Global Debut of All-New Lexus LC 500 at the 2016 NAIAS Signals Dawn of a New Era for Lexus

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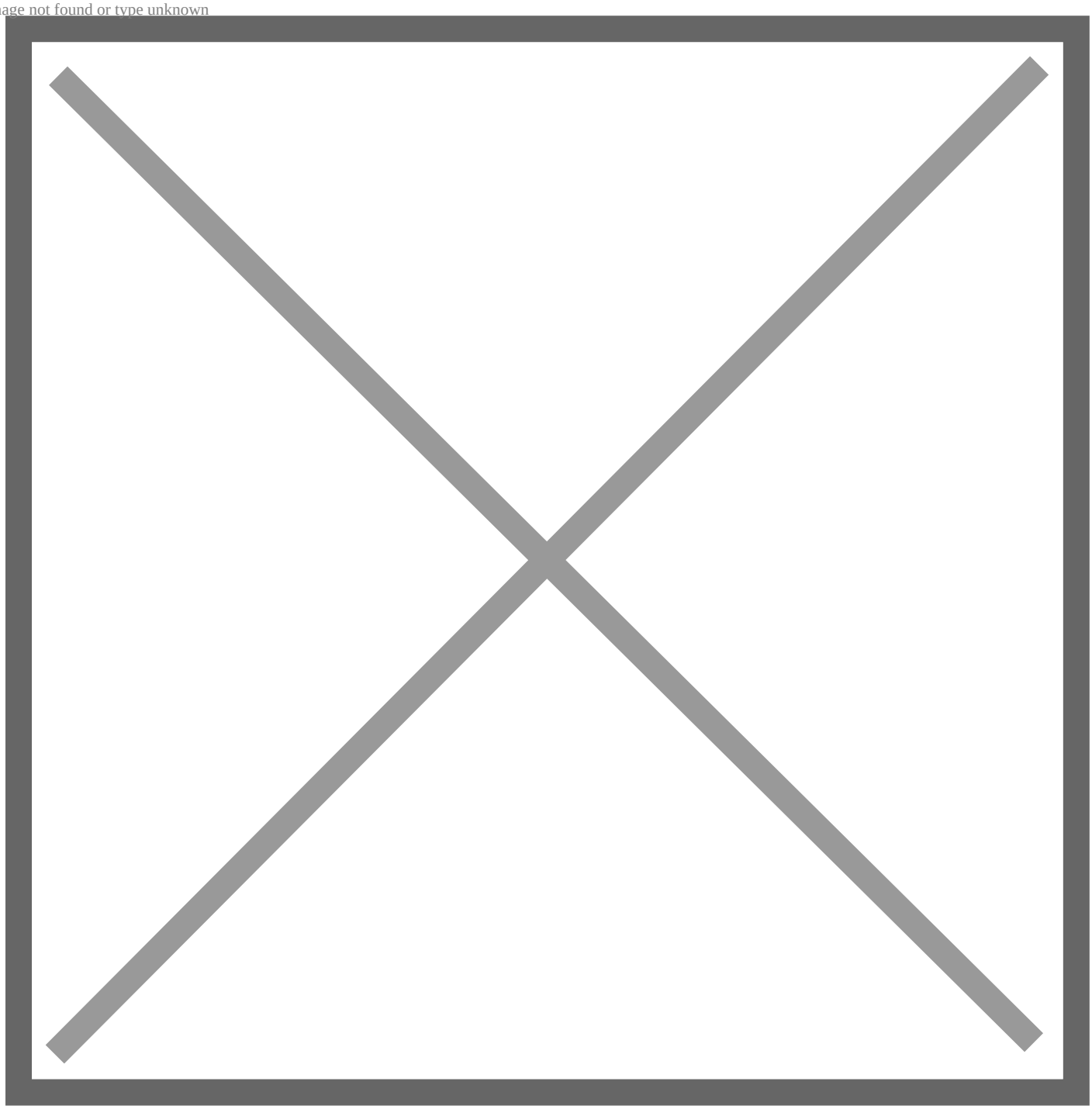

DETROIT (Jan. 11, 2016) — When the Lexus LF-LC Concept debuted at the 2012 North American International Auto Show, the press, loyal customers, and enthusiasts wondered if the concept's arresting styling and dramatic proportions could ever evolve into a production 2+2 coupe. Today, four years after the debut of the breakthrough concept that inspired it, Lexus has revealed the all-new LC 500 luxury coupe. This provocative, athletic flagship coupe makes the strongest statement yet about Lexus' future product direction.

The past five years have seen Lexus evolve rapidly with the creation of the luxury brand's globally-focused organization, Lexus International. Exciting new models involving elevated levels of emotional styling and dynamic driving characteristics such as NX, RC, and IS have also helped Lexus' brand shift with consumers. Akio Toyoda has been at the center of the Lexus global expansion, personally driving a heightened level of collaboration among design, engineering and marketing teams to help build a luxury brand better suited to meet the needs of the next generation of consumers.

"The LC 500 has been an important product for Lexus and me personally," said Akio Toyoda, Chief Branding Officer and Master Driver for Lexus. "A few years ago, we decided to guide the future of the brand with products that had more passion and distinction in the luxury market. This flagship luxury coupe's proportions, stunning design and performance make a strong statement about our brand's emotional direction and will grow the Lexus luxury appeal globally."

Design and Engineering Teams United

Beyond its styling and impactful performance, the new LC 500 serves as a symbol of the achievement that can result from heightened collaboration between design and engineering groups and their commitment to help overcome each other's hurdles. When Akio Toyoda challenged these development groups to produce this special car, it meant surpassing many manufacturing, design, material, and dynamic obstacles that could typically compromise a vehicle's targets or design vision.

The LC 500 was driven by a strong, appealing fundamental design target (LF-LC), and engineering teams worked tirelessly to find new solutions to maintain as much of the concept in the production car as possible. Likewise, vehicle designers were very involved from the earliest stages of the dynamic development process to understand the engineering targets and collaborate with design viewpoints and potential solutions. With LC 500, additional levels of prototype vehicle build also allowed both teams to better study design or engineering ideas and refine key elements. For Lexus, the LC 500 project became much more than simply the development of a new coupe. The LC 500, with the shift in engineering processes and design ideologies it represents, symbolizes the beginning of a new phase for the Lexus brand.

"Design and engineering sides worked together on issues and obstacles that were overcome one by one. I feel we achieved something greater than simply preserving the spirit of the concept's design," said Chief Engineer Koji Sato.

Exterior Design

At first glance, it becomes apparent that the engineering and design team's collaboration was highly successful, considering how much of the LF-LC's design ideology the team was able to transfer into the new LC 500. The new production model shares many of the key design elements, proportions and visual dynamism of the concept car that inspired it. The LC 500's visual appeal is defined by an athletic aerodynamic shape. It features sensual curves, emotional forms, an available flowing carbon-fiber roof (glass roof standard), helping create a low, wide imposing stance that comes together for a highly functional, passionate package.

The LC 500's front fascia features a powerful interpretation of Lexus' distinctive grille, bordered by chrome on three sides and a radical new 3D mesh design that varies its visual tension. The "L"-shaped daytime running lights rest below a new Triple LED headlamp unit, specially designed to include one of the industry's thinnest projectors enabling a low hood with a short front overhang. Functional venting also plays into the LC 500's

exterior design to help improve aerodynamic stability and cooling. The car's athletic profile is characterized by its fast, sloped roofline, its wind-cutting silhouette, a long 2,870 mm (113 inches) wheelbase with compact front 920 mm (36.2 inches) and rear 970 mm (38.2 inches) overhangs and low hood height. The sexy curves and flowing lines maintain a consistent tension in sheetmetal through to the rear end that features slimly designed, multi-layered tail lamps with a unique lighting effect that helps convey a sequential L motif. A rear diffuser and available active rear spoiler also help manage airflow during performance driving. It rides on machined cast aluminum 20-in. or available 21-in. forged aluminum wheels.

Interior Design

The interior design of the LC 500 is influenced by the dynamic luxury theme of the exterior with a layout that is both cockpit-focused and elegant. The coupe's driving position was calibrated to invite spirited, sporting driving, and help develop easier confidence with a more intuitive control layout. In fact, for LC 500, the driver's hip point was engineered to be as close as possible to the vehicle's Cg (Center of gravity) where feedback from the car is the most communicative to the driver. The front seats offer excellent support and comfort for long drives while available sport seats offer additional bolstering and lateral support during cornering. Lexus engineers put considerable effort into creating an engaging yet seductive atmosphere for the driver, focusing on details such as the size and angle of the steering wheel, the feel and positioning of magnesium alloy paddle shifters, and available supple leather and Alcantara seating surfaces. The LC 500's exquisite door panels, center console and dash pad structures feature elements of Lexus' world-renowned, detail-obsessed Takumi craftsmanship in their finish.

"At an early stage, the designers collaborated with the engineers to understand their image for the LC 500's driving dynamics, and they incorporated this into the design," said Tadao Mori, the chief designer of the LC 500. "For example, we gave serious consideration to where the driver's eyes would focus, and designed the surface shape in that area to help support a driver's mindset. This project was one of the first times that designers were closely involved in the dynamic engineering development so we could understand the driving goals and support with the car's design."

Chassis

In helping to drive the future of the Lexus brand, the mission for LC 500 is to offer a dynamic driving experience and character unlike any Lexus vehicle prior to it. The pursuit of a sharper, more refined driving experience became the mission for the development team who also sought to maintain a superior Lexus ride quality befitting a flagship luxury sport coupe.

The LC 500 is the first Lexus to use the brand's all-new, premium rear-wheel-drive luxury platform and is part of the new corporate global architecture for luxury vehicles (GA-L). The underpinnings of this new coupe will become the blueprint for the company's future front-engine/rear-wheel-drive vehicles. In an effort to sharpen the car's handling, the LC 500's engineers focused on the platform's fundamentals by placing most of the mass, including the engine and the occupants, in a position more centralized and lower in the chassis to improve the center of gravity.

Internally, Lexus engineers referred to this menu of mass-arranging tactics as the "inertia spec." The driver hip and heel points have been lowered, wheels have been pushed to the corners of the car with shortened overhangs, and the drivetrain mass has been located behind the front axle line to create a front mid-ship layout. The LC 500 also relies on run-flat tires to improve packaging, reduce weight (thanks to no spare), and help shorten overhangs to achieve dynamic targets. The 12-volt battery has been relocated to the trunk as part of the mission to redistribute weight.

Other mass management measures include the available carbon fiber roof, aluminum door skins mounted to the carbon fiber door inner structure, and a composite trunk floor. The LC 500 also represents the Lexus brand's

most intensive use of high-strength steel. This provides enhanced rigidity while reducing—and ideally positioning—vehicle mass to optimize dynamics. As a result, the LC 500 is very balanced with a nearly ideal front/rear weight distribution of 52/48.

To help achieve the level of chassis performance targeted for this new coupe, Lexus engineered the stiffest unibody the brand has ever produced. For LC 500, the strategic use of lightweight, high-strength steel helps make for a high degree of torsional rigidity that is more resistant to twisting forces than the exotic, carbon fiber-intensive LFA supercar. The platform design maintains a consistent level of resistance to flexural forces and stiffness across the vehicle's wheelbase to help create consistent, predictable handling behavior and sharper steering responses. Special braces in the engine compartment (usually a more twist-prone part of the chassis), the adoption of stiff aluminum front suspension towers, and the addition of a ring structure near the rear fenders are all measures that help further bolster the strength of key chassis structures.

Particular attention was devoted to the LC 500's multilink suspension system. Double ball joints on the upper and lower control arms allow for control of the smallest movements from the driver inputs and road conditions. Beyond sharing workload, a dual ball joint arrangement helps optimize suspension geometry to increase wheel control and create a more precise steering response with better initial effort. To help reduce unsprung mass and improve suspension response, all but one of the control arms are made of lightweight forged aluminum. Providing the grip on the show prototype car are concept versions of Michelin Pilot Sport tires with Premium Touch® sidewall technology: 245/40RF21 up front and 275/35RF21 at the rear. When all the handling elements come together, LC 500 becomes a world-class luxury sports coupe that exhibits razor-sharp reflexes, exceptional handling balance and rock-solid stability. This all-new platform will continue to undergo continuous improvement and enhancement throughout the vehicle's lifecycle.

Said Sato: "We spent more than triple the usual amount of R&D time to pursue linear steering and to find the sweet spot for road contact feel. We also focused our efforts on suspension rigidity and enhancing geometry. Thanks to advancements in product engineering, we are now at a world-class level for suspension rigidity, and performance when lateral g's are applied."

Drivetrain

The power delivery to the rear wheels for LC 500 is handled by a new, very well matched set of components that maximize output to the wheels. The heart of the new LC 500 is derived from the proven, high-revving 5.0-liter V8 that is found in the RC F and GS F. The naturally aspirated V8 was selected for its smooth, linear throttle response and emotional engine sound. The all-aluminum, 32-valve V8's output targets 467 HP and 389 lb.-ft. of torque. The new engine is built for durability with lightweight, high-strength forged connecting rods and titanium valves that allow the engine to flourish at high rpm. This naturally aspirated engine makes an ideal pairing to a balanced sports coupe with its linear power delivery that allows easier control and exhilaration behind the wheel.

The engine in the LC 500 uses a dual intake inlet that help improve breathing and allow the engine to produce its fantastic sound. The new coupe features an active exhaust that opens baffles in Sport mode to help give the car a more aggressive exhaust note even in start-up. In fact, even when the vehicle is in Normal mode the exhaust baffles open above 3500 rpm. During acceleration, a Sound Generator involving tuned acoustic plumbing enhances the engine's raucous melody into an aural thunder that helps distinguish the LC 500 in its competitive segment.

Helping power transfer to the rear wheels is a newly developed 10-speed automatic transmission—the first ever in a luxury automobile—with shift times rivaling those of a dual-clutch transmission. The component is smaller and lighter than some current 8-speed transmissions. The wide bandwidth of shifting afforded by 10 closely spaced gears is ideal for all forms of driving, providing an optimal gear in all conditions. This transmission is

matched to a new electric control system with software that helps anticipate the driver's inputs by monitoring acceleration, braking and lateral g forces.

The new transmission is just one key element in a vehicle that has had all of its dynamic control elements such as power application, braking, and steering tuned to operate rhythmically in sport driving conditions. Drivers will feel the controlled balance between the quick, smooth shifting actions, the application of linear engine power, and the deceleration afforded by 6-piston front brake calipers (4-piston at rear).

All of the platform and drivetrain engineering helped endow the LC 500 with performance and agility uncommon for a four-person coupe; the vehicle targets a 0 to 60 mph time of less than 4.5 seconds.

Interior Electronics
This flagship coupe will debut the 2017 Lexus Multimedia package that will feature updated, faster, more flexible software enabling future enhancements and a more inviting graphic user interface. Occupants also will be treated to an exceptional audio experience inside the cabin: in addition to the available audiophile-worthy Mark Levinson audio package, a new premium Pioneer audio system comes as standard equipment. Pioneer's sound engineers worked in collaboration with LC 500 body and cabin designers to enhance interior sound performance within the cabin, studying the acoustic environment and driving structural changes to enhance sound performance.

The LC 500 also will boast Lexus' renowned safety technology, Lexus Safety System + , which integrates several of Lexus's active safety technologies: an All-speed Dynamic Radar Cruise Control (All-speed DRCC) that relieves stop-and-go traffic stress, the Pre-Collision System (PCS) helps prevent and mitigate collisions; Lane Keep Assist (LKA) helps prevent vehicles from departing from their lanes; and Automatic High Beam (AHB) that helps ensure optimal forward visibility during nighttime driving.

These technologies are part of a multi-faceted approach to active safety, the Lexus Safety System + package, and combines millimeter-wave radar with a camera to help achieve a high level of system reliability and performance.

*Spec and equipment might differ by market

Specifications

	LC 500
Horsepower	467 HP@7,100 (redline 7,300 rpm)
Torque	389 lb-ft@4,800
Transmission	10 speed Automatic
Seating Capacity	4
Overall Length	4,760 mm (187.4 inches)
Width	1,920 mm (75.6 inches)
Height	1,345 mm (53 inches)
Wheelbase	2,870 mm (113 inches)
Layout	Front engine, Rear Wheel Drive
Fr/Rr Overhang	Fr: 920 mm (36.2 inches), Rr: 970 mm (38.2 inches)

Wheel size (front and rear)	1. 21 inches (forged aluminum – available) 2. 20 inches (forged aluminum – available) 3. 20 inches (cast aluminum – standard)
Tires size	1. Fr: 245/40 RF21, Rr: 275/35RF 21 2. Fr: 245/45 RF20, Rr: 275/40RF 20 3. Fr: 245/45 RF20, Rr:275/40 RF20
0 – 60 mph	Under 4.5 seconds