

# **All-New Lexus NX Compact Luxury-Utility Combines Breakthrough Design and Choice of Turbo or Hybrid Power**

July 06, 2014

Image not found or type unknown



WHISTLER, British Columbia (July 6, 2014) – Lexus created the luxury-utility crossover category with the original mid-sized RX model in 1998 and is now poised to disrupt the growing compact segment with the all-new 2015 NX. Inspired by performance vehicles, the 2015 NX unites the engineering input of racers with the impeccable touch of Lexus luxury in a design that steals the show.

Following in the tire tracks of the new-generation Lexus GS and IS sedans, the 2015 NX brings dramatic design to a segment populated by boxy offerings. The boldest interpretation yet of the signature Lexus spindle grille and L-finesse design envelops a platform engineered by a team that includes active racers.

The 2015 Lexus NX debuts in two versions, the NX 200t with a turbocharged 2.0-liter four-cylinder engine and the NX 300h hybrid, which brings the brand's number of hybrid offerings to six, the most among luxury brands. The hybrid offers a real driving kick, thanks to a new transmission with a kick-down function. The racers on the team insisted on splitting the hybrid battery into two separate pods for better weight distribution; with the benefit of more efficient use of cabin space.

Both NX models offer their own version of pro-active all-weather drive (AWD).

Looking more sports-car than sport-utility, the 2015 NX's cabin is bristling with new, onboard, standard and available technology, including a Lexus-first Wireless Charging Tray for compatible phones and devices; the new Lexus Remote Touch Interface (RTI) with a touch pad; and a comprehensive Multi-information Display that features a Lexus-first G-Force meter and boost gauge.

The F SPORT badge on a Lexus tells you to expect a special driving experience. That's certainly the modus operandi of the NX F SPORT, which looks a bit sinister with its more aggressive grille and front lower bumper. Special wheels, black exterior mirrors and exclusive interior trim and front sport seats round out the package.

### **NX Development Team**

If there's an overt performance spirit permeating the 2015 Lexus NX, thank chief engineer Takeaki Kato. A racer himself, who won his class in a long distance race at the famed Fuji Speedway, Kato found kindred spirits in driving dynamics expert Keiichi Nishiyama, who races go-karts; product planning chief Hiroshi Inoue, who competes in club events, and powertrain specialist Sunao Ichihara, who played an important role in the Lexus LFA V10 engine program.

Kato combined experience with youth in his design team. Both interior designer Atsushi Narita and color and trim expert Momoko Okamoto are younger than 30 years old.

### **Firsts For Lexus NX**

The new Lexus NX features numerous firsts in a Lexus, among them:

- The all-new 2.0-liter turbocharged gasoline engine has a combination water-cooled cylinder head, integrated exhaust manifold and twin-scroll turbocharger.
- A kick-down switch in the hybrid, which, as in conventional vehicles, ensures maximum power is delivered when required.
- The front axle adopts a pre-load differential to control differential torque. It assists turning on slippery roads and straight-line stability at high speed.
- Standard energy-efficient LED headlights and taillights.
- Touch-sensitive interior lamp switches in the headliner.

## **POWERTRAINS AND DRIVELINES**

The 2015 Lexus NX debuts with freedom of choice: two powertrain choices, each with front-wheel drive or all-weather drive:

(1) an all-new 2.0-liter, 235-horsepower turbo gasoline engine, the brand's first turbo gasoline engine, is matched to a new six-speed automatic transmission.

(2) In the NX 300h hybrid, a 2.5-liter Atkinson-cycle gasoline engine has a new automatic transmission with a unique kick-down feature.

In the NX 200t, the available Dynamic Torque Control AWD system can instantly vary front and rear torque split between 50:50 and 100:0 for optimum traction and fuel economy. The NX 300h hybrid offers the Lexus E-Four AWD system with an electric motor to drive the rear axle when required.

In both models, a pre-loaded front differential (and yaw rate feedback control on AWD versions) ensures optimum grip, control and agility. 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. Under light loads, and when there is a low speed difference between the left and right wheels during cornering, the pre-loaded differential ensures straight-line stability and acceleration performance. At higher speeds, it operates as an open differential.

### **NX 200t: Dynamic Torque Control AWD**

The NX 200t with all-weather drive introduces Dynamic Torque Control AWD to provide maximum traction and cornering stability. The system continuously controls torque transfer between the front and rear wheels, using sensors for vehicle speed, steering angle, steering speed, throttle angle and yaw rate.

To conserve fuel, the system uses front-wheel drive during normal cruising. When required, it automatically engages AWD through an electromagnetically controlled coupling in the rear differential housing, directing up to 50 percent of available torque to the rear wheels. When the driver makes too wide of a turn, the Dynamic Torque Control AWD helps bring the vehicle back to the intended drive line.

### **NX 300h Hybrid: E-Four AWD**

The efficient Lexus E-Four proactive all-weather drive system in NX 300h hybrid uses an electric motor to drive the rear axle, while the front axle is propelled by gasoline or electric power, or a mixture of both. The sophisticated E-Four system varies torque distribution to the rear wheels, depending on driving dynamics and road conditions, and provides some rear-wheel torque at start-off to minimize chance of wheel-spin under acceleration and on slippery road surfaces.

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

The Lexus E-Four AWD system has situation-specific control features similar to Dynamic Torque Control proactive AWD in the NX 200t AWD model, including a yaw-rate control system for enhanced driving performance.

## **NX 200t: New Turbocharged Engine**

For its first-ever turbocharged gasoline engine, Lexus created an all-new engine architecture. The 2.0-liter turbocharged port and direct-injection engine uses an advanced valve control system to switch between Atkinson cycle and Otto cycle operation to optimize performance and fuel efficiency.

To minimize turbo lag, the four-into-two exhaust manifold system pairs cylinders according to their expansion or compression stroke to reduce pumping losses and eliminate exhaust gas interference. This results in improved acceleration response and wide torque band. The turbo engine produces 235 hp at 5,600 rpm with 258 lb.-ft. of torque from 1,650-4,000 rpm and up to 17psi of boost at wide open throttle. A balance shaft enhances smoothness.

The combination of direct fuel injection and additional port fuel injectors, as used on some other Lexus models, ensures ample power and crisp responsiveness at all engine speeds.

Combining the cylinder head, exhaust manifold and intercooler with variable wastegate control enhances low speed torque fuel economy. Active wastegate control minimizes pumping losses by reducing backpressure during low engine load. The water-cooled intercooler, mounted directly to the engine, provides strong advantages in acceleration. A dual exhaust system reduces backpressure and noise.

The D-4S fuel injection system provides the optimum mixture to realize the highly efficient rapid combustion.

To keep the engine oil clean, the intake system creates a syphon which draws carbon vapors away from the crankcase allowing for 10,000 miles between oil changes similar to aspirated engines.

Dual Variable Valve Timing with intelligence (VVT-iW) optimizes torque throughout the engine speed range and allows the engine to start in the Otto cycle and then run in the more fuel efficient Atkinson cycle. The late intake valve closing of the Atkinson cycle reduces pumping losses and boosts fuel economy.

The turbo engine was bench-tested for more than 10,000 hours before extensive on-road testing, covering more than 600,000 miles, began.

## **All-New Six-Speed Transmission**

An all-new sequential six-speed automatic transmission networks with the turbo engine to achieve an ideal level of boost pressure for performance and fuel economy. Torque-demand control logic calculates required engine torque and maximizes it, delivering quick response and exhilarating acceleration feel with good fuel efficiency.

The G-force Artificial Intelligence (G-AI) system is also adopted for more spirited driving. G-AI automatically selects the optimum gear and downshift pattern in response to G force.

## **NX300h: Hybrid With a Kickdown**

The NX 300h shares the sporty persona of its turbocharged sibling while delivering higher fuel efficiency. The Lexus Hybrid Drive system can be matched to 2WD or the Lexus E-Four AWD system.

Lexus tuned the 2AR-FXE 2.5-liter gasoline engine especially for use in the 2015 NX 300h. Enhancements include a water-to-oil cooler for the electric drive motor and a revised front drive reduction ratio, improving fuel economy and hill climbing.

Put your foot down on the highway, and you'll feel the hybrid's performance-tuned attitude. Its new P314 transmission provides a kick-down function for greater acceleration performance. The transmission consists of an electric motor generator and an electric drive motor linked by a double set of planetary gears. The planetary gearset simultaneously fulfills three roles: as a power split device between the generator and the front wheels; as a reduction gear for the electric motor and, when both work together, as an electronically controlled continuously variable transmission (CVT).

The transmission offers sequential shift which allows maximum power to be delivered on demand and increases engine braking when decelerating.

The NX 300h employs Lexus' electronically controlled braking system known as ECB-R to provide cooperative control of stopping power and regenerative braking while saving on vehicle weight.

### **NX 300h: Driving Dynamics**

Lexus did even more to give the NX 300h a more performance-tuned feel. New HV control software minimizes engine flare during acceleration and increases the sensation of linear acceleration. Engine speed is increased relative to the accelerator pedal angle. The NX 300h adjusts to the target engine speed and to the G force applied to the vehicle, providing a more natural acceleration feeling, without excessive adjustment to the engine speed and gear ratio. And, you can shift yourself with the sequential Shiftmatic feature.

Drivers can optimize fuel economy using Eco or Normal modes in Drive Mode Select, or use Shiftmatic in Sport mode to better enjoy a winding road.

The NX Hybrid has sprung weight damping control to reduce pitching on uneven road surfaces and increase ride comfort and stability. The system controls motor torque and adds power to the opposite direction to help minimize body movement. The rear motor (MGR) helps the starting off performance and stability on slippery roads.

### **Hybrid Batteries**

The hybrid battery pack is split into two modules, each weighing 44 lbs. and located on each side of the rear seat, improving space efficiency and also center of gravity for enhanced car control. The battery pack is one of the lightest among Lexus hybrids.

Package efficiency improvements include downsizing the Power Control Unit (PCU) with a double-sided inverter cooling system. The PCU inverter boosts direct current (DC) voltage from the HV battery and converts it to alternating current (AC) to drive the electric traction motor and, where applicable, the rear-drive E-Four electric motor. It also converts AC from the generator to DC for storage in the hybrid battery.

The PCU also includes a DC-DC converter to provide 12-volt power for vehicle ancillaries, including the lights and audio system. The DC-DC converter saves fuel, because the gasoline engine does not have to drive a separate alternator. The entire 2WD PCU is installed in the engine compartment. In the AWD model, the inverter and DC-DC converter are located at the rear of the vehicle.

### **NVH**

NX 300h's engine mounts are tuned to suppress start-up vibration from the gasoline engine, contributing to ride

comfort. The mounts allow for only one-tenth of the conventional deviation from the engine's normal axis away from its center of gravity – the cause of vibration.

Like other Lexus Hybrids, the NX 300h can be very, very quiet. For example, it uses the electric motor exclusively when reversing. A continuous sound emitted from the vehicle proximity notification speaker mounted near the front bumper alerts pedestrians and cyclists of the approaching vehicle.

## **DRIVING DYNAMICS**

The engineering team's racing experience comes through in the way the 2015 Lexus NX handles curves and bumps. Engineers benchmarked the new Lexus IS to optimize driving dynamics in the NX. The foundation for the vehicle's sublime blend of handling agility and ride comfort is a highly rigid body structure that makes extensive use of hot-stamped high tensile steel along with aluminum.

Construction techniques pioneered in the Lexus IS, particularly body adhesive, laser screw welding and additional spot welds, have been used to strengthen panel joints. A high rigidity urethane sealant introduced in the IS model is used for the NX windshield, effectively making the glass a load-bearing member and increasing resistance to body flex. Aluminum is used on the hood for weight savings.

### **Suspension: Sport + Luxury**

The Lexus NX uses MacPherson strut front suspension with high-rigidity components and low-friction moving parts. A newly designed trailing arm double wishbone rear suspension separates the coil springs and dampers to optimize agility, stability and ride comfort while also providing an unusually low floor for an SUV. Specially reinforced suspension components help to minimize the shake and shudder caused by lateral loads that change the tread width of a tire as the wheel reacts to an undulation.

### **Drive Mode Select**

The Drive Mode Select dial on the center console lets the NX driver tailor the vehicle's responses and driving feel to suit driving conditions or just the driver's mood. The system adjusts parameters for multiple systems, including throttle response and the power steering assist curve.

The default setting is Normal. There is also ECO, for even more fuel-efficient driving, and Sport. The NX 300h has a button adjacent to the dial to select EV mode.

## **DESIGN AND PACKAGING**

From its dramatic spindle grille and L-themed headlights to a body that appears carved from a single chunk of metal, there will be no mistaking the 2015 Lexus NX for anything else in its class. It's a look that conveys the functionality and performance of a premium, compact performance vehicle. The crouching, muscular stance, in part a result of providing good ramp-over angles for light trail driving, is accentuated by having the highest point set back toward the rear of the roof.

### **Exterior**

The concept of making a vehicle look as if it was styled from a single piece of metal is a long-held image in the auto industry. The NX design team took that image to heart. They used the die of the spindle grille as a base over which molten steel was poured to see how the shape would naturally form. The result inspired the NX's angular, integral shape.

The NX's C-pillar is angled and wide to optimize internal storage width. Four golf club bags can be laid longitudinally across the cargo area instead of being wedged diagonally.

A sharply raked tailgate and integrated spoiler are punctuated by Lexus' signature L-shape light clusters featuring seamless LED (light emitting diode) lighting, while the tailgate detailing echoes the spindle grille design.

The eyes may be drawn to the NX, but the wind gets only a glance thanks to a drag co-efficient (Cd) of 0.33 (NX 200t), achieved in part with an array of six underbody aero panels and a roof-mounted spoiler drawn from racing technology.

Lexus designed a new range of 17-inch and optional 18-inch alloy wheels specifically for the NX, with designs that evoke exotic sports cars rather than SUVs.

## **Lighting**

Combining stirring design with pure function, the 2015 Lexus NX makes extensive use of low energy consumption LEDs for front and rear lights. Two types of LED headlights are available. The NX 200t uses LEDs for the low beams and halogen bulbs for the high beams.

Available for NX 200t and standard for NX 300h, the same LED light source provides the high beam and the low beam, yielding uniform light distribution with no chromatic variation. A two-color (black and clear) molding method gives the thick-walled lens a crystal glass appearance even when not illuminated.

The high-grade daytime running lamps (DRLs) create the distinctive L-shape light, and the LED turn signals illuminate sequentially. Adaptive LED fog lights are available for NX 200t and standard for NX 300h. When the turn signals are used, two of the fog light bulbs illuminate automatically to enhance illumination in the turn.

For the LED taillights, thick-wall molding technology gives the outer lens the impression of crystal glass. Reflectors provide side illumination, sourced from the rear-facing LEDs, without the need for additional LEDs.

## **Door Handles**

The look and feel of Lexus luxury detail begins before you enter the NX. A single LED elegantly streams a welcoming beam of light along the top of the handle and also to the ground as the driver approaches the vehicle. Simultaneously, the new RTI illuminates the interior.

The door handles themselves reflect the kind of luxury detail that has distinguished Lexus since its inception. There is no visible key slot, nor is there a gap between the handle and the cover. (The design allows the key to be inserted behind the handle if necessary.) The solid, soft feel and sound of the door closing comes courtesy of a special latch design and specially formulated rubber molding cushions.

## **Multifunctional Mirrors**

The side mirror location enhances forward and side visibility, and a metal garnish reduces sunlight reflection. The mirrors house LED turn signal lights and visual warning lights for the optional Blind Spot Monitor (BSM) with Rear Cross Traffic Alert (RCTA).

## **Exterior Colors**

A dramatic design deserves vivid paint colors. The Lexus NX introduces a new color, Eminent White that, along

with Silver Lining Metallic (first used on the Lexus IS) is one of two Lexus-created colors that yield a metal-like shine. Eminent White is brighter than the brightest conventional white.

This paint technology separates the paint film into two layers, one cosmetic and the other functional. After drying, the functional layer condenses to one-quarter of its previous thickness, compacting its mica particles for strong reflectivity and shading.

The NX is available in nine colors. Five are neutral – Eminent White, Silver Lining Metallic, Nebula Gray Pearl, Atomic Silver, and Obsidian. Three nuance colors include Matador Red Mica, Fire Agate Pearl and Meteor Blue Mica. The Lexus NX 200t F SPORT offers an exclusive color, Ultrasonic Blue Mica.

### **Interior: Sports Car Design, Sport-Utility Function**

Stepping into the Lexus NX will feel like stepping into a sports car. The cabin design combines structural elements with luxurious yet functional materials and textures. The center console is the undeniable focal point, framed by bold silver-colored architectural elements and featuring kneepads on both sides. Leather-wrapped metal over high contrast metallic colors provides visual depth. The NX dashboard and console continue the Lexus concept of display and operational zones.

The seats, inspired by sports car design, coddle driver and passenger as you'd expect from a Lexus.

All-season comfort and viewing pleasure are a given in a Lexus luxury utility vehicle (LUV). The NX offers available heated or heated and ventilated front seats. Standard dual-zone automatic climate control offers an available fuel-saving S-Flow mode that detects a front passenger and directs airflow only to the occupied front seat or seats.

### **Interior Trim: Five Choices**

What happens when you infuse premium packaging with Lexus luxury? The captivating results define the NX cabin, which is offered in five variations.

The Base model, along with the Comfort and Premium packages feature perforated Crème, Flaxen or Black NuLuxe inserts with smooth bolsters and Dark Umber trim. It's a modern look that respects the brand's renown for elegance.

The F SPORT package – the sportiest of the group – exclusively offers perforated Black or Rioja Red NuLuxe, each accentuated by metallic trim. The F SPORT seats feature black accent strips with perforated NuLuxe inserts and smooth bolsters.

Genuine leather in Crème or Black distinguishes the Luxury package, which also trims the cabin exclusively with Linear Mocha Wood. Smooth bolsters accentuate the perforated main part of the seats.

### **Packaging**

The Lexus NX is smartly packaged luxury vehicle that's got plenty of room to carry your passengers and gear – or anything else. For passenger comfort, the couple distance between the front and rear hip points is 37.9 inches, and the high-roof design provides excellent headroom.

Designers carved out maximum space with the design. For example, a luggage area width of 53 inches can accommodate four golf bags stowed sideways, rather than having to lean them against the side. Storage in four



compartments beneath the cargo floor provide space for keeping valuables out of sight.

Instead of the more common pull shade-type cargo area cover, the Lexus NX features a folding tonneau board that eliminates the gaps at each side of the deck trim, leaving a flush surface for an elegant appearance. The removable board can easily be stored under the floor panel.

In the NX, there's a place for everything throughout the cabin, including a large glove box and console box, a console mid-tray, utility box, sunglasses holder, two front and two rear cup holders and front and rear door pockets. The center cup holders are big enough for two large-sized cups and the door pocket bottle holders can each hold a 24-ounce plastic bottle.

### **Power Liftgate and Folding Rear Seats**

Convenience and versatility abound in the Lexus NX, which offers the brand's first optional power folding 60:40 split/recline rear seat. You can lower or raise the seats individually using switches on the instrument panel, on the side of each rear seat and within the luggage compartment. The available power liftgate, which includes memory height, likewise can be operated by switches on the instrument panel, door and wireless remote.

### **Instrument Panel**

The NX driver faces a sculptured metal-faced four-dial gauge cluster with three-dimensional speedometer and tachometer that emphasize intricate dial markings. Spin-processed faces for the main gauges and analog clock create the impression of genuine metal. Gauges in the F SPORT feature full-length illuminated needles.

In the NX 300h, a hybrid system indicator shows power output and regeneration in real time. The hybrid-specific dial changes to a tachometer when the vehicle is in sport mode.

In all models, a 4.2-inch Thin Film Transistor (TFT) LCD in the center of the instrument cluster provides a full-color Multi Information Display (MID). When you change drive modes using the Drive Mode Select switch, illumination in the MID changes color – red for sport mode, for example. The MID can also display phone and audio information.

Switches are grouped for sensible, intuitive use and have a premium tactile feel. Driving-related switches are found on the console, and a panel to the left of the steering wheel contains two rows of switches for other vehicle functions.

### **Touch Switches and RTI**

For the first time on a Lexus, the NX introduces touch switches in the headliner for the front dome lights and map light switches. Make light contact with the light switches, and they illuminate. Footwell lighting adds to the luxury ambience.

If you've used a smartphone or tablet, you'll feel immediately familiar with the new Remote Touch Interface (RTI), which replaces the previous joystick with a touchpad in the center console. An ergonomic palm rest makes it comfortable to use. The RTI lets the driver access various functions while staying focused on the road. For zero-distraction, the front-seat passenger can also easily operate the RTI.

## **ONBOARD TECHNOLOGY**

### **New Lexus Wireless Charging Tray**

The 2015 NX is the first Lexus to offer an available Qi wireless charging tray inside the console box. If you've got a compatible smartphone or other device, just placing it in the tray will recharge its battery. That's one less cable to carry and lose.

### **Premium Audio**

Lexus reset expectations for premium mobile audio decades ago, and the 2015 NX melds that tradition with the needs of today's digital audio formats.

The standard Display Audio includes HD Radio™, Bluetooth® audio, automatic phone book transfer, a vehicle information display and complimentary traffic and weather data provided via HD Radio. If a favorite song comes on the radio while you're busy with something else, like waiting at a bank drive-through, use the cache radio feature to pause it for up to 15-minutes and then listen later.

The standard Lexus Premium Audio system uses an eight-channel amplifier with a Digital Signal Processor (DSP) to restore high notes lost through compression. It plays through eight speakers, or an upgrade system that adds a center dash mid/high speaker and a subwoofer mounted in the liftgate.

### **Multi-Media**

The multi-media system, accessed through a high-resolution seven-inch screen, provides a multitude of capabilities and also offers the Navigation upgrade.

The optional Navigation system can help guide you to your destination more efficiently with up to date and predictive traffic information, including detour preview, ETA calculation and low-fuel coordination with nearby fuel stations. Navigation also includes the subscription-free Lexus Enform App Suite and features 3D and bird's eye map views with 3D building views. The available Navigation also adds a second USB outlet.

Siri® Eyes Free Mode is compatible with the iPhone® 4S and iPhone 5 models forward and puts select Apple's Siri technology at your service. Siri lets you call contacts, select and play music from iTunes®, get turn-by-turn navigation through Siri and Apple maps, and much more.

### **Lexus Enform Helps Keeps You Connected**

Your smartphone gets a whole lot more capable when you step into the Lexus NX. The available Navigation System comes with Lexus Enform service including Lexus Enform Destination (Destination Assist, eDestination) and Lexus Enform App Suite. Lexus Enform provides access to the subscription-free App Suite. These voice-enabled apps let you search the Internet through Bing™, make restaurant reservations using OpenTable®, get movie tickets via MovieTickets.com™, listen to Internet radio, (including Pandora®, iHeartRadio™ and Slacker), search business reviews on Yelp® and check in on Facebook Places™.

Lexus Enform Remote (subscription required), the latest addition to the Lexus Enform family of connected services, allows the owner to remotely view and control certain vehicle features using a mobile app for iOS and Android devices. Key features include remote door lock/unlock; remote stop/start for the engine and climate control; vehicle finder, guest driver monitor and more.

Lexus Enform Safety Connect is the foundation for all Lexus Enform products and includes an Emergency Assistance Button (SOS), Roadside Assistance, Automatic Collision Notification, and Stolen Vehicle Notification.

Lexus Enform Safety Connect, Lexus Enform Remote, and Lexus Enform Destination Services are subscription based and come with one-year trial subscriptions. Lexus Enform Safety Connect is standard on all models, while Lexus Enform Destination Services and Lexus Enform Remote are available on NX models equipped with the optional Navigation system. The Lexus Enform response center operates 24 hours a day, every day.

### **Dynamic Radar Cruise Control**

In addition to maintaining a constant speed, the available Dynamic Radar Cruise Control can also maintain a vehicle-to-vehicle distance. The system's All Speed Following Function can even stop the NX when the vehicle ahead stops at speeds up to 37 mph.

### **SAFETY**

Frontal and side collision protection measures include the use of high tensile steel up to 142,000 psi in key areas, including the center-pillar hinge reinforcement, outer rockers and roof crossmembers. In a collision, energy from a side impact is transmitted to the floor through a structure of cross-members built into the rocker beneath the center B-pillar. The rear impact structure disperses offset collision energy to the main chassis members on both sides of the vehicle.

A comprehensive roof impact-resistance structure disperses load when the roof is impacted, minimizing cabin distortion. The structure includes front pillar reinforcement and high strength steel reinforcements for the center pillar, as well as reinforcement around the seatbelt anchor and front header.

Lexus Whiplash-Injury Lessening front seats are fitted to all models, and the NX has energy-absorbing structures in the pillars and roof headliner. There are impact-absorbing pads in the front and rear door trim adjacent to the occupant's lumbar region.

The Lexus NX models have eight SRS airbags, including a dual stage driver's airbag and knee airbag, dual-stage and dual-chamber front passenger airbag, front side airbags and full-length side curtain airbags, and offer the available Lexus Pre-Collision Safety System (PCS).

Available Lane Departure Alert warns the driver when it determines that the vehicle is about to veer from a traffic lane. A camera mounted to the windshield recognizes lane markings. It sounds a warning and provides a visual representation on the Multi-Information Display screen if the vehicle is veering from its lane. The system works in rain and on roads where the lane is marked on one side only.

Intelligent High-beam uses the same windshield-mounted camera. When the driver turns the high beam on, it will switch to low beam to help prevent blinding other drivers and restore high beam when there are no vehicles ahead are detected. The system can also dim the high beams when it detects bright streetlights. When conditions permit, the high beams will automatically resume.

Pre Collision System (PCS) uses the all-speed Adaptive Cruise Control system's millimeter-wavelength radar sensor to detect vehicles and other obstacles. A buzzer and a light help warn the driver of impending collision. The system can increase the driver's braking effort, and activate Pre-Collision Brake if the driver doesn't apply the brake. The system can also bring the NX to a full stop. Pre-Collision Brake deceleration works from a

maximum speed of 32 mph.

## **NX 200t F SPORT**

The 2015 NX 200t F SPORT looks like it wants to devour the road, with a grille that's even bolder than on the standard model. The L-mesh black grille integrates with a metallic coated lower bumper molding, and black side mirrors match the grille.

Exclusive wheels, cabin styling and trim and bolstered sports seats add to the F SPORT repertoire in the NX.

How much added sportiness you want in the NX 200t F SPORT ride depends on the wheels you choose. A 10-spoke 18-inch alloy design combines black paint on the lateral edges with a luminous machine-brushed finish and features 225/60R18 all-season tires. The second design, with a dark metallic finish and high-gloss Y-shaped spokes, uses lower profile 235/55R18 summer tires.

Body-hugging, quilted NuLuxe seats are exclusive in the F SPORT, which offers an exclusive interior color, Rioja Red. The driver grips a perforated F SPORT steering wheel and brushed metallic gearshift. The unique instrumentation and drilled non-slip aluminum pedals and footrest were inspired by the Lexus LFA supercar. The tachometer red line is even more clearly marked in this model.

The NX 200t F SPORT also features Active Sound Control (ASC) to enhance the auditory experience. The engine note volume resonating through the cabin can be adjusted when then the driver turns on ASC.

### **F SPORT Instrumentation**

Watch how the NX 200t F SPORT is performing in real time with the Lexus-first G-Force meter "G-ball" in the Multi Information Display.

In the NX 200t F SPORT, the G-ball moves in response to the vehicle's lateral and longitudinal forces. The MID displays the peak force in each direction. Display bars indicate the steering angle, throttle opening angle and brake pressure. The MID also provides a turbo-boost display, with the color band changing in the high boost pressure range. There are also analog displays for oil temperature and oil pressure.

###