 4-wheel drive can be omitted. This makes the car lighter and

therefore more economical.



A computer determines when which engine is most efficient. That can be one, two or even all three engines at the same time. The computer also ensures that the electric engines are charged during driving, so this electro-car never needs to be plugged into the mains.

## Japanese ingenuity

This three-engine piece of Japanese ingenuity behaves in practice as an extremely well-muscled SUV that, to put it mildly, likes to make headway. Along with it this 6-cylinder petrol engine roars from time to time with an exceptionally nice deep muffled noise as if it were a sports car. At the same time the car is so comfortable that passengers have no perception of speed. 50 mph has the same sensation as 110 mph, with the only difference that the rest of the traffic seems even slower.

Not just on the motorway, but also in city traffic the RX400h is remarkably fast. An electric motor does not have to build up revs to perform, but provides power instantly. Accelerating at traffic lights therefore is astonishing. The way the power is built up contributes to the high level of comfort. Where a traditional car loses momentum when changing gears, the electric motors and the "e-CVT" gearbox make sure that the Lexus keeps accelerating apparently effortlessly and jerk free.



While fuel consumption has hardly been taken into consideration and more than once full power was used, the average fuel consumption turned out to be 30.4 mpg. Lexus promises an average of 34.9 mpg, which with a calm way of driving is certainly achievable. Together with the low emissions this means that the RX400h has 2.6 tons less CO2 emissions a year over a comparable SUV. Comparing it to a comparable diesel SUV the emissions are 1.8 tons less.



## Comfort

Comfort is at the same time the strongest and the weakest point of the RX400h. Because the driver has hardly any real sense of speed, his speed in bends is unwaveringly higher than in a different car. The combination of a considerable weight, a high point of

gravity, indirect steering and soft suspension causes the limits to be reached faster than expected. The average car can hardly keep up with the Lexus, but the RX400h-driver has stepped over the boundary and the tyres squeal. In that case all back up systems Lexus has to offer are in attendance, including the new VDIM (see test report on the Lexus GS430 for more details).

The brakes have no problem with the almost 2 ton weighing SUV and stop the car under every circumstance with great ease. When going downhill braking on the engine and automatic gearbox is minimal. This can be pleasant because the car rolls to a stop longer while using hardly any fuel. On winding mountain roads this same behaviour is rather unpleasant, despite a special mountain-mode setting.

## Indulgence

Comfort also includes a comprehensive outfit, which has been modified to the hybrid technology. The air-conditioning therefore is electrical and not mechanical. Despite the scorching heat in Athens's inner city the (left/right separate) aircon is unreservedly active when the car is driving solely on the electric motors. The heating of the electrically adjustable leather seats has not been tried for the occasion. A DVD-based navigation system (Greece has not yet been mapped!), a camera for reverse driving and an electrically operated rear door are amongst the standard equipment.

With that much indulgence it almost automatically compares to fine dining. The best thing about this special meal however is that it is not fattening for anyone. The Lexus RX400h offers pure indulgence without any feelings of guilt.



## Conclusion

With the RX400h Lexus promises the performance of an 8-cylinder for the price of a 6-cylinder and the fuel consumption of a 4-cylinder. The test drive proves that this tour de force of technology comes true on this promise. The car is incredibly fast and at least as comfortable as a limousine in this price range. In addition to that this SUV offers a huge amount of space and 4-wheel drive (although with very limited off-road capabilities). Despite that the fuel consumption is spectacularly lower than all comparable cars.

With a price of £ 35,500 (on the road) the Lexus RX is not a bargain, but the car is worth every penny. The difference in price with the less well-muscled RX300 is £ 5,000. For this difference in price the buyer receives more than just the hybrid drive. The RX400h has a slightly richer outfit and it also has Lexus's revolutionary VDIM safety system.

"Ta Panta Rei" is an expression by the Greek

philosopher Heraklitos. It means "all is in motion, nothing remains the same" and Lexus is responsible for quite some "com"motion in the SUV segment. ■



# Specifications

## Lexus RX400h

### Size and weight



Length x width x height	476 x 185 x 167 cm
Wheelbase	272 cm
Kerb weight	1.975 kg
Trailer	700 kg
Trailer - braked	2.000 kg
Fuel capacity	65 l
Luggage space	439 l
Tyre size	

### Engine and performance



Capacity	3311 cc
Cylinders / valves	6/4
Max power	272 PS @ 5600 rpm
Max torque	288 Nm @ 4400 rpm
Drive	four wheel drive
Acceleration 0 - 62 mph	7.6 secs
Top speed	200 km/h
Average mileage	8.1 l / 100 km
Mileage urban	9.1 l / 100 km
Mileage extra urban	7.6 l / 100 km
CO2 emissions	192 gr / km

### Price

Price	Â£ 40,288
Price base model	Â£ 31,933