

This press pack accompanied the UK launch of the first generation Lexus NX 300h in September 2014. Some changes were made to the model range during its time on sale, which can be tracked using the Timeline feature on the Lexus NX archive web page. Additional assets and information relating to the first generation NX can be obtained from the Lexus press office.

THE LEXUS NX 300h

LEXUS PRESENTS ITS FIRST COMPACT SUV

The all-new NX 300h 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 300h'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 300h 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 300h, 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 300h makes extensive use of advanced electronics and chassis engineering to produce a ride and handling package that is dynamic and enjoyable to drive.

The core Lexus qualities of higher refinement and progressive luxury are nowhere more evident than in its 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.

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 new NX 300h 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 NEW NX 300h

- 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 design
- 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 new NX 300h 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 300h 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, create 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 300h 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 hybrid 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 300h’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 300h (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 300h 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.

Six further colours are available: Satin Silver, Mercury Grey, Velvet Black, Celestial Black, Mesa Red, Ultra Blue and Meteor Blue Mica Metallic.

Exclusive wheel designs

Lexus has created a new range of lightweight cast alloy wheels for the NX 300h, 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 300h F Sport has a bespoke 18-inch wheel for its 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 300h 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. 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 300h has 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 new Lexus NX 300h 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 crossover 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 300h 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 new 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 new NX 300h 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 300h F Sport) 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 newly devised 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.

Operated using a dial control on the centre console, it gives drivers the choice of Normal, Eco and Sport driving modes. 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 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 NX 300h F Sport is available with an optional new-generation, 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
- 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

- New Lexus NX 300h available in the UK with front or all-wheel drive
- Hybrid system features 2.5-litre Atkinson cycle engine and one or two electric motors
- Total 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
- Innovative AWD system provides optimum control, agility and cornering stability with increased fuel economy

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, available for all NX AWD models.

Featured for the first time in a Lexus, the pre-loaded front differential 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, Band C for annual road tax (Vehicle Excise Duty). 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 (VED Band D).

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.

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 300h, 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 brake 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 300h'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 300h 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 windscreens-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 300h 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 300h 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

The F Sport stands out from the rest of the NX 300h 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

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.

UK MODEL RANGE, EQUIPMENT AND PRICING

The NX 300h is available in five equipment grades, all demonstrating Lexus's continued commitment to luxury, comfort and the application of advanced, user-friendly technologies. The NX 300h is 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.

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.

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
- Towing capacity (1,500kg braked, 750kg unbraked trailer)

Further features which are standard on the Luxury grade 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 NX 300h 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

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

Lexus Navigation is available as an option (£995) on S, SE, Luxury and F Sport grades, with the more sophisticated Lexus Premium Navigation system (£1,995) additionally offered for F Sport.

The NX 300h Luxury can be specified with a Convenience Pack (£495), comprising the new wireless smartphone charger and power-operated tailgate. Customers can add a sunroof (£1,000) or panoramic roof (£1,000) to the Luxury, F Sport and Premier NX models and Lexus's Adaptive Variable Suspension system (£750) can be added to the F Sport

specification. Across the board, metallic paint is a £645 option.

Model range and pricing

MODEL	PRICE
NX 300h S FWD	£29,495
NX 300h SE AWD	£31,495
NX 300h Luxury AWD	£34,495
NX 300h F Sport AWD	£36,995
NX 300h Premier AWD	£42,995

LEXUS NX 300h TECHNICAL SPECIFICATIONS

ENGINE	
Engine code	2AR-FXE
Engine type	4 cylinders in-line, aluminium 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
Max. power (bhp/kW @ rpm)	153/114 @ 5,700
Max. torque (Nm @ rpm)	210 @ 4,200-4,400
HYBRID SYSTEM	
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
Total system output – front electric motor and hybrid engine (bhp/kW)	195/145
PERFORMANCE	

0-62mph (sec)		9.2
Max. speed (mph)		112
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)		0.33
Fuel tank capacity (litres)		56
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
	Rear seats folded	1,520
WEIGHTS (kg)		
Kerb weight	S	1,715 – 1,755
	Other grades	1,785 – 1,905
Gross vehicle weight	S	2,245
	Other grades	2,395
Towing capacity – braked	S	Towing prohibited
	Other grades	1,500
Towing capacity – unbraked	S	Towing prohibited
	Other grades	750
TRANSMISSION		E-CVT
Gear ratios	Forward	3.750
	Reverse	3.542
Differential Gear Ratio		6.859
FUEL CONSUMPTION		
Combined (mpg)	S	56.5
	Other grades	54.3

Urban (mpg)	S	56.5
	Other grades	53.3
Extra urban (mpg)	S	56.5
	Other grades	55.4
EMISSIONS, VED, INSURANCE, TAX & SERVICING		
CO ₂ (g/km)	S	116
	Other grades	121
VED bands	S	C
	Other grades	D
Insurance groups	S	29E
	SE	31E
	Luxury	32E
	F Sport	32E
	Premier	33E
Benefit in kind tax rate (2014/15)	S	16%
	Other grades	17%
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 300h EQUIPMENT SPECIFICATIONS

SAFETY	S	SE	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	✗	✗	✗	✗	✓
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	LUXURY	F SPORT	PREMIER
Drive Mode Select	✓	✓	✓	✓	✓
Active Sound Control	✓	✓	✓	✓	✓
Speed-sensitive electric power steering	✓	✓	✓	✓	✓

Head Up Display	✗	✗	✗	✗	✓
AUDIO, NAVIGATION & INFORMATION	S	SE	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	✗	✗	✗	✗	✓
Smartphone wireless charging tray	✗	✗	Opt	✓	✓
USB and Aux socket	✓	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓	✓
COMFORT & CONVENIENCE	S	SE	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	✗	✗	✗	✗	✓
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	✗	✗	✗	✓	✗
Analogue clock	✓	✓	✓	✓	✓
12v accessory socket	✓	✓	✓	✓	✓
SECURITY	S	SE	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	LUXURY	F SPORT	PREMIER
Cloth 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	✗	✗	✗	✗	✓
60:40 split-folding rear seats	✓	✓	✓	✓	✓
Front and rear armrests	✓	✓	✓	✓	✓
Leather gear shift trim	✓	✓	✓	✗	✓
F Sport leather gear shift trim	✗	✗	✗	✓	✗
Aluminium sports pedals and foot rest	✗	✗	✗	✓	✗
Aluminium-effect trim	✗	✗	✗	✓	✗
Black headlining	✗	✗	✗	✓	✗
F Sport scuff plates	✗	✗	✗	✓	✗
Alloy scuff plates	✗	✗	✓	✗	✓
EXTERIOR	S	SE	LUXURY	F SPORT	PREMIER
Auto-folding heated door mirrors with integrated turn indicators	✓	✓	✓	✓	✗
Auto-folding, auto-dimming, heated door	✗	✗	✗	✗	✓

mirrors with integrated turn indicators					
Matt black door mirror casings	✗	✗	✗	✓	✗
Rear privacy glass	✗	✗	✓	✓	✓
LED low-beam headlamps	✓	✓	✓	✗	✗
LED low and high-beam headlamps	✗	✗	✗	✓	✓
Automatic high-beam headlamps	✗	✗	✗	✗	✓
LED daytime running lights	✓	✓	✓	✓	✓
Adaptive LED front fog lights	✗	✗	✓	✓	✓
LED rear lights	✓	✓	✓	✓	✓
Illuminated doorhandles with puddle lights	✓	✓	✓	✓	✓
Front and rear parking sensors	✗	✗	✓	✓	✓
Front bumper with lower lip	✗	✗	✗	✓	✗
Spindle grille mesh with L motif	✗	✗	✗	✓	✗
Integrated roof rails	✗	✓	✓	✓	✓
Shark fin antenna	✓	✓	✓	✓	✓
17in alloy wheels	✓	✗	✗	✗	✗
18in alloy wheels	✗	✓	✓	✗	✓
18in two-tone F Sport alloy wheels	✗	✗	✗	✓	✗
Space saver spare wheel	✓	✓	✓	✓	✓