



Preview: Lexus LS 600h L

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Featuring: Lexus LS Hybrid

MSN Autos

LEXUS LOOKS TO SHAKE THINGS UP IN THE PREMIUM LUXURY SEGMENT WITH THE WORLD'S FIRST FULL HYBRID WITH A V8.

Do you recall the TV ads with champagne glasses stacked in a pyramid on the hood of a car with the engine running?

The glasses never quivered, but they sent a shock wave through the automotive luxury market. The year was 1989 and the car was the 1990 model Lexus LS 400, the first entrant from Toyota's new luxury division.

A departure from the European notion of luxury sedans, the flagship LS was created for the American market and has impressed buyers from the very beginning with its remarkable quality, attention to detail and levels of comfort, convenience and performance.

And, of course, Lexus dealerships have become renowned for giving customers the kind of coddling they probably receive in all the other areas of life.

It is often said that lightning doesn't strike twice in the same place. However, not content to rest on its market success, Lexus once again created tremors throughout the luxury car arena last year with the introduction of the 2007 LS 460.

This fourth-generation LS edition not only blends new levels of sophistication, luxury refinements, performance and contemporary styling, a long-wheelbase model breaches a stronghold held by its European competitors. This model lifts the LS into the "premium luxury" segment, defined by Lexus as vehicles starting at or above the \$70,000 mark.

And if that's not enough, this June, Lexus shakes things up even more with the arrival of the LS 600h L. This long wheelbase version of the LS 460, the only version offered in the U.S., is the third production model to use Lexus Hybrid Drive, following the successful launch of the RX 400h and GS 450h.

Rarified Atmosphere

The luxury hybrid elevates Lexus into the rarified atmosphere of prestige motor cars costing more than a \$100,000. With a MSRP starting at \$104,000 a fully optioned LS 600h L will sticker close to \$125,000 suggested retail.

As with the Lexus RX and GS hybrid models, the 600h's "600" suffix refers not to the cubic capacity of the engine but to a relative power output. In this case, it's comparable to that of a 6.0-liter V12 normally aspirated engine.

Clearly, Lexus is targeting the Mercedes-Benz S600, Audi's A8 L W12 and BMW's 760Li extended wheelbase sedans, all graced with elite 12-cylinder engines.

The new hybrid sedan compares quite favorably to the Audi and BMW rivals. The new 389-horsepower 5.0-liter direct injection V8, when paired with the hybrid system's electric motor, produces a combined output of 438 horses. The Mercedes S600 resides in an entirely different motoring world, with twin turbochargers churning out 510 horsepower from its V12.

In Lexus tradition, the LS hybrid is politically green and technically ingenious while delivering unexpected performance: It is expected to carry a Super Ultra Low Emission Vehicle (SULEVII) rating, have the latest EPA fuel efficiency of 20 mpg city and 22 mpg highway and yet, can scoot from zero to 60 mph in just 5.5 seconds.

World's First "Full Hybrid" V8 Powertrain

Lexus introduced a first-drive of the LS 600h L for the media at the Toyota Arizona Proving Ground, an hour's drive northwest of Phoenix. The nearly 12,000 acre facility contains a ten-mile oval track and numerous areas for performance and safety evaluation tests.

The LS 600h L is the world's first vehicle of any type to be powered by a "full hybrid" V8 powertrain. Full hybrid means the car can be powered by the gas engine only, the electric motor only, or both at the same time.

Unlike its gasoline-only cousins, the LS 460 and LS 460 L, both of which are rear-wheel-driven, the new hybrid limousine is an all-wheel-drive configuration. During normal driving conditions, power is split 40 percent front/60 percent rear. If the road becomes dicey, it is capable of a near 50/50 split.

An all-new dual-stage continuously variable transmission (CVT) with a sequential shift mode allows manual selection of eight different stages of acceleration response. It also features the selectable modes of the company's conventional models: "power" and "snow" in addition to a "hybrid" mode.

"It is fair to say that there is nothing on the road, or on the drawing board, which comes close to delivering such a formerly contradictory combination of jaw-dropping engine performance, fuel efficiency and clean emissions," said Bob Carter, Lexus Division group vice president and general manager.

Techno-luxury

When it rolls into showrooms, the LS 600h L will be one of the most technologically dense cars you can buy. There's a power rear-ceiling-mounted 3.0 VGA 9-inch entertainment screen. Occupants' body heat is measured with infrared sensors to adjust the cabin temperature while ceiling climate diffusers gently distributes air movement.

The amply sized LS 600h L—provided it has the right options—parks itself. Pull up to a space, select reverse and the car steers automatically into the gap, using sensors and a rear-view camera. All the driver needs to do is modulate the brakes.

And if all that isn't enough for your luxury needs, this hybrid pleasure cruiser also includes a stunning 19-speaker Mark Levinson audio system, voice-activated hard disk drive (HDD) satellite navigation with Bluetooth technology and XM real-time traffic system.

Techno-safety

Lexus continues to improve their VDIM stability system. It's an engineering masterpiece that integrates and manages stability control, electronic controlled anti-lock brakes, electronic brake force distribution and engine torque via an electronically controlled throttle. The system anticipates the onset of a vehicle skid or slide while cornering and helps correct the situation that is transparent to the driver.

Another world first for the 600h L is the Driver Monitor System.* It uses a camera mounted on the steering column to monitor the orientation of the driver's head. If it determines the driver is looking away from the road ahead at the same time as a collision threat is detected, the system will sound a warning chime and gently apply the brakes.

To assist the driver in maneuvering around the obstacle, the system reprograms the steering ratio, increasing the intensity and quickness of the steering response.

While all of this is going on, the passenger restraints are automatically cinched up, quite snugly I discovered, and the brake system is prepared for full force response.

If potential buyers had the opportunity to test these safety marvels as we did at the proving grounds, most would sign on the dotted line immediately.

The three previous generation LS sedans were often chided for a lack of expressive styling. Those remarks can be discarded—the long wheelbase 600h is a classic work of elegance and sophistication. It may be big, but it is sleek with complex, yet smooth flowing lines.

Torque Arrives in a Rush

Lurking under the finely chiseled hood, the all-new, jewel-smooth V8 and hybrid wizardry is totally concealed by an engine bay cover. Press hard on the go pedal, however, and the presence of the combo electric motor-gasoline engine is immediately known. Torque arrives in a rush, but the application to all four wheels seems almost graceful.

Drive a little too hard into a corner and there is a nicely controlled understeer. If you are an accomplished driver, the traction management system now has an off position, allowing the tail to sneak out.

No traces of mechanical nastiness could be detected through either the steering wheel or the pedals. Shifts move from gear to gear so unobtrusively that the tach needle sometimes provided the only clue anything happened.

The car is superbly bolted together and is as quiet as a pharaoh's tomb, whether driving 35 mph on city streets, 70 mph on Interstates or 130 mph on the proving ground test track. Only the harshest of railroad crossings can disturb the Zen-like calmness.

But really, most owners will drive, or have someone drive, the 600h L in a sensible manner and will be rewarded with what I think is the most serene motoring ride on the planet.

Since the day-long stint at the proving ground was exclusive to safety skid pad tests and performance evaluations on the oval track, I scheduled some time the following morning to try out the hybrid system during real-time traffic congestion.

I drove some 60 miles on clogged stop-and-go city streets and freeways in Phoenix. No matter how gently I pressed the accelerator pedal, the car would only operate for a few brief seconds and at no more than 5 mph with the electric-only mode.

I even pulled into two large parking lots and pushed the EV switch, a function that Lexus says “reverts the power to full electric mode for short distance, slow driving situations such as parking garages.” Same results.

In fairness to Lexus, the car was a pre-production vehicle and the inability to operate under electric power only was surely an anomaly that wouldn't occur on production models.

Chairman of the Board Equipped

As its flagship, Lexus left no need unfulfilled or wish ungranted to driver and passengers of the new hybrid sedan. There seems to be acres of leather and wood, which is sequentially matched, by the way. Seats can be heated or cooled, moved up or down and back and forth, adjusted for lumbar support and reclined.

For the ultimate in comfort and coddling, the 600h L offers a rear seating option best described as the “Ultimate Barcalounger.” With a remote control, one can stretch back, raise an ottoman to desired height and then enjoy a massage that can ease the day's tension of any chairman of the board.

Attention to detail on the new hybrid is staggering. A skilled technician checks every engine to ensure it meets Lexus's standards for aural quality. During the paint process, each car is hand sanded—twice. Genuine leather on the steering wheel is buffed for three hours to create a supple touch.

In engineering and designing the 600h L, Lexus set out to build a car that delivers the highest level of performance and technology, and the truest expression of luxury and efficiency of vehicle they had ever created. Combining these qualities usually results in compromise, for example, more power means higher fuel consumption.

But thanks to the innovative engineering and advanced hybrid power technology deployed by Lexus, the LS 600h L defines a new standard for the ultra-luxury segment. And, more green luster was added to the company's highly polished image.

* The Advanced Pre-Collision System is designed to help reduce the crash speed and damage in certain frontal collisions only. The included Driver Attention Monitor is designed to alert the driver if a potential hazard is detected ahead and the driver's face appears to be turned away. They are not collision-avoidance systems and are not substitutes for safe and attentive driving. System effectiveness depends on many factors. Please see your Owner's Manual for further information

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