

Flagship LS 460 Features Smooth and Refined Ride With 380 Horsepower

August 16, 2011

Introduced when the Lexus brand launched in 1989, the LS line-up continues to be the benchmark for incomparable comfort and performance in the flagship luxury sedan category. Exceptional craftsmanship, refinement and luxurious standard features set the LS apart from other premium luxury sedans. With the LS 460 and long-wheelbase LS 460 L, both available in rear-wheel drive (RWD) or all-wheel drive (AWD), Lexus offers choices to fit luxury consumer needs. For the 2012 model year, the Nebula Gray Pearl exterior color replaces Smoky Granite Mica.

Engine/Transmission/Drivetrain/Performance

The Lexus LS 460 models deliver the luxury of powerful, smooth performance from a 4.6-liter V8 teamed with an eight-speed automatic transmission. The engine produces 380 horsepower and 367 lb.-ft. of peak torque in rear-wheel-drive configuration; 357 horsepower and 344 lb.-ft. of torque with AWD.

The LS V8's superior performance is due in large part to innovative technologies, including the world's first electric motor-driven Variable Valve Timing with intelligence and Electronically (VVT-iE) controlled intake cam. The electrically controlled intake achieves superior engine-startup operation and high-output performance.

A dual fuel-injection system, with both port and direct injection, optimizes efficiency under all conditions. The direct injection helps provide cylinder cooling that allows the high compression ratio (11.8:1) needed to produce such high power cleanly and efficiently. The dual-tract intake system and an Acoustic Control Induction System (ACIS) contribute to the smooth, linear power delivery.

The Lexus eight-speed automatic transmission allows gear ratios that maximize torque up to the tire-grip limitations in the lower ranges yet maintains quietness and admirable fuel efficiency at higher speeds. The LS 460 can accelerate from zero-to-60 mph in about 5.4 seconds; 5.9 seconds for the AWD models.

Even with that level of performance, the LS 460 has earned an EPA-estimated 16 mpg city and 24 mpg highway rating (AWD is 16 city/23 highway) and meets Ultra-Low Emissions Vehicle II (ULEV II) certification. An ECO drive indicator helps encourage economical driving.

The AWD versions of the LS 460 and LS 460 L utilize a drivetrain almost similar to their hybrid counterpart, the LS 600h L. The AWD system features a highly compact center TORSEN® limited-slip differential that distributes drive torque between the front and rear wheels. In normal driving conditions, the front and rear torque distribution ratio is set at a rear-bias 40:60, which aids agility. The system can instantly and optimally vary torque distribution between 30:70 and 50:50, depending on driving conditions, thus helping to ensure excellent traction performance and driving control.

The AWD models also have standard 18-inch wheels with all-season tires, and a wood and leather-trimmed heated steering wheel for added luxury. All models offer the Cold Weather Package that includes a windshield deicer, upgraded battery, and more effective heater core.

Chassis/Body/Suspension/Tires/Brakes

The LS 460 delivers the ultra-comfortable ride quality that has become synonymous with the Lexus flagship LS sedans. The air suspension system, which is optional on all-wheel drive models and the LS 460 L RWD,

effectively helps control body lean to provide an extraordinarily smooth ride. The system offers three settings – including "Sport" – allowing the driver to custom-tailor suspension response from maximum comfort to sharpest handling. The LS 460 has an impressive turning circle (curb to curb) – 35.4 ft. for the LS 460 RWD; 37.4 ft. for the LS 460 AWD; 36.1 ft. for the LS 460 L RWD and 38.7 ft. for LS 460 L AWD – that yields excellent maneuverability.

The Sport Package is available only on the LS 460 RWD model. Behind the 19-inch split 10-spoke forged alloy wheels are Brembo brakes, and the package tightens handling response with an exclusive sport-tuned air suspension with specific stabilizer bars and shock absorbers. In addition, this option features sporty exterior styling with a distinctive Aero kit. Inside the LS 460 Sport adds an exclusive perforated Black/Saddle leather interior with sport front seats, a unique leather-trimmed steering wheel and paddle shifters for the eight-speed automatic transmission with throttle blip downshifting.

The LS 460 AWD models and the LS 460 L are available with Variable Gear-Ratio Steering (VGRS), and Adaptive Variable Suspension (AVS). The computer-controlled AVS system continuously adjusts shock-absorber damping rates to help provide comfort and handling precision. The VGRS system selects the steering gear ratio according to vehicle speed, enhancing responsiveness and driver control. VGRS also partners with the Vehicle Dynamics Integrated Management (VDIM) system, making minor steering adjustments to help improve control during challenging road conditions.

The interior cabin of the LS demands not only exceptional silence, but the quality of the sounds have to be pleasing to the occupants. For example, engineers tuned the sound of the doors opening and closing by studying the sounds of skillfully crafted wood doors in luxury homes. Even the sounds of onboard motors for all the power assists were specially tuned. One example: one-touch power window motors that reduce speed near the closure point. Laminated side glass (front on LS 460 and front/rear on LS 460 L) further reduces outside noise intrusion.

Safety/Security Features

The Lexus LS sedans provide one of the most advanced and comprehensive integrations of vehicle-safety technology today. Active front headrests on all models are designed to help reduce the severity of whiplash-type injuries in certain rear end collisions. Active safety features include the VDIM system, which by itself integrates and manages the Electronically Controlled Brake (ECB) system, Electronic Power Steering (EPS), Vehicle Stability Control (VSC), Anti-lock Braking System (ABS), Electronic Brake-force Distribution (EBD), and engine torque via the electronically controlled throttle.

Taking input from an array of sensors in the vehicle, VDIM anticipates the onset of a vehicle skid while cornering, and it then helps correct the condition with a combination of braking, throttle, and steering control. The VDIM system gathers data from more sources – processed earlier and more quickly than in previous dynamic handling systems – to help make operation in the LS even more seamless and effective. If it becomes necessary to extricate the car from deep snow or other difficult conditions, such as mud or sand, the "TRAC off" switch may be used to turn off the VSC.

The LS luxury sedans also feature standard Smart Stop Technology as an additional measure of consumer confidence. The braking system enhancement will automatically reduce engine power when the brake pedal and the accelerator pedal are applied simultaneously under certain driving conditions.

The LS is standard-equipped with eight airbags, including side curtain airbags, front seat-mounted side airbags and knee airbags for the driver and front passenger. Rear seat-mounted side airbags are also available. Standard xenon high-intensity discharge (HID) headlamps provide superior road illumination. The standard Adaptive Front-lighting System (AFS) helps to illuminate a turn or curve as the driver steers into it.

The Lexus LS is the world's first to offer the available Advanced Pre-Collision System (APCS). APCS reactive pedestrian system designed to help detect pedestrians in the vehicle's path and to react by braking. Using two small cameras mounted at the front of the car that work in conjunction with millimeter-wave radar, APCS is sensitive enough to detect certain objects with low reflectivity or an object's lateral position.

As part of APCS, the Driver Attention Monitor System is also available on the LS 460 L. A camera mounted on the steering column monitors the orientation of the driver's face. If the camera detects that it appears the driver is not looking ahead for a few seconds or more, and/or if an obstacle is detected ahead, the system alerts the driver first with a warning chime and a flashing light.

As the car gets closer to the obstacle, APCS can begin to gently apply the brakes on its own. The system also prepares the brake system to respond with full force when activated by the driver and automatically retracts the front seatbelts in anticipation of a possible impact. To help assist the driver in maneuvering around the obstacle, the system reprograms the steering ratio, amplifying the intensity and quickness of the steering response.

When equipped with APCS, the LS 460 L adds Lane Keep Assist (LKA) and Dynamic Radar Cruise Control (Dynamic Radar Cruise is also available with regular PCS). The front-mounted cameras detect visible lane markings on the road, and if the system detects the driver drifting into another lane, it sounds a warning and can apply torque to the electric steering system to help the driver stay in the intended lane.

Luxury/Comfort/Convenience

The LS has numerous user-tech amenities for a comprehensive luxury package. The driver's seat features a standard slide-away feature that makes ingress/egress more comfortable; a multi-information display uses a large center console LCD screen; and the available navigation system employs voice command casual-language based voice recognition and Bluetooth® phonebook download capability. The audio system features an integrated SiriusXM Radio receiver, music playing capability with Bluetooth audio streaming and USB/iPod® connectivity. An iPod connected through the USB port can be controlled through the steering wheel audio controls or headunit.

The Lexus LS models continue a tradition of offering a comprehensive roster of true-luxury standard features. Customers can choose from four leather and wood-trimmed interior combinations. Pampering begins with a 16-way power driver's seat and 12-way power front passenger seat, dual zone automatic climate control with smog sensor, and a power tilt/slide moonroof.

Controls in the LS 460 models provide the utmost convenience; including SmartAccess with push button start/stop, and a power tilt/telescoping steering wheel with audio, brake hold and multi-information display controls. An automatic electric parking brake system eliminates the need to press a foot-operated pedal.

The LS 460 and LS 460 L models also offer Advanced Parking Guidance System (APGS) to assist with parallel and back-in parking. Once the driver has correctly positioned the car and identified the desired parking space via the navigation screen, APGS uses the rear back-up camera, parking sonar sensors and electric power steering system to guide the car into the space. The driver controls vehicle speed via the brake.

The LS 460 L augments the already long list of luxury amenities by including as standard: Intelligent High Beams that automatically dim for oncoming traffic; climate-controlled front seats; heated rear seats; heated steering wheel; power rear sunshade; a one-touch open/close power trunk; easy close doors; Intuitive Park Assist; and headlamp washers. These luxury features are available for the LS 460.

Luxury Options

Lexus offers several LS 460 option packages. The Comfort Package includes a power trunk closer, Intuitive Park Assist, heated rear seats and heated and cooled front seats. A heated steering wheel is also included in the

Comfort Package for LS 460 RWD. The Comfort Plus Package includes those features plus semi-aniline leather, power rear seats with lumbar massage and power butterfly headrests, and rear seat-mounted side airbags.

The optional Luxury Package on the LS 460 L includes semi-aniline leather trimmed interior, an Alcantara headliner, and rear door power sunshades.

A Rear Seat Upgrade package for the LS 460 L models includes Luxury Package features and rear lumbar massage; rear power butterfly headrests; power rear seats with memory; rear seat-mounted side airbags; dual-zone rear air conditioning with air purifier and additional rear air ducts; additional wood trim; rear cool box; and rear audio controls.

The Executive Class Seating Package for the LS 460 L likewise includes power butterfly rear headrests; lumbar massage for the rear driver's side seat; four-zone independent front and rear air conditioning with Lexus' Air Purification system and ceiling climate diffusers; rear-door power sunshades with a fixed rear console and foldout table; and a passenger's side rear seat recliner with ottoman leg rest.

This package's ottoman seat reclines up to 45 degrees with an upper-back recliner featuring a 17-degree angle adjustment. In addition, the available driver's side rear power seat also reclines up to 38 degrees, and the rear seat moves front to back approximately three inches. The climate control is further upgraded with an infrared sensor located in the headliner that measures temperature at the lap, upper body and seat on each side to adjust airflow appropriately.

A multi-function massage feature includes an enhanced massage mode for the passenger's side rear seat. The massage feature can be used alone or in conjunction with the seat heater or cooler. This comprehensive package also equips the LS 460 L with a rear-seat entertainment system using a nine-inch LCD screen that deploys from the ceiling.

The exterior styling found on the optional Sport Package is also available alone as the Appearance Package. Common to both packages are the unique front grille and Aero kit, which features a front lower spoiler, side rocker panels, and rear lower spoiler. RWD models with the Appearance Package also ride on 19-inch five-spoke wheels.

The available 19-speaker, 450-watt Mark Levinson® Reference Surround Sound system creates a benchmark for mobile audio systems with its theater-level entertainment experience and includes a DVD/CD changer. Bluetooth® technology enables voice input of telephone numbers.

The LS also offers a telematics system, Lexus Enform® with Safety Connect®, available by subscription. Complimentary one-year trial subscriptions are included on all purchases of new Lexus vehicles equipped with these features. Safety Connect® is standard on all vehicles while Lexus Enform with Safety Connect is included with vehicles equipped with the optional Navigation system. The Lexus Enform and the Safety Connect response centers operate 24 hours a day, 7 days a week—every day of the year.

Lexus Enform vehicles are factory ready for subscriptions to a variety of innovative SiriusXM services including NavTraffic, NavWeather, Sports, and Stocks. SiriusXM services offer complimentary 90-day trial subscriptions and require separate audio and data subscriptions.

Exterior Design

The LS 460 flagship models showcase the brand's L-finesse design philosophy, revealing a family resemblance that conveys elegance, refinement and a strong emotional appeal. Minimal body gaps, a low front grille and deep-drawn fenders all contribute to the car's distinctive, muscular profile. Lexus' attention to detail is seen in the integrated dual chrome exhaust tips and the one-piece chrome window surround.

Interior Design

The thin film transistor multi-informational display and Optitron instrument cluster set the tone for blending functional high-tech with pleasing aesthetics. Tasteful wood and chrome trim as well as refinements to the interior lighting create a rich feeling, including LED ambient interior lighting with spot-lamp illumination in front and rear. Even the angles on the center console were optimized to enhance comfort for the driver and front passenger.

As a further example of Lexus' passionate attention to luxury detail, the LS steering wheel is wrapped by supple, twice-buffed leather. The water-based dye used on the leather provides a more natural feel, and a whipstitch pattern ensures a smooth wheel surface without any unevenness or jumps in the stitch.

Warranty

All new Lexus vehicles come with a 48-month/50,000-mile basic limited warranty with roadside assistance for 48 months/unlimited miles. Powertrain and restraint system coverage is provided for 72 months/70,000 miles. Corrosion perforation protection is covered for 72 months, regardless of mileage.

###