

THE LEXUS NX

LEXUS PRESENTS ITS FIRST COMPACT SUV

The NX marks Lexus's entry into the compact premium SUV market, an all-new model that has been developed with the guiding concept of capturing qualities associated with high-quality sports watches, bikes and fashion – generally “urban sports gear” - with an edgy design that will help it connect with a typically urban, active customer base.

“The NX has been developed as a premium SUV, delivering high performance, and packaged with an alluring exterior and interior design that generates desire. On the practical side, it has been designed to complement day-to-day life while supporting customers' active lifestyles,” says Takeaki Kato, NX Chief Engineer.

The compact SUV market is one of the fastest growing in the automotive industry and is highly competitive. Globally demand for this type of vehicle has grown almost seven-fold in the last seven years and is expected to top one million sales a year in 2015.

Lexus pioneered the premium SUV segment with the original RX in 1998 and has since built an enviable reputation for setting benchmarks for quality, design flair and advanced technology in the luxury SUV/4x4 market.

DESIGN AND PACKAGING

The NX's styling is visibly influenced by the LF-NX concept cars Lexus presented at the Frankfurt and Tokyo motor shows in 2013, and is the latest and most progressive expression yet of the company's L-finesse design language.

On the outside its distinctive and individual spindle grille treatment and low, cab-forward silhouette create an eye-catching look with the kind of road presence to draw in younger, style-conscious customers.

The sharp styling doesn't compromise the interior packaging: the NX is highly practical when it comes to cabin and luggage space.

CUSTOMER-FOCUSED INNOVATION

Lexus's history of innovation in the SUV market carries through into the new NX, which benefits (according to model grade) from an array of advanced, user-friendly technologies.

These include a wireless charging tray for mobile phones and other portable devices; the first application of a new Lexus Remote Touch Interface with a touch pad control; a 360-degree Panoramic View Monitor that gives the driver a complete all-round view from the car; an improved multi-information display that includes data from a Lexus-first G-sensor; and a 6.2-inch head-up display.

ENJOYABLE DRIVING DYNAMICS, EFFICIENT POWERTRAINS

The NX makes extensive use of advanced electronics and chassis engineering to produce a ride and handling package that is dynamic and enjoyable to drive.

NX 300h

The core Lexus qualities of higher refinement and progressive luxury are nowhere more evident than in the NX 300h's sophisticated full hybrid powertrain, technology that Lexus has successfully pioneered in a market segment traditionally dominated by diesels, first with the RX 400h in 2005, then with the RX 450h in 2009. Now it continues that theme with the all-new NX 300h.

The highly efficient system, combining a 2.5-litre Atkinson cycle petrol engine, electric motor and E-CVT automatic transmission, emits from 116g/km of CO₂ (front-wheel drive NX 300h S model) and has a maximum output of 195bhp/145kW.

The F Sport version of the NX 300h not only makes an even stronger visual statement, with a number of exclusive styling elements inside and out, it also offers sharper driving dynamics thanks to the use of performance dampers.

NX 200t

The NX 200t, offered in the UK exclusively with all-wheel drive, has been designed to combine a sporting driving experience with ride comfort that is typically Lexus and high fuel efficiency.

It makes use of its 235bhp engine, advanced electronics, chassis dynamics and performance dampers to produce a highly engaging ride and handling package that is spirited, agile and dynamic, yet still returns average fuel consumption of 35.8mpg.

COMPREHENSIVE SAFETY PACKAGE

Lexus has redefined safety and driver assistance standards in the SUV/4x4 market with its development of advanced active, passive and pre-emptive technologies.

The NX is available with a comprehensive suite of sophisticated safety systems, including Pre-Crash Safety, All-speed Adaptive Cruise Control, Lane Keep Assist, Blind Spot Monitor, Automatic High Beam and Rear Cross Traffic Alert.

FAST FACTS ABOUT THE NX

- Lexus's first turbo petrol engine: a 2.0-litre, four-cylinder unit with a new six-speed automatic transmission, delivering both spirited driving and fuel efficiency.
- Doorhandle design: streamlined design with no visible key hole – a Lexus first for a pull-handle mechanism.
- Wireless charging tray: compatible smartphones and other devices can be recharged with no need for a cable link.
- 360-degree Panoramic View Monitor: this gives the driver a view of the NX 300h as if looking down from above, so the area all around the car can be checked before driving off.
- Remote Touch Interface with touch pad: the new Remote Touch Interface design gives even easier access to ancillary controls, with minimum driver distraction.
- Mark Levinson Premium Sound System with Clari-Fi™: a world-first in the automotive sector, this system analyses and improves the audio quality of all types of compressed, digitalised music sources.
- Adaptive Variable Suspension: the new-generation, linear-solenoid-type AVS provides a wider range of adjustment levels, increased from nine to 30.
- Advanced Pre-Crash Safety system: combined with All-speed Adaptive Cruise Control, this detects a possible collision between the NX 300h and an obstacle ahead. If it determines that a collision is imminent, it activates the Pre-Crash Brake to avoid an impact, or mitigate its severity. Both are fitted as standard on all UK versions of the NX 300h.

DESIGN AND PACKAGING

- Muscular, edgy exterior design
- Powerful but luxurious interior

- Driver-focused cockpit with ergonomically structured operation and display zones
- Ample interior space, combining SUV functionality with Lexus luxury and comfort

The design of the NX was substantially influenced by Lexus's LF-NX concept vehicles, both the hybrid presented at the Frankfurt motor show 2013 and the turbo model seen at that year's Tokyo motor show.

Exterior

Chief exterior designer Nobuyuki Tomatsu designed the NX to project an agile character that's not usually associated with an SUV and to express both functionality and performance.

The NX combines a low roofline with a strong, cab-forward silhouette. Powerfully flared front and rear wings are fused to a diamond-shaped body, with defining lines generated from the spindle grille. It has the most distinctive "face" in the current Lexus line-up, its prominent spindle grille flanked by LED headlamps and daytime running lights.

The sleek side profile is accentuated by a roofline which falls towards the back of the vehicle. The flared wheel arches, housing 17 or 18-inch wheels, give the car a crouching, muscular stance.

The doorhandle mechanism has a concealed key barrel and integrated lighting. Together with an aerodynamic door mirror, this design detailing enhances the car's smooth, flowing lines.

Aerodynamics

The NX achieves an ideal balance of aerodynamics and design, but its compact shape made the aerodynamic development process particularly challenging. Fitting a rear spoiler was essential to create a smooth airflow away from the back of the vehicle; the results from extensive wind tunnel testing led to the trailing edge of the fin being given a slightly upturned lip. This detail not only gives the NX a striking design accent, it also secures a Cd 0.33 (coefficient of drag) value.

The front and rear spats, rear floor cover and engine undercover have all been developed for the NX. The shape and composition of the engine undercover provide both heat resistance and better aerodynamics.

Lights and lamps

Lexus's first low energy consumption LED lights play a central role in defining the NX's design. At the top of the range, the NX 300h Premier has 90 LEDs in total, lights that illuminate faster and use less energy.

Each headlamp cluster has up to six high-brightness LEDs, including three L-shape low beam lamps. There are 23 LEDs in the daytime running lights and another 16 in each turn indicator. Thick inner lenses give the units a crystal-like shine.

The NX (Luxury, F Sport and Premier grades) also features adaptive low-speed cornering LED fog lights. When the turn indicators are operated, two LED lamps automatically adjust to give better illumination of the bend or junction ahead.

Doorhandle design

The new doorhandle design has no visible keyhole. Instead, a structure has been devised that allows the key to be inserted behind the pull handle, should it be needed.

A single LED is used to create a welcoming silhouette along the top of the handle and a puddle light below. True to the Lexus principle of seamless hospitality, the LED automatically lights up as you approach the car, while the new Remote Touch Interface is simultaneously illuminated inside the cabin.

Door mirrors

The new-design door mirrors are attached directly to the door to give a wider field of vision, optimise rear visibility and reduce wind noise. Their metal trim accentuates a design produced to reduce sunlight reflection and eliminate dazzle. Airflow between the mirror and car – a source of wind noise – has been minimised, and the use of a small, fixed quarterlight improves the driver's sideward view in front of the mirror.

New colours

The NX introduces a new exterior colour, Sonic White, in addition to Sonic Titanium (originally introduced on the IS saloon).

The technology used for the Sonic shades separates the paint film into two layers, one cosmetic, the other functional. After drying, the cosmetic layer is condensed to one third of its previous thickness, compacting its mica particles to give a deep reflective quality and shading. The particles are transparent, but luminous, creating strong reflections and shadows. Sonic White is brighter still than the brightest conventional white finish, and Sonic

Titanium gives a metal-like shine.

Exclusive wheel designs

Lexus has created a new range of lightweight cast alloy wheels for the NX, featuring a variety of finishes.

They include a 10-spoke, 17-inch design for the NX 300h S and three further 18-inch designs, one of which has a three-dimensional centre element and a U-shaped graphic on each of its five axes; the other projecting a strong visual with highly luminous, machined, Y-shaped spokes.

The NX F Sport models have a bespoke 18-inch wheel for their 225/60R18 tyres, with a combination black and machined finish.

Interior

The main thrust of chief interior designer Tetsuo Miki's vision was to combine the structural beauty of a high-performance machine with materials and textures that are both luxurious and functional.

The cockpit area is designed to help keep the driver alert and comfortable over long periods at the wheel, supported by HMI technology that minimises distraction by making the switches and controls fast and simple to use.

The centre console has a prominent silver frame that's embedded in the instrument panel and flanked by contrasting soft and supportive leather kneepads for the driver and front seat passenger. The Premier grade model features wood inserts for a touch of natural luxury, while carbon fibre-look trims are used in the F Sport.

Maximising interior space

The NX provides ample room for everyone on board, with best-in-segment space in critical areas. The front-to-rear couple distance is a class-leading 962mm and the high roofline gives exceptional head clearance. The rear knee room is even greater than in some larger SUV models.

Luggage space is generous and practical. Maximum loadspace width is 1,347mm, wide enough for golf bags to be stowed sideways rather than set across the diagonal. The load capacity measured according to VDA criteria is 475 litres in the hybrid, 500 litres in the NX

200t. The NX is the only model in its market segment to be provided with a space-saver spare wheel as standard – a feature that is either an extra-cost option or not available at all on competitor vehicles.

True to its status as a practical SUV, the NX comes with a wide variety of storage points around the cabin, including glove and console boxes, a console tray, utility box, sunglasses holder, cup holders and door pockets that can take half-litre bottles.

Meters and switches

The faces of the analogue clock, speedometer, tachometer and hybrid system indicator have a matching milled-effect finish, creating a unified, real-metal look.

The hybrid system indicator shows power output and regeneration in real time, with the dial switching automatically to a tachometer when the Sport drive mode is selected.

The Eco Driving Indicator supports environmentally efficient driving, by showing the range of acceleration for Eco driving and the status of acceleration in real time.

The 4.2-inch TFT LCD full-colour multi-information display is centrally positioned in the instrument cluster, with ambient illumination linked to the Drive Mode Select switch, changing colour for each mode. Using the Multimedia Linkage function, the display can also show phone and audio information.

In a first for a Lexus, the NX has electrostatic touch switches in the headlining to operate the interior dome light and map lights.

A welcoming light sequence is all part of the attention to detail in the customer appeal package. As explained above, when you approach the NX 300h carrying the key, the doorhandles are automatically illuminated, along with the Remote Touch Interface inside the car.

The footwell lighting centres on the occupant's seating position and, to give the best possible night-time visibility, the rear dome lamp is fitted with LEDs.

Materials

The interior displays the high level of attention to detail that characterises every Lexus. For example, the interior surface of the bottle holder in the centre console is finished in a high-

friction material that lets the driver open a twist-cap bottle one-handed.

ON-BOARD TECHNOLOGY

- Wireless charging tray for cable-free phone charging
- 360-degree Panoramic View Monitor
- 6.2-inch head-up display
- Remote Touch Interface with touch pad and multi-information display
- Mark Levinson Surround Sound system with auto industry-first use of ClariFi™

From phone charging to capturing an all-round view of your surroundings, the Lexus NX has new technology features that will make life on board easier, better informed and more enjoyable.

Going beyond the technical sophistication of its full hybrid powertrain and advanced safety and handling systems, Lexus's first compact SUV is available with a raft of novel and genuinely useful features. These include a handy wireless charging tray for mobile phones and other portable devices; the first application of a new Lexus Remote Touch Interface with a touch pad control; a 360-degree Panoramic View Monitor; and a Lexus-first G-sensor display.

The top of the range Mark Levinson Premium Surround Sound system benefits from new ClariFi™ technology that improves sound reproduction from compressed digital files.

Wireless charging tray

NX owners can recharge their smartphones and other compatible items (conforming to the international qi protocol) simply by placing them in a dedicated charging tray located handily between the front seats, with no need for a cable connection. The tray is part of the standard specification for F Sport and Premier models and is available as part of the Convenience Pack option for the NX 300h Luxury.

Panoramic View Monitor

The NX 300h Premier is equipped with Lexus's first 360-degree Panoramic View Monitor. This gives drivers greater reassurance, especially when moving in confined spaces, on or off-road, at speeds up to 12mph (20km/h).

A dedicated ECU mounted behind the C-pillar constantly monitors input from four interconnected cameras located on the door mirrors, front grille and rear trim. It processes the

images and relays them to the audio and navigation display monitor in a range of seven sequences. The driver can even view the NX as if looking down from above and accurately check its surroundings before driving off.

The monitor lets the driver see obstacles that would remain concealed in blind spots when using conventional front and rear-view cameras. It uses full-screen imaging, without the “letterbox” effect created by an analogue camera format.

The Panoramic View Monitor works in conjunction with the parking assist system and the Rear Cross Traffic Alert, which detects obstacles coming from either side in the driver’s blind spot when reversing out of a parking space.

Head-up display

The 6.2-inch head-up display, featured on the NX 300h Premier, projects a range of information on to the bottom part of the windscreen, including vehicle speed, engine rpm, navigation guidance and audio settings.

Remote Touch Interface touch pad

Lexus has revised and improved its Remote Touch Interface control, introducing a new touch pad on the centre console.

It’s designed to make it easier to locate the on-screen icons and is fitted with a palm rest for comfort. It provides fast, intuitive, on-the-move access to ancillary controls for features such as the climate control, audio and navigation, with minimum driver distraction. It’s also designed and positioned so that it can easily be used by the front seat passenger.

The system is provided with the optional Lexus Premium Navigation (a standard feature on the Premier grade model).

Audio systems

The NX’s highly rigid bodyshell provides an ideal platform for the range of audio systems on offer: eight or 10-speaker Pioneer Premium Sound systems and a 14-speaker Mark Levinson Surround Sound system (standard on the Premier grade model).

The pre-programmed sound equalising in the NX differs from that in other Lexus models in that it takes into account the cabin space and lay-out. Both the Pioneer and Mark Levinson systems have been purpose-built for the new NX, and address the growing popularity of

compressed sound as a music source and enhancing its quality.

The Pioneer system uses a new Digital Signal Processor to restore high notes lost through compression. A full digital Class D amplifier powers 16cm speakers in the front doors, combined with 6.5cm tweeters in the instrument panel.

The Mark Levinson Premium Surround System uses patented high-efficiency technology which more than doubles sound output with the same level of energy usage. It uses a 12-channel Class D amplifier and new Unity technology that places 9cm speakers at each end of the instrument panel. Total system output is 125 watts per channel and 835 watts overall, with distortion limited to less than 0.1 per cent.

Clari-fi™, appearing for its first time in the automotive market, is a feature of the Mark Levinson Premium Surround System. It analyses and improves the audio quality of all types of compressed, digitalised music sources.

DRIVING DYNAMICS

- High body rigidity and suspension characteristics deliver stability, agility, responsive handling and ride comfort
- Drive Mode Select lets the driver adjust vehicle behaviour to suit road conditions and driving style
- Adaptive Variable Suspension combines ride comfort and greater stability when cornering

The NX has been designed to deliver an engaging and agile drive, and a high level of ride comfort.

Chief Engineer Takeaki Kato said his team benchmarked the innovations made in the latest IS saloon to secure better agility and stability. Mechanical assistance has been deployed as well, such as differential pre-loading for better, more precise cornering.

Changes to the Adaptive Variable Suspension system (an option for the NX F Sport models) mean that its control force levels have increased from nine to 30.

High body rigidity

Lexus has engineered a bodyshell for the NX that is both highly rigid and light, making

extensive use of high tensile strength sheet steel, combined with aluminium.

Advanced production techniques it pioneered in its development of the IS saloon, in particular body adhesives, laser screw welding and additional spot welds, have been used to strengthen the panel joints.

Laser screw welding around the door apertures is supplemented by new body adhesive techniques, additionally in the rear wheel housing and rear floor. Reinforcement around the suspension members creates a strong platform, and the number three cross-member is reinforced to support the drivetrain.

A high-rigidity urethane sealant is used for the windscreen, effectively making the glass load-bearing and increasing resistance to body flexing.

Heavy duty damping force has been applied to the rear door struts to ensure consistently snug alignment.

Suspension

The NX has MacPherson strut front suspension with high-rigidity upper supports and low-friction strut bearings. The suspension hardware includes barrel-shaped coil springs, large-diameter, high-rigidity wheel bearings, high damping bushes for the strut and number two lower arm mounting, and a high-rigidity anti-roll bar.

At the rear, there is a new trailing arm double wishbone system, optimised for agility, stability and ride comfort. By separating the coil springs and dampers, Lexus has minimised component intrusion into the luggage compartment and allowed for the lowest possible loadspace floor.

Special features include high-rigidity lower arm mountings, low-friction dampers and greater consistency in spring movement, aided by the shape of the trailing arm bushes.

Force control was a priority, to minimise the sound from shake and shudder caused by lateral loads from the road surface changing the tyre's tread width as the wheel reacts to an undulation. The NX has reinforced front lower suspension arm mountings so the tread width doesn't change with the wheel stroke, which also gives optimum steering feel and input control.

Chassis rigidity is key to suspension performance, and hence, agility. Thanks to the particularly high rigidity of the NX's bodyshell, it has been possible to increase the spring rate of the front upper support bushings, above the level that would have been possible with a softer platform, further optimising the suspension for agility.

Even the rigidity of the steering column installation goes beyond normal parameters. Friction between the dampers' moving parts has been minimised to overcome the feeling of road shock when cornering.

The dampers' bound and rebound curves have been optimised, especially at low piston speeds, to suppress body pitch and roll. Front and rear performance dampers (on the F Sport) are gas-pressurised and precisely machined to dampen minuscule body vibrations.

Drive Mode Select

Lexus Drive Mode Select provides integrated control of multiple systems to raise the level of driving pleasure and performance.

It gives drivers the choice of Normal, Eco and Sport driving modes, selected by means of a dial control on the centre console. A button next to the dial lets the driver select an additional EV all-electric mode. In each mode the throttle action is adjusted according to whether economy or performance is prioritised.

When Adaptive Variable Suspension is specified as an option on the NX 300h or 200t F Sport, an additional Sport+ mode is added to the Drive Mode Select system.

Drive Mode Select also simultaneously modifies the power steering assistance and suspension damping force setting.

Adaptive Variable Suspension

The F Sport models are available with an optional linear solenoid-type Adaptive Variable Suspension. Working in conjunction with Drive Mode Select (which adds Sport+ mode), it automatically adjusts suspension damping in all driving conditions to achieve the highest possible straight line ride comfort and high-speed stability, with suppression of body roll and better cornering agility.

Lexus's breakthrough of using linear solenoid actuators in place of the more conventional

step motors more than trebles the number of control force levels – from nine to 30. The actuator is more compact, too, so it has been possible to relocate it from the top of the damper unit to its lower side, creating a lower bonnet line and more load space. As a result, suspension response time has decreased four-fold, from 80 to 20 milliseconds.

AVS operation is governed by nine control inputs: -

- Vehicle Speed Sensing Control gives ride comfort at low speeds and handling stability at higher speeds
- Roll Attitude Control maintains the optimum vehicle attitude during cornering
- Anti-dive Control moderates the tendency to pitch forward under braking
- Anti-squat Control acts during acceleration to keep the vehicle level
- Rebound Control works best on rough surfaces, smoothing out bumps
- Ruggedness Sensing Control decreases damping force when vibration from uneven road surfaces is sensed
- Unsprung Mass Variation Damping Control increases damping force when components such as the wheels start to resonate on uneven surfaces
- VSC Co-operative Control works with the vehicle stability control systems to provide the best handling options when the vehicle starts to skid, for example on a damp surface
- Pre-Crash Safety System Co-operative Control provides extra damping force for accident avoidance under heavy braking

ENGINES AND POWERTRAINS

- Lexus NX 300h available in the UK with front or all-wheel drive
- Lexus NX 200t uses Lexus's first turbo petrol engine with six-speed automatic transmission and intelligent all-wheel drive
- Hybrid system features 2.5-litre Atkinson cycle engine and one or two electric motors
- Total hybrid system output 195bhp, fuel economy of 56.5mpg and CO₂ emissions from 116g/km for FWD model, 54.3mpg and 121g/km for AWD versions
- NX 300h's innovative AWD system provides optimum control, agility and cornering stability with increased fuel economy

NX 300h

The NX 300h is equipped with a 2.5-litre Atkinson cycle hybrid petrol engine with E-CVT transmission and, on all-wheel drive versions, Lexus's E-Four system.

All-wheel drive system

In the UK the entry-level NX 300h S features front-wheel drive; all other versions use an all-wheel drive system.

All-wheel drive is provided by Lexus's E-Four system, which uses an additional electric motor to drive the rear axle when needed. Grip, control and agility are enhanced by innovations including a pre-loaded front differential and yaw rate feedback control.

The pre-loaded front differential, featured for the first time in a Lexus, ensures straight line stability and acceleration performance when the differential is under light loads and when there is a low speed difference between the left and right wheels when cornering.

The differential uses a plate spring between the side gear and side gear washer to add pre-load, which limits torque split between the front wheels. At higher speeds it operates as an open differential.

NX 300h hybrid powertrain

The NX 300h brings the unique driving experience of Lexus Hybrid Drive to the compact premium SUV segment for the first time. The system uses a proven Lexus 2.5-litre Atkinson cycle petrol engine, a generator, electric motor and hybrid battery with a sophisticated HV control unit developed specially for the NX.

Total system output is 195bhp/145kW with combined cycle fuel consumption of 56.5mpg and CO₂ emissions of 116g/km for the FWD S model, and 54.3mpg and 121g/km for the AWD versions.

Lexus's fine-tuning of the engine has produced greater responsiveness and fuel efficiency. Improvements include a water-to-oil cooler for the electric drive motor and a revised front drive reduction ratio, improving fuel economy and hill-climbing capability.

A new HV transaxle provides a kick-down function for sharper acceleration. The unit comprises an electric motor generator and an electric drive motor, linked by a double set of planetary gears.

The planetary gear set fulfils three roles simultaneously: it operates as a power split device

between the generator and front wheels; as a reduction gear for the electric motor, and, when both work together, as an electronically controlled constant velocity transmission (E-CVT). The transaxle provides a sequential shift, allowing maximum power to be delivered on demand and increasing engine braking.

The hybrid powertrain is offered with FWD in the NX 300h S and with the Lexus E-Four electric motor-powered AWD system in other grades.

Acceleration feel

New HV control software which minimises engine flare during acceleration has the effect of increasing the sensation of linear acceleration. Engine speed has been increased relative to the accelerator pedal angle, creating the feeling of a downshift. The NX adjusts to the target engine speed and to the G-force applied to the vehicle, giving a more natural feeling of acceleration, without excessive adjustment to the engine speed and gear ratio.

New features

The NX has a unique torque control to reduce pitching motion when driving on an uneven road surface. The pre-loaded front differential (details above) is also featured as part of the NX 300h's E-Four AWD system.

E-Four AWD

Lexus's E-Four system uses an additional electric motor to drive the rear axle, while the front axle is propelled by power from the petrol engine, electric motor, or a combination of both.

The sophisticated system varies torque distribution to the rear wheels, according to driving dynamics and road conditions, providing the kind of stability when pulling away and acceleration performance on slippery roads that's appropriate for an AWD vehicle.

E-Four saves energy and fuel, as all-wheel drive is only engaged when needed. When the system detects a loss of traction to the front wheels, it reduces the electricity supply to the traction motor in the transaxle and increases the supply to the rear axle motor. The rear motor also acts as a generator when the vehicle is in regenerative braking mode, increasing the amount of kinetic energy that can be recovered.

CO₂ emissions

The NX 300h achieves CO₂ emissions of 116g/km for the FWD model. The level has been kept low with help from improvements in aerodynamics, minute adjustments to the

transmission and alterations to the control system. Emissions for the AWD versions are 121g/km.

New engine mounts

The NX 300h's engine mounts are tuned to suppress engine vibration at start up, reducing fuel consumption and contributing to ride comfort. The mounts allow for only 10 per cent of conventional deviation from the engine's normal axis away from its centre of gravity – the cause of vibration.

The offset between the axis and the centre of gravity was reduced by a matter of millimetres by adjusting the engine mounts. This detailed work has also had a positive effect on handling.

NX 200t

Lexus's first turbocharged direct-injection petrol engine was developed in-house with the aim of achieving exciting performance with the best possible fuel efficiency.

The innovative 2.0-litre, in-line four-cylinder unit is the first in the world to combine a water-cooled cylinder head with an integral, four-into-two exhaust manifold and a twin-scroll turbocharger.

The engine meets Euro 6 emissions requirements. It generates maximum power of 235bhp (175kW) at 4,800 – 5,600rpm and 350Nm of torque from 1,650 to 4,000 rpm. This gives the NX 200t nought to 62mph acceleration in 7.1 seconds and a maximum speed of 124mph. Average fuel consumption for the NX 200t F Sport is 35.8mpg with 183g/km CO₂ emissions.

World-first combination of engine technologies

Lexus has used a world-first combination of engine technologies to achieve a high level of responsiveness, minimal turbo lag and good low-speed torque, together with excellent fuel economy.

The four-into-two exhaust manifold pairs cylinders according to their expansion or compression stroke. This innovative structure acts in conjunction with the highly efficient twin-scroll turbocharger and prevents interference between the exhaust gases from each cylinder, generating high torque across the widest possible rev range.

The engine also uses an air-to-liquid intercooler mounted directly on the engine, significantly reducing the intake volume downstream of the turbo, so minimising turbo lag and securing highly responsive performance.

The twin-scroll turbocharger itself features variable wastegate valve control. This minimises pumping losses by reducing back pressure during low engine loads when the turbo isn't required. This gives excellent fuel economy and also contributes to the engine meeting Euro 6 emissions standards.

Integrating the exhaust manifold within the cylinder head improves exhaust gas cooling without sacrificing the warm-up performance of the catalyst. This suppresses catalyst deterioration, but also expands driving range at the optimum, stoichiometric air-fuel ratio.

D-4ST fuel injection

The D-4ST fuel injection system combines direct fuel injection and turbocharging technology to create a high level of compatibility between the high tumble ratio (achieved by optimising the shape of the cylinder head intake ports), the piston tops and the turbo boost control.

D-4ST uses a high pressure fuel system for injection directly into the cylinders and a low pressure system for port injection. Injection is split between the direct and port injectors according to engine load, optimising fuel combustion in all driving situations to improve both low-speed torque and fuel economy.

Dual VVT-iW technology

The new Lexus turbo engine features innovative dual intelligent variable valve-timing technology – Dual VVT-iW. This allows torque to be optimised throughout the rev range and enables the engine to run at start-up on the Otto cycle, then to switch to the more fuel-efficient Atkinson cycle. The system applies VVT-i to the exhaust valves and VVT-iW to the intake valves.

The late closing of the intake valve on the Atkinson cycle reduces pumping losses and boosts fuel economy. VVT-iW incorporates a mid-position lock which not only enables the Atkinson cycle to be maintained without sacrificing starting performance in cold weather, but also delivers wide open throttle performance.

Light weight and further advanced features

The engine is remarkably light and compact, weighing just 160kg. It features a cylinder head cover, intake manifold and intake pipes formed in a resin material, and the aluminium alloy used for the cylinder head sub-assembly has superior heat-conducting properties. Weight has also been trimmed by reducing the number and thickness of parts. The unit underwent more than 10,000 hours of bench testing prior to covering more than a million kilometres in on-road trials.

A number of measures were taken to reduce friction losses in different parts of the engine, helping improve fuel economy. These include using an offset crankshaft to lower the piston thrust load; improved machining of the cylinder bore; and a surface treatment for the pistons which reduces slide resistance. Low-tension piston rings have been used and the weight of reciprocating parts has been reduced.

There is also a lightweight roller rocker valvetrain and a low-friction timing chain. Low-friction materials have also been used for the crankshaft oil seals, and the flow of lubricating oil has been optimised, with a variable discharge mechanism reducing the oil pump flow.

Careful heat management inside the engine further improves fuel efficiency: a rapid warm-up system for the cylinder block suppresses the flow of coolant into the block when the engine is cold, and a piston-cooling oil jet control system cuts the oil supply to the pistons to improve warm-up speeds.

Smoothness, quietness and turbo sound

With the rigidity of its main structural components already optimised to suppress vibration, the new engine is also equipped with a balance shaft with resin gears for even greater smoothness.

New, calcium-free lubricating oil helps prevent engine knock at low revs; the piston cooling oil jet system further improves anti-knock performance.

The water-cooled intercooler provides strong advantages in acceleration from standstill, and delivers a 0.3-second reduction in the 0-62mph acceleration time compared to an air-to-air unit. The acceleration curve prioritises torque delivery at low speeds.

Turbo engines tend to be noisy when the throttle is closed – the effect known as “turbo sigh”. Lexus has used an electric air bypass valve and resonator to greatly reduce the characteristic turbo noise. As a turbocharged engine requires a smooth intake flow for

performance, Lexus's engineers focused on creating special duct shapes that deliver power without noise.

New six-speed transmission

The engine is matched to a new automatic six-speed transmission to achieve a balance of boost pressure for performance and fuel economy. Torque-demand control logic calculates the required engine torque and maximises it for quick, responsive acceleration.

SAFETY

- Advanced Pre-Crash Safety system
- All-Speed Adaptive Cruise Control
- Lane Keep Assist
- Blind Spot Monitor with Rear Cross Traffic Alert
- Automatic headlight high beam
- High rigidity body
- Eight airbags
- Enhanced pedestrian protection

Lexus takes its advanced vehicle safety technology to another level with the new NX, its first UK model to be fitted as standard with radar-controlled systems to help prevent an accident happening.

All versions will be equipped with a Pre-Crash Safety system and Adaptive Cruise Control as part of a comprehensive array of active, passive and preventive safety features. Together these demonstrate the priority Lexus has given to securing the best protection for everyone on board.

Pre-Crash Safety system

The Pre-Crash Safety system uses a millimetre-wave radar sensor in the front grille to detect vehicles and other obstacles on the road ahead. If there is a high risk of a collision, PCS will alert the driver with a buzzer and visual warning, activate the Pre-Crash Seatbelt pretensioners, and, when the driver begins to brake, provide Pre-Crash Brake Assist to supplement the braking effort. If the driver does not apply the brakes and a collision becomes inevitable, the Pre-Crash system will automatically apply the brakes to reduce impact speed and lessen the consequences of the impact.

All-speed Adaptive Cruise Control

The NX's Adaptive Cruise Control uses the same front-mounted millimetre-wave radar sensor as the Pre-Crash Safety system and steering sensors to recognise a vehicle ahead and maintain a safe distance. The latest development of Lexus's technology works at all speeds, even down to standstill. Once on the move again, the system will automatically accelerate smoothly back to the pre-selected speed.

Active safety

The active safety technology includes Lane Keep Assist, Blind Spot Monitor and Rear Cross Traffic Alert.

Lane Keep Assist with steering control sounds a warning buzzer if it judges that the vehicle is about cross lane markings without using the turn indicators. Appropriate steering assistance is initiated to help avoid moving out of lane.

The Blind Spot Monitor and Rear Cross Traffic Alert use millimetre-wave radars on each side of the NX that detect vehicles moving in the driver's blind spot, or approaching from either side when the car is being reversed out of a parking space. Both systems warn the driver of nearby vehicles by triggering lights in the door mirror on the appropriate side of the car.

The NX is equipped with daytime running lights, a rear-view camera and front and rear fog lamps, as well as numerous electronic safety and handling systems. These include an emergency brake signal, Vehicle Stability Control, Traction Control, ABS with brake assist and electronic Brakeforce distribution and Hill-start Assist Control.

Automatic high beam

The automatic high beam function (standard on the NX 300h Premier) uses a windscreen-mounted camera to detect both on-coming traffic and vehicles ahead. It automatically switches the LED headlamps to high beam when the road ahead is clear, and to low beam to prevent other road users being dazzled.

Passive safety

In line with Lexus's stringent car-to-car impact compatibility standards, the NX has been created with the aim of achieving class-leading performance.

Front and side impact protection measures include the use of high tensile strength sheet steel (up to 980Mpa) in key areas, including the centre pillar hinge reinforcement, outer

rockers and roof cross-members. In a collision, side impact load is direct to the floor through cross-members built into the rockers beneath the centre pillars.

The roof impact resistance structure disperses load when the roof is crushed, minimising cabin distortion. It includes front pillar reinforcement and high-strength steel reinforcements in the centre pillars, and reinforcement around the seatbelt anchors.

In the cabin there are energy-absorbing structures in the pillars and headlining and impact-absorbing pads in the front and rear door trims, alongside the occupants' lumbar region. All models are fitted with Whiplash Injury-Lessening front seats.

Airbags

All versions of the NX come with eight airbags, including a dual-stage driver's airbag, dual-stage and dual-chamber front passenger airbag, driver's knee airbag, front passenger cushion airbag, front side airbags and full-length curtain airbags.

Pedestrian Protection

Pedestrian protection provisions include an energy-absorbing structure for the bonnet and wing mounting bracket and an impact-absorbing structure for the cowl. Energy-absorbing material is used in the front of the bumper and beneath the radiator support, to reduce the risk of leg injuries.

LEXUS NX F SPORT

- Dedicated exterior design elements that create an even stronger look
- Exclusive interior trims and features
- Front and rear performance dampers
- Premier Pack option for prestige equipment specification

The F Sport stands out from the rest of the NX range thanks to its distinctive styling modifications, giving the model a visual dynamic upgrade inside and out.

F Sport grille and exterior

The F Sport grille is combined with a lower bumper moulding with a metallic coating. The large spindle-shaped opening features a mesh that uses the Lexus L motif in its design, graded in size from the bottom up. The styling is further accentuated by a sporting black

coating for the door mirrors and signature F Sport emblem on the front quarter panel.

The F Sport's dedicated 10-spoke alloys (with 225/60R18 tyres) feature a striking combination of black-painted lateral edges and a luminous machined finish.

F Sport exclusive colour and interior

In the cabin, the meter, steering wheel, gear shift, sports seats, pedals, instrument panel pad and option of a Dark Rose trim colour are all exclusive to the F Sport.

The injection-moulded seats hug the body and give extra lateral support. There are perforated, non-slip aluminium pedals and driver's foot brace, and the steering wheel is wrapped in grippy perforated leather.

The F Sport emblem is displayed on the lower part of the steering wheel and there is a brushed metallic finish to the gear shift lever and scuff plates.

Performance dampers

The NX F Sport gains front and rear performance dampers that improve rigidity and reduce vibration, contributing to better handling stability.

G-sensor and boost meter

The NX F Sport models include Lexus's first G-force sensors – the G-Monitor – in the multi-information display.

The G-Monitor screen shows a G-ball moving in line with the lateral and longitudinal forces on the vehicle, indicating the peak force experienced in each direction. Additional display bars indicate the steering angle, throttle opening and hydraulic brake pressure.

In the NX 200t F Sport, the multi-information display provides a turbo boost meter (a first in a Lexus), with the colour changing through the high boost pressure range. There are analogue displays for oil temperature and pressure.

Premier Pack option

A Premier Pack option, introduced for the NX 300h F Sport, allows customers to match the equipment specification of their vehicle with the top-of-the range Premier model. Its features include Lexus Premium Navigation, 14-speaker Mark Levinson surround sound system, a head-up display, heated steering wheel, 360-degree panoramic camera and Adaptive

Variable Suspension. It also increases the car's safety features, adding Automatic High Beam, Lane Keep Assist, Blind Spot Monitor and Rear Cross Traffic Alert functions.

UK MODEL RANGE AND EQUIPMENT

The NX 300h is available in six equipment grades, all demonstrating Lexus's continued commitment to luxury, comfort and the application of advanced, user-friendly technologies. The NX 200t is available exclusively in F Sport trim.

The NX was the first model to feature Lexus's Pre-Crash Safety system and Adaptive Cruise Control as standard on all versions. Other "firsts" for a Lexus include a wireless charging tray for easy charging of mobile phones and other devices and the first application of a new Remote Touch Interface with a touch pad control.

Further features include a new Panoramic View Monitor, a comprehensive multi-information display, head-up display, blind spot monitor and Rear Cross Traffic Alert.

A new Sport grade was added to the line-up for the 2017 model year, together with a Premium Pack option for the NX 300h F Sport.

The NX 300h S, the entry point to the range, is available with front-wheel drive only; all other NX models have all-wheel drive – the E-Four system for the hybrid and an intelligent, full time mechanical system for the NX 200t.

The NX 200t is available in the UK exclusively in F Sport trim. It is distinguished by styling details that emphasise its more performance-orientated character.

The equipment specification matches that of the NX 300h F Sport, providing a wealth of advanced technology and luxury features.

Equipment specifications and options

Standard features of the NX 300h S include: -

- 17-inch alloy wheels
- LED low-beam headlights and daytime running lights
- Pre-Crash Safety system and Adaptive Cruise Control
- Reversing camera
- Dual zone climate control

- Eight-speaker audio system
- Lexus Media Display with Remote Dial controller
- DAB digital radio
- 60/40 folding rear seats
- Electric, folding door mirrors
- Drive Mode Select
- Vehicle Dynamics Integrated Management
- Hill-start Assist Control
- Eight airbags
- USB multimedia port
- Remote double door locking
- Speed-sensitive automatic door locking

SE grade adds: -

- All-wheel drive
- Integrated roof rails
- 18-inch alloys
- Rain-sensing wipers
- Heated front seats with eight-way power adjustment
- Towing capacity (1,500kg braked, 750kg unbraked trailer)

The Sport model adopts: -

- Lexus Navigation
- Black spindle grille and mesh
- Black 18-inch alloys
- Black door mirror housings
- Black Tahara upholstery
- Aluminium trim inlays

Further features which are standard on the Luxury grade (in addition to SE specification) include: -

- LED fog lamps with cornering function
- Rear privacy glass
- Heated, electrically adjustable leather front seats
- Silver trim inserts and scuff plates
- Parking sensors

- Auto-dimming rear-view mirror
- Smart Entry

The F Sport gains a series of dedicated styling features as well as further equipment: -

- 18-inch alloys with two-tone finish
- Headlights with LED high and low beam functions
- F Sport heated electric leather front seats with lumbar support
- F Sport suspension with performance dampers
- Electric steering column adjustment
- Power tailgate
- Wireless smartphone charger
- Turbo boost gauge – NX 200t

At the top of the range the Premier model builds on the Luxury specification with: -

- 18-inch alloys with dedicated design
- Headlights with LED high and low beam functions and adaptive high beam
- Auto-dimming door mirrors
- Heated and ventilated front seats with lumbar support
- Driver's seat position memory
- Mark Levinson premium audio system
- Card key
- Lexus Premium Navigation with Remote Touch Interface touch pad
- 360-degree panoramic view
- Lane Keep Assist
- Head-up Display
- Rear Cross Traffic Alert
- Heated steering wheel
- Blind spot monitor

Options and option packs

Lexus Navigation is available as an option on S, SE, Luxury and F Sport grades.

The NX 300h Luxury can be specified with a Convenience Pack, comprising the wireless smartphone charger and power-operated tailgate. Customers can add a sunroof (£1,000) or panoramic roof to the Luxury, F Sport and Premier NX models and Lexus's Adaptive Variable Suspension system can be added to the F Sport specification. Metallic paint is an

option on all models.

A Premier Pack option enables customers to match the specification of the NX 300h F Sport with the top-of-the-range Premier model. The pack includes Lexus Premium Navigation, 14-speaker Mark Levinson surround sound system, a head-up display, heated steering wheel, 360-degree panoramic camera and Adaptive Variable Suspension. It also increases the car's safety features, adding Automatic High Beam, Lane Keep Assist, Blind Spot Monitor and Rear Cross Traffic Alert functions.

NX Timeline and sales figures

2014	March	Lexus announces the NX , its first compact crossover.
	April	The NX makes its world debut at the Beijing motor show.
	May	NX prices and specifications are released.
	October	The NX 300h is launched in the UK .
2015	January	The NX 200t is confirmed for the UK.
	March	First deliveries of the NX 200t to British customers.
2016	October	Sport grade is added to the NX line-up.

NX sales in 2016: 4,118

Cumulative sales since launch (2014): 8,770

LEXUS NX TECHNICAL SPECIFICATIONS

ENGINE – NX 200t	
Engine code	8AR-FTS
Engine type	4 cylinders in-line, turbocharged petrol with aluminium alloy block and head
Valve mechanism	16 valve DOHC, Dual VVT-iW
Displacement (cc)	1,998
Bore x stroke (mm)	86 x 86
Compression ratio	10.0:1
Max. power (bhp/kW @ rpm)	235/175 @ 4,800 – 5,600
Max. torque (Nm @ rpm)	350 @ 1,650
Fuel system	EFI, D-4ST
ENGINE – NX 300h	
Engine code	2AR-FXE

Engine type	4 cylinders in-line, aluminium alloy block and heads	
Valve mechanism	16 valve DOHC, VVT-i	
Displacement (cc)	2,494	
Bore x stroke (mm)	90.0 x 98.0	
Compression ratio	12.5.0:1	
Total system output – front electric motor and hybrid engine (bhp/kW)	195/145	
Max. engine power (bhp/kW @ rpm)	153/114 @ 5,700	
Max. engine torque (Nm @ rpm)	210 @ 4,200-4,400	
Emissions certification	Euro 6	
HYBRID SYSTEM – NX 300h		
Electric motor (front)		
Type	Permanent magnet, synchronous motor	
Max. voltage	650	
Max. power (bhp/kW)	141/105	
Max. torque (Nm)	270	
Hybrid battery		
Type	Nickel metal-hydride	
Nominal voltage	244.8	
Number of cells	204	
System voltage	650	
PERFORMANCE	NX 300h	NX 200t
0-62mph (sec)	9.2	7.1
Max. speed (mph)	112	124
DIMENSIONS		
Overall length (mm)	4,630	
Overall width –mirrors folded (mm)	1,845	
Overall width – including mirrors (mm)	2,130	
Overall height (mm)	1,645	
Wheelbase (mm)	2,660	
Track front (mm)	1,580	
Track rear (mm)	1,580	

Overhang front (mm)		995	
Overhang rear (mm)		975	
Coefficient of Drag (Cd)		0.34	
Fuel tank capacity (litres)		56 – 300h 60 – 200t	
INTERIOR DIMENSIONS			
Interior length (mm)		2,080	
Interior width (mm)		1,520	
Interior height (mm)		1,180 1,165 (with panoramic roof)	
Luggage capacity (VDA, litres)	Rear seats up	475 – 300h 500 – 200t	
	Rear seats folded	1,520 – 300h 1,545 – 200t2	
WEIGHTS (kg)		NX 300h	NX 200t
Kerb weight	S	1,715 – 1,755	n/a
	Other grades	1,785 – 1,905	1,735 – 1,845
Gross vehicle weight	S	2,245	n/a
	Other grades	2,395	2,335
Towing capacity – braked	S	Towing prohibited	n/a
	Other grades	1,500	1,500
Towing capacity – unbraked	S	Towing prohibited	n/a
	Other grades	750	750
TRANSMISSION – NX 300h		E-CVT	
Gear ratios	Forward	3.750	
	Reverse	3.542	
Differential Gear Ratio		6.859	
TRANSMISSION – NX 200t		6-speed automatic with sequential shift mode	
Gear ratios	1 st	3.300	
	2 nd	1.900	
	3 rd	1.420	
	4 th	1.000	
	5 th	0.713	
	6 th	0.608	
	Reverse	4.148	
Differential Gear Ratio (front/rear)		3.880/2.770	
Driven wheels		All-wheel drive	
FUEL CONSUMPTION		NX 300h	NX 200t
Combined (mpg)	S	56.5	n/a
	Other grades	54.3	35.8
Urban (mpg)	S	56.5	n/a

	Other grades	53.3	27.2
Extra urban (mpg)	S	56.5	n/a
	Other grades	55.4	43.5
EMISSIONS, INSURANCE & SERVICING		NX 300h	NX 200t
CO ₂ (g/km)	S	116	n/a
	Other grades	121	183
Insurance groups	S	29E	n/a
	SE	31E	n/a
	Luxury	32E	n/a
	F Sport	32E	38E
	Premier	33E	n/a
Service intervals		10,000 miles/annually	
SUSPENSION			
Front		MacPherson strut	
Rear		Trailing arm, double wishbones	
BRAKES			
Front (diameter x thickness, mm)		Ventilated discs 328 x 28	
Rear (diameter x thickness, mm)		Discs 281 x 12	
STEERING			
Type		Rack and pinion, electric power steering	
Ratio		14.7:1	
Turns (lock to lock)		2.68	
Min. turning radius (m)	Tyre	5.7	
	Body	6.05	
TYRES & WHEELS			
Tyre & wheel size	S	17in, 225/65R17	
	Other grades	18in, 225/60R18	

LEXUS NX EQUIPMENT SPECIFICATIONS

SAFETY	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Driver & front passenger airbags	✓	✓	✓	✓	✓	✓
Driver & front passenger side airbags	✓	✓	✓	✓	✓	✓
Driver's knee airbag	✓	✓	✓	✓	✓	✓
Front passenger cushion airbag	✓	✓	✓	✓	✓	✓
Curtain Shield airbags	✓	✓	✓	✓	✓	✓
Front passenger airbag cut-off switch	✓	✓	✓	✓	✓	✓
Child proof locks on rear doors	✓	✓	✓	✓	✓	✓
ABS	✓	✓	✓	✓	✓	✓
Electronic Brakeforce Distribution (EBD) with Brake Assist System (BAS)	✓	✓	✓	✓	✓	✓
Vehicle Stability Control (VSC)	✓	✓	✓	✓	✓	✓
Traction Control (TRC)	✓	✓	✓	✓	✓	✓
Vehicle Dynamics Integrated Management	✓	✓	✓	✓	✓	✓
Hill-start Assist Control (HAC)	✓	✓	✓	✓	✓	✓
Lane Keep Assist and Blind Spot Monitor with Rear Cross Traffic Alert	✗	✗	✗	✗	Opt*	✓
Tyre Pressure Monitoring System	✓	✓	✓	✓	✓	✓
Electronic front seatbelt pretensioners with force limiters	✓	✓	✓	✓	✓	✓
Five three-point seatbelts	✓	✓	✓	✓	✓	✓
High mounted rear stop light	✓	✓	✓	✓	✓	✓
Emergency brake signal	✓	✓	✓	✓	✓	✓
Seatbelt warning system	✓	✓	✓	✓	✓	✓
ISOFIX child seat anchor points on outer rear seats	✓	✓	✓	✓	✓	✓
Adaptive Variable Suspension	✗	✗	✗	✗	Opt*	✗
Pre-Crash Safety system	✓	✓	✓	✓	✓	✓
All-speed Adaptive Cruise Control	✓	✓	✓	✓	✓	✓
LED headlights with automatic high beam	✗	✗	✗	✗	✗	✓

INSTRUMENTS & CONTROLS	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Drive Mode Select	✓	✓	✓	✓	✓	✓
Active Sound Control	✓	✓	✓	✓	✓	✓
Speed-sensitive electric power steering	✓	✓	✓	✓	✓	✓
Head-up display	✗	✗	✗	✗	Opt*	✓
Turbo boost gauge (NX 200t)	✗	✗	✗	✗	✓	✗
AUDIO, NAVIGATION & INFORMATION	S	SE	SPORT	LUXURY	F SPORT	PREMIER
8in VGA screen	✓	✓	✓	✓	✓	✓
Lexus Media Display with 8-speaker audio, CD player, DAB, DAB+, remote dial control and parking monitor	✓	✓	✓	✓	✓	✗
Lexus Navigation with remote dial control	Opt	Opt	✓	Opt	Opt	✗
Lexus Premium Navigation with 10-speaker audio, DAB, DAB+, DVD player, Connected Services, Remote Touch Interface and parking monitor	✗	✗	✗	✗	Opt	✗
Lexus Premium Navigation with 14-speaker Mark Levinson surround sound system, DAB, DAB+, DVD player, Connected Services, Remote Touch Interface and 360° Panoramic View Monitor	✗	✗	✗	✗	Opt*	✓
Smartphone wireless charging tray	✗	✗	✗	Opt	✓	✓
USB and Aux socket	✓	✓	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓	✓	✓
COMFORT & CONVENIENCE	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Dual-zone climate control	✓	✓	✓	✓	✓	✓
Reach and rake steering wheel adjustment	✓	✓	✓	✓	✗	✗
Power steering wheel adjustment with lock	✗	✗	✗	✗	✓	✓

Power windows	✓	✓	✓	✓	✓	✓
Rain-sensing wipers	✗	✓	✓	✓	✓	✓
Push-button start	✓	✓	✓	✓	✓	✓
Smart Entry and Start	✗	✗	✗	✓	✓	✓
Adjustable turn indicator flash sequence (3, 5, 7 or 11)	✓	✓	✓	✓	✓	✓
Illuminated entry system	✓	✓	✓	✓	✓	✓
Card key	✗	✗	✗	✗	Opt*	✓
Power tailgate	✗	✗	✗	Opt	✓	✓
Auto-dimming rear-view mirror	✗	✗	✗	✓	✓	✓
3-spoke leather-trimmed steering wheel with audio controls	✓	✓	✓	✓	✗	✗
3-spoke leather-trimmed, heated steering wheel with audio controls	✗	✗	✗	✗	✗	✓
F Sport leather-trimmed steering wheel with audio and telephone controls and paddle shifts	✗	✗	✗	✗	✓	✗
Integrated steering wheel heater	✗	✗	✗	✗	Opt*	✓
Analogue clock	✓	✓	✓	✓	✓	✓
12v accessory socket	✓	✓	✓	✓	✓	✓
SECURITY	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Alarm with siren and two sensors	✓	✓	✓	✓	✓	✓
Two-motion double door locking	✓	✓	✓	✓	✓	✓
Speed-sensitive auto door locking	✓	✓	✓	✓	✓	✓
VIN etching	✓	✓	✓	✓	✓	✓
SEATING, UPHOLSTERY & TRIM	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Cloth upholstery	✓	✓	✗	✗	✗	✗
Tahara upholstery	✗	✗	✓	✗	✗	✗
Leather upholstery	✗	✗	✗	✓	✓	✓
Heated front seats	✗	✓	✓	✓	✓	✗
Heated and ventilated front seats	✗	✗	✗	✗	✗	✓
6-way manual front seat adjustment	✓	✗	✗	✗	✗	✗
8-way power front seat adjustment	✗	✓	✓	✓	✗	✗
Power-adjustable F Sport front seats (10-way driver, 8-way front	✗	✗	✗	✗	✓	✗

passenger), with lumbar adjustment						
Power-adjustable front seats (10-way driver, 8-way front passenger), lumbar adjustment and memory function	x	x	x	x	x	✓
60:40 split-folding rear seats	✓	✓	✓	✓	✓	✓
Front and rear armrests	✓	✓	✓	✓	✓	✓
Leather gear shift trim	✓	✓	✓	✓	x	✓
F Sport leather gear shift trim	x	x	x	x	✓	x
Aluminium sports pedals and foot rest	x	x	x	x	✓	x
Aluminium-effect trim	x	x	✓	x	✓	x
Black headlining	x	x	x	x	✓	x
F Sport scuff plates	x	x	x	x	✓	x
Alloy scuff plates	x	x	x	✓	x	✓
EXTERIOR	S	SE	SPORT	LUXURY	F SPORT	PREMIER
Auto-folding heated door mirrors with integrated turn indicators	✓	✓	✓	✓	✓	x
Auto-folding, auto-dimming, heated door mirrors with integrated turn indicators	x	x	x	x	x	✓
Black door mirror casings	x	x	✓	x	✓	x
Rear privacy glass	x	x	x	✓	✓	✓
LED low-beam headlamps	✓	✓	✓	✓	x	x
LED low and high-beam headlamps	x	x	x	x	✓	✓
Automatic high-beam headlamps	x	x	x	x	Opt*	✓
LED daytime running lights	✓	✓	✓	✓	✓	✓
Adaptive LED front fog lights	x	x	x	✓	✓	✓
LED rear lights	✓	✓	✓	✓	✓	✓
Illuminated doorhandles with puddle lights	✓	✓	✓	✓	✓	✓
Sunroof	x	x	x	Opt	Opt	Opt
Panoramic roof	x	x	x	Opt	Opt	Opt
Front and rear parking sensors	x	x	x	✓	✓	✓
Front bumper with lower lip	x	x	x	x	✓	x
Spindle grille mesh with L motif	x	x	x	x	✓	x

Black spindle grille frame and mesh	x	x	✓	x	x	x
Integrated roof rails	x	✓	✓	✓	✓	✓
Shark fin antenna	✓	✓	✓	✓	✓	✓
17in alloy wheels	✓	x	x	x	x	x
18in alloy wheels	x	✓	x	✓	x	✓
18in black alloy wheels	x	x	✓	x	x	x
18in two-tone F Sport alloy wheels	x	x	x	x	✓	x
Space saver spare wheel	✓	✓	✓	✓	✓	✓
Metallic paint	Opt	Opt	Opt	Opt	Opt	Opt

* Option included in Premier Pack only.

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