



# NEWS

## THE ALL-NEW 2013 RANGE ROVER

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### Land Rover Introduces the Next Generation of the World's Most Iconic Luxury SUV

#### Canadian Models and MSRP<sup>5</sup>:

Range Rover Supercharged:	\$114,750
Range Rover Autobiography:	\$144,000

*Price excludes \$1,270 destination and delivery<sup>5</sup>*

#### At A Glance:

- Unmistakably a Range Rover, a modern interpretation of iconic design cues
- Legendary Land Rover off-road capability with transformed on-road handling and agility
- Lighter, stronger and more refined. The world's first SUV with an all-aluminum unibody structure
- Canadian specification V8 model is approximately 250kg lighter than similarly equipped outgoing model
- A more spacious and luxurious interior provides a truly composed motoring experience for all occupants. Rear legroom increases 120 mm (4.7 inches)
- Adaptive dynamics suspension system further refines ride quality
- Enhanced all-terrain performance with the introduction of a new fully automatic Land Rover "Terrain Response 2 Auto®" system
- Designed and engineered in Britain at Land Rover's development centres throughout the UK
- Manufactured in a new aluminum production facility at Land Rover's Home in Solihull, United Kingdom

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**(Mississauga, ON) - Oct. 2, 2012** - The new 2013 Land Rover Range Rover has been engineered from the ground up to be the most capable, most refined Range Rover ever. Lighter, stronger, and with new levels of refinement, the next Range Rover reinforces its position among finest luxury vehicles.

As the fourth generation of the Range Rover line, this all-new model was developed from the ground up, capturing the innovative spirit and iconic design of the original model which changed the world of motoring when it was launched over 40 years ago.

Designed and engineered at Land Rover's development centres in the United Kingdom, the next Range Rover will be produced at a new manufacturing facility at Solihull, United Kingdom which employs the latest low-energy aluminum body construction technologies.

The all-aluminum unibody structure is 39 percent lighter than the steel body in the outgoing model. This new aluminum platform delivers significant enhancements in performance and agility, along with an improvement in fuel economy and reduction in CO<sub>2</sub> emissions.

In addition to the strong and rigid aluminum body, an all-new aluminum front and rear chassis architecture has been developed and paired with a completely re-engineered four-wheel air suspension. The luxurious ride has been retained, while the vehicle's handling and agility have been sharpened. The new suspension architecture delivers flatter, more confident cornering abilities, with a natural and intuitive steering feel.

John Edwards, Land Rover Global Brand Director, said: "The new Range Rover preserves the essential, unique character of the vehicle – that special blend of luxury, performance and unmatched all-terrain capability. However, its clean sheet design and revolutionary lightweight construction have enabled us to transform the experience for luxury vehicle customers, with a step change in comfort, refinement and handling."

Within the cabin, the all-new Range Rover provides occupants with a sensation of serene isolation, meeting the highest standards for Range Rover refinement. Measures like the rigorously developed body structure and acoustic lamination of the windshield and side door glass have significantly reduced noise levels, while the new suspension architecture has enabled engineers to achieve heightened levels of ride comfort, refinement, and control.

With over 120 mm (4.7 inches) more legroom than the outgoing model, the rear occupants benefit from increased space and comfort.

To deliver the characteristic effortless performance expected by customers, the Range Rover will offer a V8 supercharged engine in the Canadian market, enhanced by new eight-speed ZF automatic transmissions.

Each new Land Rover model is extensively tested for durability and reliability. The new Range Rover has been subjected to Land Rover's punishing on-and off-road test and development regime. A fleet of development vehicles covered millions of miles over 18 months, with arduous tests in more than 20 countries through extremes of climate and road surfaces.

The all-new Land Rover Range Rover has a clean and elegant shape which is inspired by a fresh new interpretation of classic Range Rover design cues. While instantly recognizable as a Range Rover, the new vehicle takes a step forward with a bold evolution of the model's iconic design language.

The sumptuous interior incorporates distinctive Range Rover design cues, but executed with a very contemporary treatment. Clean, elegant surfaces are flawlessly presented using the finest leathers and veneers.

“Designing the next generation Range Rover, following over forty years of success, came with a huge responsibility to protect the DNA of such an icon,” said Gerry McGovern, Land Rover Design Director and Chief Creative Officer. “Our design team worked incredibly hard to capture the elegant proportions and pure surfaces which have been a feature of the best Range Rover designs.”

The all-new Range Rover has been engineered with the latest developments in vehicle technologies. Exclusive sound systems by renowned British audio specialists Meridian™ are standard. A thoughtfully designed split power folding upper and lower tailgate setup offers ease of access and versatility. Advanced chassis and driver assistance technologies are abundant. Among the innovations featured in the new Range Rover is the next-generation of Land Rover’s Terrain Response® system, which analyzes the current driving conditions and road surfaces through on-board sensors, and automatically selects the most suitable vehicle settings program for the terrain.

The all-new Range Rover will be available in over 170 markets worldwide, with Canadian customer deliveries scheduled to start in December 2012.

“Launching the all-new Range Rover represents a major milestone for Land Rover, being the first exciting output from an unprecedented investment in premium vehicle technologies,” said John Edwards, Land Rover Global Brand Director.

## **DESIGN**

The unmistakable Range Rover design, from its distinctive silhouette to the strong architecture of its cabin, has been at the core of the model’s appeal. In developing the new model, Range Rover designers drew upon this rich heritage, but created a new vision that would be relevant for a new generation of Range Rover customers. While instantly recognizable as a Range Rover, the new vehicle takes a step forward with an evolution of the model’s iconic design language. Its smoother and more contemporary appearance signals the advanced technology under the skin.

“To many owners, the design of the Range Rover has become something of an icon,” said Gerry McGovern, Land Rover Design Director and Chief Creative Officer. “So our goal with the new product was to retain that distinctive spirit, but with a thoroughly modern interpretation of Range Rover design cues.”

The new Range Rover has a similar footprint to the outgoing model, with a smoother and more streamlined profile. It is the most aerodynamic Range Rover ever, with a drag coefficient starting from 0.34, and a roofline that sits 0.8-in. (20mm) lower in the electronic air suspension system’s Access mode. The elegant proportions of the body, along with the subtle taper to the roofline and the pure, clean treatment of the body surfaces, further enhance the more contemporary feel.

With its distinctive headlamp and grille design, signature clamshell hood, and the floating roof, the design retains the signature Range Rover character. However, the rearward angle of the grill, the more sculpted corners, along with the more acute A-pillar angle, all point to the more streamlined nature of the

shape. The sleeker and more aerodynamic profile is also evident at the rear, where there is a distinctive taper to the bodywork.

The vehicle's contemporary appearance is enhanced by crafted design details. Because the air intake has been relocated higher into the hood, benefitting wading performance in deep water, a functional fender vent is no longer required. A modern interpretation of the vent motif now appears on the front doors.

Lower down the door structure, accents sweep around the body and flow into the rear of the vehicle, and are continued in the front and rear bumpers. With a silver metal finish, the graphics hint at the vehicle's new aluminum structure. Another design cue, the floating roof, has been enhanced through the adoption of near-flush side glass combined with a gloss black finish to the pillars.

The front lamps continue the evolution of the Range Rover "face." Distinctive signature lighting graphics use LED light blade technology, showcasing the hallmark interlocking circle design. The main projector beams are designed to resemble a camera lens. The rear lamps continue the stacked treatment of the outgoing model with a new design that is rendered using LED technology. The main tail and stop lamps have a square pattern, while the turn signals use a new interpretation of the 'triple line' design from the outgoing model. The LED centre high-mount stop light, positioned under the tailgate spoiler, creates a blade of light across the rear of the vehicle when illuminated.

Land Rover designers created an interior with a modern character, incorporating distinctive Range Rover design cues with a contemporary treatment. The cabin retains the characteristic strong architectural forms, emphasized by clean and elegant surfaces rendered with the finest leathers and veneers. The centrepiece of the cabin is the intersection between the horizontal elements of the instrument panel and the vertical lines of the centre console. The broad centre console creates a focal point in the cabin. Its sculptured veneer surface appears to float above the supporting trim, drawing attention to the quality of the materials.

The clean lines of the instrument panel and console reflect the effort to refine and simplify the interior. The control layout features 50 percent fewer switches than the outgoing model.

Premium quality leather is lavishly applied to the interior, covering nearly every surface from the seats and instrument panel to the doors and headlining. Every detail of the stitching is carefully specified, from the length and direction of the stitching, to the spin, thickness and material of the thread. Even the size and shape of the needle is defined, to ensure the highest quality finish.

Among the choices of luxurious veneers and finishes, three real wood veneers are sourced from sustainable sources. The sculptured veneer surfaces of the centre console and door panels are hand crafted by experienced veneer specialists.

On the centre console, the sliding shutter that covers the cup holders has a crafted solid lid that slides into a recess in the centre console.

This focus on craftsmanship is well illustrated by metal details, which provide contrast to the leather and veneers surfaces. Examples include the brushed aluminum pillars each side of the centre console, the rotary transmission control with its precision machined finish, and the distinctive air vents with each blade highlighted with a line of satin chrome. The aluminum finish on the centre console is created using a proprietary technique in which the aluminum material passes through more than 20 distinct processes to provide an exquisitely crafted finish.

Customers will also appreciate the LED mood lighting, which has been designed to enhance the interior ambience and highlight the cabin's architecture

### **FEATURES AND OPTIONS:**

Range Rover customers demand a high level of individual choice, and the new model offers a broader choice of interior and exterior colour options, alloy wheels up to 22-inches in diameter.

### **ENGINEERING**

From the first Range Rover model introduced more than 40 years ago, all-terrain capability and performance has been a fundamental element of the brand's DNA. With the launch of the fourth-generation, the adoption of the latest body and chassis technologies further elevates Range Rover capability and performance. Enhancements are notable in both its on-road handling and refinement and the breadth and accessibility of its off-road capability.

"We have engineered this vehicle from the ground up to be the most versatile, most capable Range Rover ever," said Nick Rogers, Range Rover Vehicle Line Director. "Our customers take for granted that this vehicle will cope with anything it's asked to do, and we have used all of our experience and technology to exceed their expectations once again."

#### **Refined and effortless driving experience**

The Range Rover is renowned for providing occupants a sensation of serene isolation from the hectic world outside, and the new model has been engineered to meet the highest expectations for refinement.

Meticulous attention to detail throughout the development process has eliminated unwanted sounds and traces of harshness, and measures like the strong aluminum body structure, acoustic lamination of the windshield and side door glass, and new-isolated engine mounts all help reduce noise.

The new aluminum chassis architecture is combined with completely re-engineered four-wheel air suspension. Together, these enabled engineers to achieve a more luxurious ride comfort and refinement, in addition to more confident and agile on-road handling.

With its torque-rich V8 engines, the new Range Rover delivers swift and effortless performance. Canadian customers have available a 510 hp Supercharged V8 paired with a smooth and responsive ZF eight-speed automatic transmission.

True to the Range Rover DNA, the new model features the Command Driving Position, placing the driver in an elevated, upright seating position to provide a superb sense of confidence and control.

### **Aluminum intensive design**

The all-new Range Rover all-aluminum unitized body structure is 39 percent lighter than the steel body in the outgoing model. Combined with weight savings throughout the chassis and driveline, the structure contributes to a model-for-model weight saving of approximately 250 kg compared to the outgoing model. The body shell alone weighs 185 kg (408lbs) less than that of the previous model.

In addition to being much lighter, the new aluminum structure also exhibits very high strength and has been engineered to withstand the same punishing off-road impacts as all Land Rover models. The aluminum body structure has been subjected to the most extensive development process ever undertaken by Land Rover. Extensive use of computer simulation tools – demanding well over the equivalent of 1,000 years of processor time – has resulted in an incredibly efficient structure. Engineers used the latest ‘multi-dimensional’ CAE optimization tools, which made it possible to minimize the weight, while simultaneously delivering outstanding stiffness and refinement together with excellent safety performance. Powerful simulation tools more typically used to model crash events were used to analyze the punishing off-road load situations that form a key part of Land Rover engineering development, such as the crunching ‘ditch drop’ impact.

A key factor in engineering such a weight-efficient body is the way different forms of aluminum components are employed within the structure: pressed panels, plus cast, extruded and rolled aluminum alloy parts, are combined in a rigid structure where the strength is concentrated precisely where the loads are greatest. The resulting structure protects occupants using a high-strength and stable passenger cell, and provides a very stiff platform for superior NVH characteristics and vehicle dynamics.

Innovations to further reduce weight and enhance performance include the first automotive use of high strength AC300 aluminum within the crash structure. In another automotive first, the entire vehicle bodyside is pressed as a single aluminum panel, reducing the amount of joints, eliminating complex assemblies and improving structural integrity.

In addition to the aluminum body construction, the key weight-saving technologies in the vehicle include:

- All-aluminum door construction, including high performance aluminum side intrusion beams
- Advanced composite reinforced aluminum B-pillars, to minimize intrusion in side impacts
- All-new front and rear suspension design with all-aluminum front and rear subframes
- Highly refined spring, damper and anti-roll bar designs
- All-new aluminum final drive units
- High precision magnesium castings used for the cross car beam and front end carrier
- SMC (reinforced polymer composite) upper tailgate panels
- Aluminum Brembo front brake calipers

- High-strength steel seat structure
- All-new lightweight alloy wheel designs

### **Most aerodynamic Range Rover ever**

With its more streamlined and rounded profile, the new model is the most aerodynamic Range Rover ever, achieving a drag coefficient ( $C_d$ ) of 0.34, a 10 percent improvement compared to the outgoing vehicle. Aerodynamic underfloor paneling has been incorporated to create a smooth, flat profile under the vehicle. Additional deflectors have been added around the front and rear suspension components, with front and rear undertrays around the main driveline components. Enhanced air flow features include near-flush glazing on the A-pillars and vehicle side glass; separation edges incorporated in the rear lamps and D-pillars; aerodynamic shaping of the door mirrors and upper rear spoiler.

Water management on the vehicle includes hydrophobic coating on the front side door glass to help keep it clear of droplets, specially shaped roof panels to avoid unwanted drips when tailgate is opened, and a rear wiper/washer designed to avoid annoying drips.

### **Exceptional all-terrain performance – with innovative Terrain Response® 2 system**

Building on Land Rover's legendary heritage in vehicles capable of tackling the difficult climates and road surfaces, the all-new Range Rover has been developed to achieve exceptional all-terrain capability, with composure in all conditions. Among the new innovations is a next-generation automatic version of Land Rover's Terrain Response® system.

Developed by a team of Land Rover specialists with extensive experience in all-terrain technologies, Terrain Response® 2 features an automatic setting that uses on-board vehicle sensors to analyze the current road surfaces and driving conditions, and then automatically select the most suitable terrain program. The new system is able to switch automatically between the five settings: General; Grass/Gravel/Snow; Mud/Ruts; Sand; and Rock Crawl.

Like all Terrain Response® systems, each setting optimizes capability and traction by adapting the responses of the vehicle's engine, transmission, centre differential and chassis systems to match the demands of the terrain. Terrain Response® 2 will also provide the driver with recommendations, such as advising when to select low range or off-road ride suspension height when the system calculates that it is necessary. If desired, the system can be switched into manual mode.<sup>1</sup>

Alex Heslop, Range Rover Chief Program Engineer, explained: "By adding an automatic mode, even non-expert drivers will be able to benefit from the system's full capabilities, confident that the vehicle is configured in the best possible way for each moment of their journey – however tough the conditions."

To complement the Terrain Response® 2 system, the new Range Rover can also call upon a suite of all-terrain technologies to help maximize performance and safety, including Hill Descent Control (HDC),

Gradient Release Control (GRC), Hill Start Assist (HSA), Dynamic Stability Control (DSC), Electronic Traction Control (ETC), and Roll Stability Control (RSC). The operation of these braking and stability systems is enhanced by the latest Bosch 6-piston brake modulator, which delivers faster responses and smoother, quieter and more precise operation.<sup>1</sup>

### **Suspension architecture**

A key factor in the enhanced driving capability of the new Range Rover is new suspension architecture. Primarily constructed from aluminum components, the suspension is fully-independent, with a wide-spaced double-wishbone design at the front and an advanced multi-link layout at the rear. The new suspension system delivers extended wheel travel – with 260mm (10.2-inches) of movement at the front and 310mm (12.2-inches) at the rear, providing exceptional wheel articulation and composure to deal with the toughest conditions.

The new model's breadth of capability is also reflected in its strong structure with enhanced body geometry for all-terrain conditions, wading depth, which has improved by 200mm (7.8-inches) to 900mm (35.4-inches). The increased wading depth owes in part to an innovative air intake system, which draws air through ducting built into the hood structure.

As on previous Range Rover models, the suspension architecture is combined with four-wheel air springs to optimize the vehicle's versatility both on- and off-road. The air springs offer variable ride height, and are pneumatically cross-linked for maximum axle articulation. The air suspension hardware has been engineered to achieve superior performance, both in terms of ride quality and the ability to change swiftly between the different ride heights. The characteristic Range Rover supple ride quality has been improved through the fitment of new low-hysteresis front air springs, which are able to absorb small irregularities much more effectively. The springs use a thinner, suppler material, which is protected by a metal casing.

### **Dynamic Response and Adaptive Dynamics**

For the first time on the Range Rover, the Land Rover Dynamic Response active lean control system is available. By significantly reducing the degree of body lean during cornering, Dynamic Response enhances vehicle handling and occupant comfort. Fitted as standard to Supercharged V8 models, this new two-channel system can control the front and rear axles independently, allowing it to be tuned to deliver increased low-speed agility, along with enhanced control and stability at speed. The new system has also been designed to improve ride comfort and reduce 'head toss' by detecting and countering the body rock induced by uneven road surfaces. Dynamic Response also enhances off-road capability. If the system detects off-road conditions, the control module isolates the stabilizer bar and reduces the level of roll compensation, thus allowing greater wheel articulation and increasing the contact patch with the terrain.

Adaptive Dynamics, featuring electronically variable dampers, is standard on all new Range Rover vehicles, providing the optimum balance of ride and control by offering infinitely variable damper settings between soft and firm settings. Adaptive Dynamics monitors vehicle movements at least 500 times a



second, reacting to driver or road inputs virtually instantaneously to give greater comfort and control and minimize body roll. The system will sense off-road conditions, and set damping accordingly.

### **Full-time intelligent 4WD system**

Land Rover vehicles are renowned for their ability to drive on challenging low-grip surfaces. The latest Range Rover builds on that experience with a full-time intelligent 4WD system. The heart of the 4WD system is a two speed transfer case that provides permanent four-wheel-drive via a bevel-gear centre differential, with a 50/50 torque split, and a low-range option for difficult conditions off-road or when towing. The transfer case offers a fully synchronized 'shift on the move' system allowing the driver to change range at speeds up to 60km/h (37 mph) without having to stop the vehicle. High-range provides a direct drive with a 1:1 ratio, while low-range provides a ratio of 2.93:1, giving a low crawl speed for off-road driving or for towing heavy trailers.

Traction and dynamic stability are maintained through an electronically controlled multi-plate clutch that provides a centre differential lock and torque-biasing function. Taking information from a range of vehicle sensors, the control unit uses the multi-plate clutch to distribute torque between the wheels, working in parallel with the electronic traction control systems. To further optimize traction in extreme conditions, customers can also specify an Active Rear Locking Differential.

### **Electric Power-Assisted Steering with Park Assist**

The new Range Rover adopts electric power-assisted steering (EPAS), which delivers outstanding steering feel while also helping to reduce fuel consumption. This system also enables customers to benefit from the optional Park Assist feature, which helps to identify a suitable parallel parking space, and then automatically steers the vehicle into place, with the driver controlling the brake.

The variable ratio steering system provides a fast overall ratio, but which is slower just around the on-centre position. This configuration gives the vehicle an effortless quality, while ensuring the stability and relaxed character of a Range Rover when operating at highway speeds. By varying the level of power assistance, the steering is light and responsive when maneuvering at lower speeds, while being firmer for a more confident response at higher speeds.

Terrain Response® functionality is also improved, since the EPAS system is able to vary the steering feedback according to the different friction levels offered by any given road surface, from snow through to sand. Other specific features built into the control software to improve steering feel include:

- Damping that varies according to steering speed
- Pull/Drift (camber) Compensation, to avoid annoying steering corrections by mitigating the effect of road crown
- Soft Lock Stops, to provide a cushioned feeling to the driver and avoid an abrupt feeling as the steering meets the lock stops
- Active Return, improves self-centering of the steering, avoiding torque build-up as steering wheel angle increases
- Parking Torque Control, for ease of steering when parking

## **Powerful braking with Brembo calipers**

The new Range Rover is equipped with a powerful four wheel disc braking system featuring six-piston Brembo calipers on the front brakes for enhanced performance and reduced weight. The generous disc diameters of 380mm /365mm rear (14.96-inch front / 14.37-inch) provide substantial thermal capacity, capable of achieving outstanding stopping performance. Performance of the braking and stability systems is also enhanced by the latest Bosch 6-piston brake modulator, which delivers faster responses and smoother, quieter and more refined operation.

The Electronic Park Brake (EPB) has been designed to provide smooth and refined automatic disengagement when the vehicle moves off.

## **Intuitive controls with clear and elegant layout**

The controls and displays combine a stylish, uncluttered layout with added functionality. The simplified control layout uses 50 percent fewer switches than before to offer exceptional ease-of-use while also emphasizing the clean, elegant lines of the cabin.

The new Range Rover features two primary high-resolution display screens – a 312.4 mm (12.3-inch) display for the main instrument cluster, and an 8-inch touchscreen unit for infotainment and secondary functions. The display has been designed with fewer rows of information, improving usability with bigger buttons and greater separation. 'Secret until lit' hard keys on either side of the display provide short-cuts to the most commonly used screens, such as Home, Audio/Video, Nav and Phone. The screen graphics on both displays were designed to create the impression of 3D surfaces with subtle chrome detailing. Each display is able to adapt its content according to the driving situation, eliminating unnecessary details and presenting the most important information in a clear and simple form.

The intuitive and elegant approach is reflected in the other controls, such as the rotary Drive Select and Terrain Response 2 controls on the centre console, the simplified climate control system dials, and the five-way switches on the steering wheel.

## **Capability**

Ensuring the vehicle remains true to Range Rover heritage required developing a tremendously strong structure, achieving suitable body geometry and suspension capability for off-road agility, and integrating full towing functionality.

Engineering the new body structure began with the most extensive optimization process ever undertaken by Land Rover, with extensive use of advanced computer simulation to deliver outstanding strength, safety, off-road capability and durability, and minimum weight. The new Range Rover features enhanced body geometry for all-terrain conditions, and provides 17mm (0.67-inch) additional ground clearance to 303mm (11.9-inch) (measured at the off-road ride height), and improved approach and departure angles. The vehicle underfloor provides a smooth surface, with a smooth transition between suspension components, to reduce susceptibility to damage or interference.

The air suspension system also significantly enhances off-road capability, by introducing an automatic system that varies between two ride heights; +40mm (1.6-inches) and +75mm (2.95-inches) when the off-road setting is selected, rather than a single +55mm / 2.2-inches position of the outgoing model. The suspension provides 20mm (0.8-inches) increased maximum ground clearance at speeds below 50km/h (31 mph), while the +40mm (1.6-inches) intermediate setting allows off-road mode to be engaged at higher speeds (50 mph / 80km/h vs. 31 mph / 50km/h) than before. The suspension system is better able to detect deep wading conditions or situations when ride height adjustment is required to prevent grounding.

The new Range Rover offers a 3,500kg (7,716-lb) trailer towing capability. Key additional features to enhance the towing experience include the optional Surround Camera system with Tow Assist for easier hitching and reversing, and the Trailer Stability Assist system.

## **Testing**

While the initial engineering and optimization was conducted almost exclusively using computer simulation, vehicle performance and robustness was verified through extensive physical testing, using both driven and rig-based regimes. A fleet of development vehicles covered countless thousands of miles over 18 months of arduous tests in over 20 countries with extremes of climate and road surfaces.

Range Rover completed well over 20,000 physical tests across all components and systems. Prototypes were driven in challenging off-road conditions such as sand, mud and snow, and their durability tested in extreme exercises to prove out deep wading, underfloor vulnerability, winch recovery and towing at maximum gross vehicle weight. Further extreme strength tests include worst-case scenarios such as driving into curbs at speed, bridge jumps, ditch drops and sideways curb strikes.

Punishing longer test regimes provided the ultimate challenge for durability and reliability, including the month-long 'king of the sand' durability test in intense Middle East desert heat, a 5,000-mile flat-out endurance drive at the Nürburgring race track in Germany, and grueling off-road test cycles involving thousands of miles at challenging British proving grounds.

## **POWERTRAIN**

The new Range Rover delivers effortless performance and superb refinement with its line-up of torque-rich engines, both of which are now paired with a smooth and responsive eight-speed automatic transmission.

The 510 hp 5-litre V8 supercharged engine retains its place at the pinnacle of the Range Rover line-up. With huge reserves of power and torque, formidable performance is reflected in the 0-100 km/h time of 5.4 seconds (0.8 seconds faster than the outgoing model).<sup>2</sup> Fuel consumption, meanwhile, is cut by 9 percent. The engine is fitted with a twin vortex system (TVS) supercharger that offers superior thermodynamic efficiency and extremely refined noise levels. The engine features high-pressure direct injection with a centrally-mounted, multi-hole, spray-guided injection system. Efficiency is further

enhanced by an innovative cam torque actuated dual independent variable camshaft timing system (VCT). The engine features a new Bosch engine management system.

The Range Rover V8 engine is paired with the electronically controlled ZF 8HP70 8-speed automatic transmission, which has been tuned by Range Rover to combine silky-smooth shifting with exceptionally rapid response and higher fuel economy. With eight closely-spaced ratios, gear changes are almost imperceptible, with each shift completed in just 200 milliseconds – four times faster than the average human resting heartbeat. Standard steering wheel-mounted paddle-shifters enable the driver to shift manually when desired, or for greater vehicle control in certain off-road situations. The new transmission will execute multiple downshifts, maintaining a smooth transition between ratios. The transmission is tuned to select torque converter lock-up as early as possible to reduce slip and energy loss. The wider ratio spread compared to the previous six-speed, tall overdriven top gear and the fact that no more than two internal clutches are open at any one time all contribute to improved fuel economy.

Transmission Idle Control disengages 70 percent of the drive when the vehicle is stationary and the engine is idling in Drive, reducing consumption in urban conditions. In cold conditions, the transmission selects a lower gear to get the engine up to its efficient operating temperature as soon as possible. The hydraulic control system has been designed for increased efficiency, with improved pump design and gear control elements. Low viscosity transmission fluid maximizes transmission efficiency

## **SUSTAINABILITY**

From development and manufacturing, to customer use and end-of-life, the new Range Rover demonstrates the manufacturer's commitment to enhancing the sustainability of its products and operations. The all-aluminum aerospace-inspired vehicle structure of the new Range Rover enables the new vehicle to enhance both performance and efficiency.

The new Range Rover is produced in an all-new aluminum body shop at Land Rover's home in Solihull. The joints in the shell are riveted and bonded together using techniques originally developed in the aerospace industry and adapted for automotive use by Jaguar Land Rover. This construction process eliminates traditional energy-intensive construction methods, such as spot welding.

### **Sustainable by design, with a lifecycle approach**

The new Range Rover was designed with a lifecycle approach, aiming to minimize the environmental impact by considering the entire lifecycle of the vehicle in line with ISO 14040/14044: from development and manufacturing, through customer use, to end-of-life recycling and re-use.

The aluminum construction of the new Range Rover makes a major contribution to its reduced carbon footprint. Up to 75 percent of the aluminum material is sourced from recycled content, including closed loop recycling of waste metal from the manufacturing process, resulting in a significant saving of energy and CO<sub>2</sub> emissions (body panels made from recycled material use only 5 percent of the energy required for new aluminum). Further energy is saved during the manufacturing process, which does not require highly energy intensive processes, such as welding.

Recycled and renewable materials have been used wherever possible. High specification versions of the new Range Rover use up to 31.5kg (69 lbs) of recycled plastics, diverting over 8,820 tons of plastic from landfill during the carline's life. Natural and renewable materials, such as the luxurious leathers and veneers, represent about 44.5 kg (98 lbs) of each vehicle.

"Bridge of Weir" leather is used, which is produced using unique 'low carbon' manufacturing processes. The wood veneers are all sourced from sustainable forests.

### **SAFETY TECHNOLOGIES AND ADVANCED DRIVING ASSISTANCE SYSTEMS**

The new Range Rover has been engineered to meet or exceed the most stringent global safety standards. The crash structure was extensively optimized using computer simulation tools, which allowed engineers to conduct a significant number of 'virtual' crash tests long before physical prototypes were available. Designed for optimal crash performance, minimum intrusion into the passenger cell, and maximum occupant protection, the aluminum body structure includes key features such as the use of high strength AC300 aluminum within the crash structure and a composite reinforced B-pillar area to minimize intrusion in side impacts.

The occupant safety package includes a comprehensive system of air bags and restraint systems including driver and passenger airbags, side curtain and thorax airbags, and active front seat belts that are linked to the vehicle's emergency braking functions.

The front-end, bumpers, hood and cowl area were engineered to help minimize potential injuries to pedestrians.

Vehicle and safety technologies include advanced driver assistance features such as the latest available Adaptive Cruise Control system, along with a comprehensive range of active and passive safety technologies.

The enhanced radar based Adaptive Cruise Control (ACC) can maintain a pre-set time gap to the vehicle in front in slower moving or busy traffic, and the new Queue Assist features extends the ACC function to allow the vehicle to come to a stop when it reaches slow traffic. When the vehicle in front moves off, the Range Rover driver can resume ACC operation by briefly touching the accelerator. The vehicle then can then accelerate back to maintain the selected time gap to vehicles ahead, up to a selected maximum speed. Vehicles specified with ACC and Queue Assist also feature the Intelligent Emergency Braking (IEB) function described below.<sup>1</sup>

Available Blind Spot Monitoring uses side-mounted radar sensors to survey potential blind spots either side of the vehicle, and alerts the driver when vehicles are detected within this area. The system is optimized to work at lower speeds commonly encountered in urban conditions or on congested highways. Blind Spot Monitoring now is combined with Closing Vehicle Sensing, a new feature that extends the function of the system by scanning a zone much further behind the vehicle. The system can detect vehicles that are closing quickly from behind and may be coming into a blind spot. Drivers are alerted by a rapid flashing of the Blind Spot warning light in the corresponding side mirror.<sup>1</sup>

Another new function available is Reverse Traffic Detection, which uses radar in the rear of the vehicle to warn about approaching vehicles during reversing maneuvers, such as backing out of a driveway. The system is active when reverse gear is selected and can detect a vehicle approaching from either side, alerting the driver.<sup>1</sup>

Other driver assistance technologies that help to reduce stress behind the wheel include: Adjustable Speed Limiter Device for the driver to set a personal maximum speed, a Surround Camera System incorporating T-Junction view, trailer reverse park guidance and trailer hitch guidance, and Headlamps with Automatic High Beam Assist and Adaptive Xenon lighting.<sup>1</sup>

### **Command Driving Position enhances confidence and control**

Like its predecessors, the new Range Rover places the driver in an elevated, upright seating position that offers a reassuring view of the vehicle and its surroundings.

The sense of control offered by the elevated driving position is enhanced by the vehicle's outboard seating location with clear visibility to the side, and outstanding forward visibility over the characteristic low profile of the hood. Throughout the development process, meticulous optimization of the vehicle design and interior package – much of it using the sophisticated 3D CAVE virtual simulator – ensured that the new model retained its exceptional all-round visibility, while overall roominess increased significantly. Upward vision for the front row occupants was improved, enhancing visibility in undulating terrain and improving the view of overhead signs and traffic lights.

Like all Range Rover models, the new version had headroom targets that included provision for off-road head movements. In the new model, more generous headroom enhances clearance during off-road excursions.

### **Active safety technologies**

The new Range Rover comes equipped with a comprehensive suite of active safety technologies, designed to enhance braking, stability and traction.

For the first time, the Range Rover is available with Intelligent Emergency Braking. Included on vehicles fitted with Adaptive Cruise Control, this new feature can help drivers reduce the chance of a collision if the traffic ahead slows quickly or another vehicle suddenly moves into their lane.

The Intelligent Emergency Braking (IEB) feature incorporates Advanced Emergency Brake Assist (AEBA). When in operation, the system uses forward-looking radar to detect vehicles ahead moving in the same direction, and in the event of a possible collision, the driver is alerted by a visual and audible warning signal. If the risk of collision increases after the warning, AEBA prepares the brake system for rapid braking and the brakes are applied gently. If the driver applies the brake pedal quickly, then braking is implemented with full brake function. In the event that a collision is judged to be unavoidable, a driver warning will be given and IEB will automatically apply an emergency braking pressure level to help reduce the speed of impact.<sup>1</sup>

The full suite of active safety features on the new Range Rover includes: Dynamic Stability Control (DSC), Roll Stability Control (RSC), Electronic Traction Control (ETC), Trailer Stability Assist (TSA), Hill Descent Control (HDC) and Gradient Release Control (GRC), Hill Start Assist (HSA), Engine Drag torque Control (EDC), Anti-lock braking system (ABS), Electronic brake force distribution (EBD), Emergency brake lights (EBL), Emergency brake assist (EBA), and Corner Brake Control (CBC).<sup>1</sup>

## **REFINEMENT AND COMFORT**

The cabin of the new model is significantly more refined. Passengers, particularly those in the rear, will notice the increased interior space, quieter ride and new premium features. Unwanted sounds and traces of harshness have been reduced through the use of advanced computer simulations during the engineering phase. This was followed by extensive development with test cells using sophisticated analysis tools including acoustic cameras.

Overall powertrain noise levels have been further reduced on the new model, assuring a refined sound quality across the full operating range. A certain amount of tuned powertrain and exhaust sound is allowed under hard acceleration to reflect the vehicles' powerful performance. The engines remain hushed at cruising speeds.

A special acoustic lamination applied to the windshield and all side door glass helps to further reduce powertrain noise and wind noise. Range Rover applied computational fluid dynamics and exhaustive wind tunnel tests to minimize wind noise. Key areas, such as the shape of the A-pillar and door mirrors, were refined early in the development process. Objectively, wind noise is reduced 7 percent compared to the outgoing model.

The high-strength aluminum structure incorporates extremely stiff chassis attachment points, to further minimize the transmission of noise and vibrations, while the use of stiff alloy suspension components, along with specially developed bushings help to reduce road noise.

Other innovative solutions to enhance refinement include the use of sound-absorbing foam ducts for the HVAC system, in place of hard plastic, and the mounting of the air suspension compressor on the main vehicle battery to damp unwanted vibrations.

All operating sounds within the new Range Rover, from door-closing sounds to the noises made by switches and motors, have been rigorously analyzed and refined to create a premium sound quality.

Enhancing rear seat luxury was a major priority in the new Range Rover. The new model provides more space, greater comfort. A 42mm (1.65-in) longer wheelbase enables increased rear-seat legroom, without compromise for the front row occupants. Rear legroom has been increased by 119mm (4.7-inches), giving nearly more than 1 meter (40-inches) of stretching room. A slightly lower rear seating position, along with a larger door opening, has significantly improved ingress and egress.

Enhancements to the air suspension system give further benefits, with the 'Access' ride height mode now lowering the vehicle by 50mm (1.96-inches), a 10mm (0.4-inches) increase over the previous model. Air system performance now enables much quicker height changes.

Rear seat comfort has also been enhanced by the availability of rear seats with either manual or power recline, together with an improved second-row climate control system with up to eight vents providing air flow to occupants.

The ambience is also enhanced by the central armrest with cooler box option, four-zone climate control with individual temperature controls, and the sophisticated mood lighting along the console.

### **Premium features and exclusive audio for the ultimate luxury experience**

A generous selection of new features to enhance comfort and convenience, including exclusive new audio technology, raise the Range Rover luxury experience a higher level. A new climate control system offers exceptional performance, and a new sliding panoramic roof provides the cabin with an open, airy feeling.

The new Range Rover features new audio systems developed with Meridian™, a British specialist in high end audio technologies and digital sound processing. Two levels of branded Meridian™ system are available. The systems' amplifiers incorporate the latest Meridian™ digital processing technology to ensure perfectly optimized sound quality. Meridian™ high-efficiency speakers deliver exceptional clarity and dynamics.

Range Rover and Meridian™ audio specialists also applied the Audyssey MultEQ XT audio tuning system, which digitally corrects imperfections created by the cabin environment to deliver accurate, enveloping, and distortion-free<sup>i</sup> sound for all seating positions.

### **Travelling in the ideal climate**

A new climate control system helps ensure the ideal temperature inside the Range Rover. Engineers developed the new system using Computational Fluid Dynamics simulation tools and by conducting tests in punishing real-world conditions at temperatures from -30 to 50 to deg. C (-22 to 122 degrees F). Two versions are available: A three-zone system features separate temperature controls for driver, front passenger, and rear seats. A four-zone system has an additional climate control unit in the rear compartment, and separate controls for driver, front passenger, and each side of the rear cabin.

The new control system ensures that the climate control responds quickly and accurately, with discharge air temperature sensors on all outlets, and dual solar sensors in both front and rear compartments. With its independent heating and cooling capability in the rear compartment, the four-zone system offers greater rear seat comfort, with multiple outlets at face, foot and hip level.

The full-size sliding panoramic glass roof is the largest ever fitted to a Range Rover. The new roof has been engineered to maximize its length and width – with no unsightly supporting structure – to deliver an uninterrupted vista and enhanced headroom.



The roof glass integrates a dark tint for privacy, as well as solar protection to help maintain a comfortable interior temperature. When additional shade or privacy is required, an electric fabric sunblind with a solar reflective coating can be extended across the glass.

### **Convenience Features and In Car Technology Summary**

- Premium Entertainment: DVD playback via 8-inch front touch screen; full Rear Seat Entertainment (RSE) package, featuring twin 8-inch video screens and a dedicated remote control; RSE systems are supplied with 'White Fire' infra-red wireless digital headphones offering CD quality sound
- Available Customer Configurable LED Ambient Mood Lighting - variable colours
- Powered split tailgate: The characteristic Range Rover split tailgate is now fully power operated; power upper and lower gates offer flexible operation using the remote control key fob, buttons on the tailgate, or from the driver's seat
- Smart Key system: enables keyless entry and start
- Optional Soft close doors with power latching
- Power operated child locks: standard on rear doors
- Coolers: Available cooler compartment in the front centre console armrest
- Heated windshield/seats/steering wheel: For cold climates, the new model offers a heated front windshield, plus individually adjustable heated front seats and steering wheel
- Powered split upper and lower tailgates
- High-end audio: Meridian™ surround sound music systems with audiophile-quality sound
- High-resolution displays: full digital instrument cluster and the central 8-inch touch-screen
- Voice control and connectivity: a seamless connectivity package for mobile devices
- All-new climate control systems with an available four-zone system
- Adaptive Dynamics featuring continuously variable damping
- Two-channel Dynamic Response active lean control
- Electric Power Assisted Steering, which enables Park Assist automated technology to help drivers parallel park their car in tight urban parking spots
- Optional Adaptive Cruise Control – Radar based system with new Queue Assist feature which allows the system to continue functioning at low speeds and down to a complete stop
- Intelligent Emergency Braking (including Advanced Emergency Brake Assist) available– to help reduce the risk of collision if the traffic ahead slows quickly or another vehicle suddenly moves into their lane<sup>1</sup>
- Available Blind Spot Monitoring – with new Closing Vehicle Sensing feature to detect vehicles which are closing quickly from the rear in an adjacent lane<sup>1</sup>
- Reverse Traffic Detection option– to warn drivers of potential cross-traffic when reversing<sup>1</sup>
- Adjustable Speed Limiter Device – enables the driver to set their own personal maximum speed
- Available Surround Camera System – with T Junction view, Trailer reverse park guidance, and Trailer hitch guidance.
- Hands-free mobile phone via Bluetooth, enabling the phone to be controlled via the 8-inch touchscreen or steering wheel controls<sup>3</sup>
- Bluetooth audio streaming, to play music stored on a phone, or other portable Bluetooth device, via the car's audio system
- Voice control, with intuitive 'say what you see' display prompts<sup>3</sup>

- USB connectivity for iPods®/MP3 players or memory sticks

## **RANGE ROVER HERITAGE**

The new model is the fourth generation of the iconic Range Rover line. The Range Rover was a milestone in the evolution of the sport-utility vehicle when it launched in 1970. The popularity of the Range Rover concept grew around the world, and today it remains the premier choice for the luxury SUV customer.

The original Range Rover, now known as the Range Rover Classic, went on sale in Europe in 1970 and continued in production for over 25 years. It debuted in the North American market for 1987. The second-generation vehicle, known by the code "P38a", went on sale for 1995. It was replaced by the third generation, the 2003 Range Rover, which has enjoyed higher annual sales than any previous models.

The inspiration for the original Range Rover came from the Rover car company's engineering chief for new vehicle projects, Charles Spencer 'Spen' King, who worked mostly on Rover cars, not on Land Rover. At the time, Land Rover was the Rover Car Company's 4x4 division. Work on the first prototype Range Rover began in 1966.

"The idea was to combine the comfort and on-road ability of a Rover saloon with the off-road ability of a Land Rover," said King.

"It was going to be a premium leisure vehicle, but not really a luxury vehicle," said former project engineer Geof Miller. "It was also intended to be technically adventurous. Spen was convinced the vehicle must have car-like coil springs front and rear for on-road ride comfort, and no other 4x4 offered them. It needed very long travel suspension for off-road suppleness."

Other technical novelties would include an aluminum body (like the Land Rover), an all-aluminum engine and disc brakes all round.

The Range Rover name was coined by designer Tony Poole, after other model names – among them Panther and Leopard – were rejected.

### **Simple and iconic shape**

A central element of the model's appeal has been its instantly recognizable design. "Like the current version, the original Range Rover is such a simple and iconic shape," said Land Rover Design Director and Chief Creative Officer Gerry McGovern.

The concept and basic shape – flat sides, thin roof pillars, short overhangs, all dimensions including wheelbase, upright nose and tail – was determined by engineers, principally King and chassis engineer Gordon Bashford. The initial press kit didn't even talk about design. Certain iconic details, seen on all generations of the Range Rover, provided functionality. The hood design improves the driver's ability to

see the corners of the vehicle, especially useful in congested city driving, in parking, and when driving off-road. The 'floating' roof is partly a result of comparatively thin pillars, to improve visibility. The relatively flat sides allowed occupants to sit as far out as possible, improving side visibility and improving the driver's ability to judge vehicle width, important for maneuverability on- and off-road.

### **Design evolution**

The Range Rover's design has remained evolutionary. The second-generation vehicle, the P38a, was a 'clean sheet' design, but with key qualities preserved, including the command driving position, the floating roof, the deep glass area and low waistline, clamshell hood (including the trademark 'castellation' on the leading edges), distinctive rear roof pillar, two-piece tailgate, the straight feature lines (no wedge or step inside styling) and the close wheel cuts (to improve stance).

All these classic Range Rover design cues continued with the third-generation 2003 model launched in the 2002 calendar year. Although subsequently upgraded, the essential shape has stayed the same, and remains one of the most iconic designs in the luxury 4x4 sector. The interior saw a big improvement over its predecessor. The design team took inspiration from products as diverse as audio equipment, yachts, first-class airline seating, fine furniture and jewelry. This was combined with the classic 'wood and leather' Range Rover experience. The result brought new levels of luxury to the Range Rover, and to the 4x4 market.

Through its development, the Range Rover also pioneered a wide range of key technologies within the SUV market, and was the first 4x4 to include features like ABS anti-lock brakes, electronic traction control, electronic air suspension, aluminum bodywork, and advanced TFT 'virtual' instruments.

### **Global adventures**

Spectacular global adventures have been a regular part of the Range Rover heritage, and the vehicle followed in the wheel tracks of other Land Rover models in crossing deserts, climbing mountains, wading rivers and traversing swamps. That luxury touch in no way diminished the vehicle's adventurous spirit.

Before it went on sale, the first Range Rover completed an arduous crossing of the Sahara driven by project engineers and technicians. Subsequent journeys took the vehicle across impenetrable swampland between Panama and Colombia called the Darien Gap; on the world's first circumpolar journey around the globe; along the Great Divide, following the peaks of the Rockies; through the challenges of the Paris-Dakar and London-Sydney Marathon rallies; and on the arduous Camel Trophy events.

**Range Rover timeline** - A brief history of the iconic Range Rover line:

- 1966** Work began on the first Range Rover prototype
- 1970** The original two-door Range Rover – now known as the Classic – goes on sale in Europe
- 1972** A Range Rover is the first vehicle to cross the Darien Gap on a British Army Trans-America expedition

- 1974** Range Rover completes west to east Sahara desert expedition – 7,500 miles in 100 days
- 1977** A modified Range Rover wins the 4x4 class in the London-Sydney Marathon, a grueling 18,750 miles (30,000 km) event and the longest ever speed-based car rally
- 1979** A modified Range Rover wins the first Paris-Dakar rally (a Range Rover won again in 1981)
- 1981** First production four-door Range Rover appears
- 1987** Range Rover launched in North America
- 1989** Range Rover is the world's first 4x4 to be fitted with ABS anti-lock brakes
- 1992** Range Rover Classic is the world's first 4x4 to be fitted with electronic traction control (ETC)
- 1992** Long-wheelbase LSE (known as County LWB in North America) launched
- 1992** Automatic electronic air suspension introduced, a world first for a 4x4
- 1994** Second-generation (Code: P38a) Range Rover goes on sale
- 1996** First-generation Range Rover Classic bows out after total production of 317,615 units
- 2002** All-new 2003 Range Rover (Code: L322) launched
- 2002** Half-millionth Range Rover produced at the Solihull plant
- 2006** Terrain Response® introduced
- 2009** Range Rover features all-new 5-litre V8 engines and technology updates
- 2010** Range Rover celebrates its 40<sup>th</sup> anniversary.
- 2012** All-new 2013 Range Rover (Code: L405) revealed

For more information, please visit: <http://allnewrangerover.landrover.com/us/en>

**Note to editors:** Later in 2013, certain European and Asian markets will have a diesel hybrid powertrain. This diesel powertrain will be publicized for specific markets, but is not certified for sale in North America.

# # #

#### **About Land Rover**

*Land Rover, the British maker of Land Rover and Range Rover sport utility vehicles, is renowned for providing its clientele with some of the most luxurious and capable vehicles in the world. Every Land Rover product is equally at home both on and off road, and in any setting; be it in the heart of the city, or traversing the countryside. Today's Land Rover lineup includes the legendary Defender, LR2 (Freelander 2), LR4 (Discovery 4), Range Rover Sport, Range Rover and Range Rover Evoque. Land Rover designs, engineers, and manufactures their vehicles in the United Kingdom. Land Rover is fully engaged with sustainability initiatives and social concerns with continuous involvement in environmental and community programs. For more information visit the official Land Rover website at <http://www.landroverusa.com>.*

#### **About Jaguar Land Rover Canada ULC**

*Jaguar Land Rover is a business built around two great British car brands that are designed, engineered and manufactured in the United Kingdom. Jaguar Cars Limited, founded in 1922, is one of the world's premier manufacturers of luxury sedans and sports cars. Since 1948, Land Rover has been manufacturing authentic 4x4s that define "breadth of capability" in their segments.*

*Jaguar manufactures all their cars exclusively in the United Kingdom, at the Castle Bromwich manufacturing plant in the British Midlands. Land Rover and Range Rover models are built in the United Kingdom at the Solihull and Halewood plants. Land Rover exports to 169 countries and Jaguar exports to 63 countries, with global sales for both brands exceeding 240,000 vehicles annually. The Jaguar Land Rover business employs 16,000 people in United Kingdom, including 3,500 engineers at two product development centres.*

*Headquartered in Mississauga in Canada, Jaguar Land Rover Canada ULC is represented by 25 retail outlets*

## The All-New 2013 Range Rover

### Technical Data

(All numbers are preliminary manufacturer estimates)

	5-litre Supercharged V8
Height mm (in)	1835 (72.3)
Width excl. Mirrors / Mirrors Folded mm (in)	1983 (78.1) / 2073 (81.6)
Length mm (in)	4999 (196.8)
Wheelbase mm (in)	2922 (115)
Track – front / rear at ground level mm (in)	1690 (66.5) / 1683 (66.3)
Approach Angle deg	26.0 (standard height) / 34.7 (off-road height)
Departure Angle deg	24.6 (standard height) / 29.6 (off-road height)
Ramp Breakover Angle	20.1 (standard height) / 28.3 (off-road height)
Wading depth mm (in)	900 (35.4)
Turning Circle m (ft)	12.3 (40.4)
Drag Coefficient from Cd	0.36
Minimum weight (Preliminary) Kg (lbs)	2330 (5137)
Loadspace Volume (cu.ft) • Maximum behind row 2 • Maximum behind row 1 • Under luggage cover	32.1 71.7 19.4
Front Suspension	SLA suspension with twin lower links with air springs/ Adaptive Damping/ Dynamic Response
Rear Suspension	Integral link suspension with air springs/ Adaptive Damping/ Dynamic Response
Brakes	380mm (14.96") ventilated disc front / 365mm (14.37") ventilated disc rear
Steering	Electric Power Assisted Steering (EPAS) rack and pinion

Engine Type	Longitudinal, V8, 32 valves, Quad cam Dual Independent Variable Cam Timing
Four Wheel Drive System	Permanent 4WD via centre differential and optional rear differential
Displacement cc (cu.in)	4999.7 (305.1)
Bore / Stroke mm (in)	92.5 / 93.0 (3.64 / 3.66)
Compression Ratio :1	9.5
Max Power (HP)	510
Max Power rpm	6000-6500
Max Torque (lb ft)	461
Max Torque rpm	2500-5500
Transmission	ZF 8HP70 8-Speed auto
Fuel consumption	TBD
Fuel Tank Capacity litres	105 (27.7 US Gallons)
0-60mph	5.1
0-100km/h	5.4
Top Speed ( mph)	140

1. These features are not a substitute for driving safely with due care and attention and will not function under all circumstances, speeds, weather and road conditions, etc. Driver should not assume that these features will correct errors of judgment in driving

2. Always obey local speed limits

3. Driving while distracted can result in loss of vehicle control. Do not operate, adjust or view the navigation or multimedia systems

4. Power ratings are at a practically audio distortion free level of 0.2% THD + N (Total Harmonic Distortion plus Noise)

5. Price shown is MSRP. Includes destination. Excludes, tax, title, license, retailer fees and optional equipment. Retailer price, terms and vehicles availability may vary. See your local authorized Land Rover retailer for details