



# The New Lexus GS: Exploring New Frontiers In Dynamic Performance And Safety

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## KEY POINTS

- All-new third generation Lexus GS executive saloon series
- First production Lexus designed to new L-Finesse design principles
- Choice of new 3.0-litre V6 or 4.3-litre V8 engines, both with dedicated six-speed automatic transmissions
- Four versions for the UK market: GS300, GS300 SE, GS300 SE-L and GS430
- Major advances in active and passive safety provisions
- Superior crash protection for both passengers and pedestrians designed-in
- First application of Lexus Vehicle Dynamics Integrated Management (VDIM)
- VDIM provides smooth co-ordination and application of braking, steering, stability and traction control systems
- 10 airbags standard on GS300 including segment-first dual-stage knee airbags
- 12 airbags standard on GS300 SE, SE-L and GS430, including outer rear seat side airbags
- Adaptive Cruise Control and Pre-Crash Safety (PCS) system standard on GS430, optional on GS300 SE-L
- Standard features include smart key entry and start-up, front and rear parking sensors (on SE model upwards) intelligent automatic air conditioning, Bluetooth® connectivity and 10-speaker sound system with six-disc CD autochanger
- Premium Mark Levinson hi-fi standard on GS300 SE-L and GS430
- Satellite navigation and rear parking monitor standard on SE grade and higher
- On sale in the UK from April

## A NEW ERA FOR LEXUS

The launch of the all-new third generation GS marks a watershed in the history of Lexus, as it is the first car to be marketed globally by the prestige brand. As well as being sold in Lexus's established territories in Europe and North America, it is also a central element for Lexus's range for its debut this year in its home market in Japan.

In styling terms it marks the opening of a new chapter of Lexus design. Its powerful form has been created in line with the principles of L-Finesse, a new direction in design that is defining the looks of a whole new breed of Lexus models.

If the car's appearance is an immediate attention-grabber, what lies beneath the metal is even more exciting: the new GS will bring advanced levels of safety and dynamic performance to the

Premium E segment, demonstrating how Lexus continues to raise the industry benchmarks for vehicle quality, technology and specification.

The GS benefits from a series of new systems that improve safety and handling and enhance the driving experience. Although the technology is sophisticated, its operation is seamless and effective, making the vehicle no more complex to drive but bringing added rewards in terms of safety and dynamic performance.

The range includes a new V6 and a powerful V8 engine, both with bespoke automatic transmissions that provide a great combination of smooth power delivery and sporting character to give the GS more driver appeal than ever before.

The new GS will arrive in UK showrooms in April. Four versions will be offered: the GS300, GS300 SE and GS300 SE-L with the V6 engine and the V8 powered GS430. Prices and full specifications will be announced nearer the time of launch.

### **THE POWER TO PLEASE**

The range will be introduced with two petrol engines: a new 3.0-litre V6 that musters 245bhp and a maximum 310 Nm of torque at 3,500rpm, and a 4.3-litre V8 unit, producing 279bhp and 417 Nm at 3,500rpm. The V6 will move the GS300 from rest to 62mph in 7.2 seconds and achieve a 148mph top speed, while the V8 in the GS430 cuts the acceleration time to 6.1 seconds and is capable of 155mph (electronically governed).

Both engines are matched to new six-speed automatic transmissions, engineered to suit each unit's performance characteristics. An artificial intelligence shift system (AI-SHIFT) adapts gearchange patterns to suit road conditions and individual driving style. The transmissions also feature a sequential shift function, to allow the driver to select the gears manually, if desired.

### **NEW DIMENSIONS IN SAFETY**

The heart of the new GS's exceptional safety profile is the vehicle's robust construction. Designed to achieve the top five-star rating in Euro-NCAP testing, it features an energy absorbing crash box structure at the front, new-design hexagonal cross-section side members and larger bumper reinforcements, better to soak up and disperse front-end impact forces.

Side collision performance is improved by strategic reinforcements in the side pillars and cross members and a design that directs impact energy to the transmission tunnel, so limiting body deformation. Energy-absorbing trim is used in the cabin for better protection against head injuries, in advance of new European Union regulations coming into force.

Pedestrian safety has also been carefully addressed, with the bonnet, engine cowl and front bumper having a crushable design. The bonnet is shaped to disperse impact energy over a larger area and also to lessen the risk of serious head injuries, by off-setting the angle of head impact. Components such as the bonnet release catch have been shaped and shielded to reduce the danger of leg injuries.

### **COMPLETE CONTROL WITH VDIM**

The new GS is equipped with a comprehensive array of active safety systems, including ABS, Brake Assist (BA), Traction Control (TRC), Electronic Brakeforce Distribution (EBD) and Vehicle Stability Control (VSC).

Working independently, these provide excellent car control, but Lexus goes further to integrate their operation using a new system – Vehicle Dynamics Integrated Management (VDIM).

VDIM, which will feature on other new Lexus models, is introduced for the first time on the GS430. Active safety systems typically come into play to control vehicle as it nears its performance threshold. Through VDIM, however, they are co-ordinated and activated earlier, for smoother control and progress.

The heart of the system is the Electronically Controlled Brake (ECB) ECU. This monitors sensor information to determine the optimum level of braking for each wheel, steering angle and engine output. Commands are then sent by the ECU instantaneously to the ECB, power steering and engine control systems to achieve the optimum operating balance.

In this way, VDIM can keep the car smoothly under control in straight and corner braking; braking conditions where left and right wheels are on surfaces with different levels of traction; cornering where understeer or oversteer threaten a skid; and in conditions where front or rear wheel slip occurs.

### **AIRBAGS 10 TO THE DOZEN**

GS300 models will be fitted as standard with 10 airbags, including the segment's first dual-stage double knee airbag. The count rises to 12 for the GS300 SE and SE-L and the flagship GS430, with the addition of side airbags for the outer rear seats.

Front side airbags are the large thorax-abdomen-pelvis type for extra protection. Both front and rear passengers are protected by curtain airbags.

Front and rear right and left seats are fitted with seatbelts with pretensioners and force limiters. The belts can also be easily adjusted to suit younger child passengers.

### **PROTECTED BY RADAR**

Adaptive cruise control is available as an option on GS300 SE-L models and is standard on the GS430. This uses millimetre-wave radar technology to ensure the car keeps a safe distance from the vehicle in front and also incorporates Lexus's Pre-Crash System (PCS).

PCS uses the radar system to detect obstacles ahead and matches information this to constant data on vehicle speed, steering angle and yaw rates to determine if a collision is unavoidable. Should an impact be predicted, PCS automatically takes up any slack in the front seatbelts and adjusts the vehicle's Brake Assist System (BAS) to ensure maximum force when the driver applies the brakes.

### **SEE AND BE SEEN**

Safer night-time driving is enabled, thanks to the superior illumination provided by the High Intensity Discharge headlamps with Lexus's Adaptive Front-lighting System (AFS). Standard on all GS models, AFS monitors the vehicle's turning radius and moves the angle of the headlamp beams to improve forward lighting through bends in the road.

Rain-sensing wipers are also part of the GS package, designed for quicker response by using a new reflection-type sensor that detects droplets on the windscreen across a wider area of glass than is the case with rival models from BMW and Mercedes-Benz.

Front and rear parking sensors help prevent unwelcome parking scrapes, while models equipped with satellite navigation additionally feature a rear monitor which transmits the view from behind the car to a dashboard screen for safe and simple reversing manoeuvres.

## **SHEER CLASS COMES AS STANDARD**

The new GS range builds on Lexus's reputation for providing class-leading specifications, embracing many features that are frequently extra cost options, or in some cases simply unavailable on rival models.

The high level of standard equipment includes Bi-xenon high Intensity Discharge (HID) headlamps, 7-inch Multi Information Display unit giving touch screen control of audio, climate and satellite navigation controls, cruise control and smart key entry for easy entry and vehicle start-up. An intelligent automatic air conditioning system is also standard equipment which comes equipped with a pollen filter, a dust and pollen removal function and a humidity detector to keep the cabin air pure.

GS300 and GS300 SE versions of the car feature a 10-speaker sound system with six-disc CD autochanger, but on the GS300 SE-L and GS430 models the audio package is a 14-speaker Mark Levinson®-designed hi-fi offering exceptional sound reproduction quality.

Keeping up with the demands of modern communications, the GS has Bluetooth® connectivity. All models except the entry-level GS300 benefit from satellite navigation with Electronic Traffic Avoidance, a function that gives the driver the option of automatic re-direction to avoid any delays detected ahead on a programmed route.

The leather-trimmed steering wheel features additional controls for the audio system, cruise control and voice command function for the satellite navigation and telephone system, where fitted. A wood and leather steering wheel is fitted as standard to the GS430.

The luxury ambience of the interior is heightened with the use of LED lighting. Lexus is pioneering this technology in the automotive sector, recognising the benefits of greater reliability and efficiency that are also seeing it being adopted for next-generation airliners. Leather upholstery is standard on all bar the GS300 model.

## **LEXUS GS TECHNICAL SPECIFICATION HIGHLIGHTS**

<b>ENGINE</b>	<b>GS300</b>	<b>GS430</b>
Type	V6	V8
Valve mechanism	24-valve DOHC with Dual VVT-i	32-valve DOHC with VVT-i
Bore x stroke (mm)	87.5 x 83.0	91 x 82.5

Displacement (cc)	2,995	4,293
Max. power (bhp @ rpm)	245 @ 6,200	279 @ 5,600
Max. torque (Nm @ rpm)	310 @ 3,500	417 @ 3,500
<b>PERFORMANCE</b>		
0-62mph (sec)	7.2	6.1
Maximum speed (mph)	148	155
<b>FUEL ECONOMY/EMISSIONS/</b>		
Combined (mpg)	28.8	24.8
CO2 emissions (g/km)	232	269
<b>DIMENSIONS</b>		
Overall length (mm)	4,825	
Overall width (mm)	1,820	
Overall height (mm)	1,430	
Wheelbase (mm)	2,850	
<b>WEIGHTS</b>		

Kerb weight (kg)	1,620	1,695
Gross vehicle weight (kg)	2,125	2,160
<b>TRANSMISSION</b>		
Code	A690E	A761E
Type	Six-speed automatic	Six-speed automatic
<b>SUSPENSION</b>		
Front	Double wishbone	
Rear	Double wishbone	
<b>BRAKES</b>		
Front	Ventilated discs	
Rear	Ventilated discs	
<b>WHEELS AND TYRES</b>		
Wheels	17x7 JJ 18x8 JJ (SE-L)	18x8 JJ
Tyres	225/50R17 245/40R18 (SE-L)	245/40R18

## LEXUS GS SERIES SPECIFICATION HIGHLIGHTS

<b>SAFETY</b>	<b>GS300</b>	<b>GS300 SE</b>	<b>GS300 SE-L</b>	<b>GS430</b>
Driver and front passenger airbags	√	√	√	√
Driver and front passenger side airbags	√	√	√	√
Driver and front passenger knee airbags	√	√	√	√
Rear passenger side airbags	x	√	√	√
Front and rear curtain shield airbags	√	√	√	√
ABS with Electronic Brakeforce Distribution and Brake Assist	√	√	√	√
Electronically Controlled Braking	√	√	√	√
Vehicle Stability Control	√	√	√	√
Traction Control	√	√	√	√
Vehicle Dynamics Integrated Management (VDIM)	√	√	√	√
Tyre Pressure Warning system	√	√	√	√
<b>INSTRUMENTS &amp; CONTROLS</b>				
7-inch LCD touch-screen display	√	√	√	√

Lexus DVD-based navigation system with voice recognition & ETA	x	√	√	√
Rear view monitor	x	√	√	√
Bluetooth® connectivity	√	√	√	√
<b>AUDIO</b>				
10-speaker audio system	√	√	x	x
Mark Levinson® 14-speaker system	x	x	√	√
In-dash six-disc CD autochanger	√	√	√	√
<b>COMFORT &amp; CONVENIENCE</b>				
Smart key entry system	√	√	√	√
Push-button start	√	√	√	√
Speed-sensitive Electronic Power Steering	√	√	√	√
Cruise control	√	√	√	√
Adaptive Cruise Control and Pre-Crash Safety system	x	x	Opt	√
LED entry and footwell lighting	√	√	√	√

Leather-trimmed multi-function steering wheel	√	√	√	x
Wood and leather- trimmed multi-function steering wheel	x	x	x	√
<b>VENTILATION</b>				
Automatic climate control with clean air filter	√	√	√	√
Electric tilt/slide glass sunroof	√	√	√	√

<b>SEATING UPHOLSTERY &amp; TRIM</b>				
Eight-way electrically adjustable front seats	√	x	x	x
Eight-way electrically adjustable front seats with lumbar support	x	√	√	√
Heated and ventilated front seats	x	√	√	√
Leather seat trim	x	√	√	√
Wood trim detailing	√	√	√	√
<b>BODY EXTERIOR</b>				
High Intensity Discharge headlamps	√	√	√	√
Adaptive Front-lighting System (AFS)	√	√	√	√

17-inch 10-spoke alloy wheels	√	√	x	x
18-inch five-spoke alloy wheels	x	x	√	√

**ENDS**