# REACHING MILESTONES

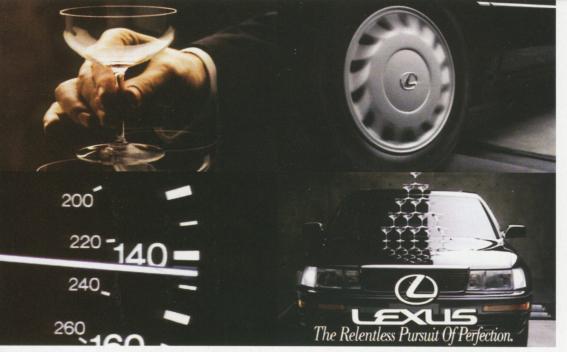
1989 LS 400





FROM A SEDAN THAT RAN WITH CHAMPAGNE GLASSES ON ITS HOOD TO ANOTHER THAT'S EQUIPPED WITH TWENTY-FIRST-CENTURY HYBRID TECHNOLOGY, LEXUS COMES FULL CIRCLE—AND KEEPS GOING. BY PETER MCSEAN





THE TV NETWORKS DIDN'T THINK IT was possible. Stack 15 champagne glasses in a pyramid on the hood of a car as it accelerates on a dynamometer. Then, as the speedometer hits 145 mph, pour champagne into the top glass until it cascades elegantly into the 14 below it. No way, surely.

Yet, as independent observers confirmed to television moguls in 1989, it's possible with the right car: the Lexus LS 400. Not only did the pyramid remain undisturbed at 145 mph, but not a drop of champagne was spilled. It was a remarkable feat. The networks were taken aback, and so were viewers when the footage appeared in the first Lexus TV advertisement.

Back then, few people knew about a Lexus engine's smooth refinement—few knew much about Lexus at all—but that award-winning ad filled in a lot of blanks. Lexus, it said, was about "The Relentless Pursuit of Perfection" and it was a graphic illustration of what this meant. The automotive landscape had changed.

In 2007, it has changed again with the latest iteration of the LS. Times, and Lexus, may have moved on but the engineering shines as brightly as ever. One of today's ads shows an LS 460 parallel parking between two pyramids built from more than 1,200 champagne glasses (a nod to that original TV spot). The eye-opener is that the LS 460 parks perfectly well—thanks to the Advanced Parking Guidance System—with the driver controlling only the brakes.

Intelligent use of advanced technology is a Lexus hallmark—always has been—and the newest LS family has introduced several breakthrough technologies (see "A Stream of Breakthroughs,"

page 43). They also build on the company's pioneering Hybrid Drive system to create a full hybrid V8 powertrain. Result: the LS 600h L delivers the efficiency of a typical V8 engine with the performance of a powerful V12.

Conflicting demands were also part of the brief for the original LS 400. Chief Engineer Ichiro Suzuki decreed at the outset that it should be capable of 155 mph, achieve 22.5 mpg, and have an aerodynamic drag coefficient of less than 0.30. Each individual target was unprecedented for a luxury sedan. Collectively, said his colleagues, they'd be impossible. But 1,400 engineers, 450 prototypes, and 2.7 million test miles later, they proved it was possible.

It had been a long, meticulous process getting there. The decision to make the best luxury sedan in the world was made back in August 1983 by Toyota Chairman Eiji Toyoda, after concerted lobbying by Yukiyasu Togo, the president and chief executive of the company's United States arm.

The luxury sedan project, known internally as Circle F, honed every detail of the car's development with passionate, unstinting dedication. To better measure air flow around the vehicle, microphones were placed in its body during the extensive wind tunnel testing. Prototypes were left in the desert, along with rival cars, for months on end with their windows open, to gauge and improve their longevity. Even the high-end Nakamichi audio system's speakers were tuned differently, depending on whether the car had cloth or leather trim.

A 1,200-acre test facility was built on the Japanese island of Hokkaido, with 26 kilometers of track to replicate every type of surface the

LS would encounter. Twenty designers and engineers visited America to study how potential owners lived and used their luxury cars. New assembly methods were developed at the Tahara plant, one of the most advanced production facilities in the world. By the time the car went on sale in 1989, it represented an investment of more than \$1 billion.

It also represented a new brand. Lexus—the name was derived from Alexis, one of 219 suggestions put forward by image consultants Lippincott & Margulies—had arrived. But Lexus wasn't just about the LS 400 and the smaller ES 250 executive sedan, which was launched at the same time. It was also about providing unrivalled customer service. The Lexus Covenant, drawn up by Lexus General Manager Dave Illingworth, said, "Lexus will have the finest dealer network in the industry. Lexus will treat each customer as we would a guest in our home."

So it proved. The level of customer service and satisfaction revolutionized the industry. When 8,000 LS 400s had to be recalled four months after the vehicle's launch—potentially disastrous for a new brand—Lexus pulled out all the stops. Owners were phoned personally. Engineers flew over from Japan and technicians hit the road, carrying out the recall at dealerships and even owners' homes and offices. Each car was washed and fueled before being returned. Remarkably, the majority of the 8,000-car recall was completed within 20 days. It was a defining moment. From then on, everyone knew what

The original advertising campaign for Lexus (top) and the man who led the LS 400 project, Chief Engineer Ichiro Suzuki



# LS 400 TO LEXUS HYBRID DRIVE

In just over two decades, Lexus vehicles have leapt off their drawing boards to become synonymous with superior quality. A few highlights along the way, along with other noteworthy milestones in performance, innovation, and breakthrough thinking:



First of 450 LS 400 prototypes is built.

First test drive of LS 400 at Hokkaido facility.

Kodak scientists invent the world's first megapixel sensor, a watershed in the development of the digital camera.

LS 400 name chosen. Design for Lexus dealerships finalized.

Florence Griffith Joyner, aka Flo-Jo, shatters the world record in the 100 meters at the Olympic trials with a time of 10.49 seconds, before securing gold in the 200 with a world-record 21.34 (both records still stand).

Toyota Chairman Eiji Toyoda gives the go-ahead for Circle F. the project that would create the LS 400.



Final design of LS 400 approved.

Tennis great Martina Navratilova wins Wimbledon-for the sixth consecutive year.



THE LEVEL OF CUSTOMER SERVICE AND SATISFACTION REVOLUTIONIZED THE INDUSTRY.



1989

LS 400 world debut in January, U.S. sales start in September.

The Berlin Wall falls, triggering the end of the Cold War and symbolizing the collapse of communism.

1990

LS 400 goes on sale in Europe, Canada, Australia, and the Middle East.



1991

SC 400 sport coupe launched in United States. Lexus becomes the United States' top-selling luxury import.





1º LEXUS

1992

An updated LS 400 debuts with more than 50 enhancements, many suggested by vehicle owners.

The first text message is sent from a PC to a mobile phone. 1993

GS 300 sedan unveiled at Detroit show and goes on sale in the United States and Europe.

1994

Second-generation LS 400 launched.

The Rolling Stones become the first major band to broadcast a live performance over the Internet, using Mbone, a virtual network of servers which sits on top of the Internet, to transmit 25 minutes from a concert in Dallas.





# 1996

FLV concept vehicle, a luxury utility vehicle, appears at Tokyo and Detroit shows.

DVD video is introduced, transforming the music, game, and computer industries.

#### 1997

GS 300 launched in Australia. All-new GS 300 and revised LS 400 launched.

# 1998

RX 300 goes on sale in the United States. For a few months, and for the first time, Lexus becomes the top-selling luxury brand in the United States.



# 2001

SC 430 unveiled at Detroit auto show. IS 300 SportCross launched.

Music on the move: Apple introduces i Tunes (January) and the iPod (October), triggering a global phenomenon.

# 1999

Lexus sells its 1 millionth car in North America.

Amazon's Jeff Bezos named *Time* magazine's Man of the Year, simultaneously becoming the father of online shopping. Online retailers end the year with a 50 percent increase over 1998 in holiday sales.

#### 2000

New LS 430 and RX 300 go on sale in Europe. IS 300 launched.

Napster is launched by 19-year-old Shaun Fanning from his uncle's garage, providing free music to an estimated 100 million users.



#### 2002

Lexus builds futuristic car for Minority Report, directed by Lexus owner Steven Spielberg. Team Lexus wins America's prestigious Grand Am Cup track racing series.

#### $20\overline{03}$

All-new RX 300 goes on sale in Europe. New LS 430 launched. Lexus Development Center set up to focus exclusively on future Lexus models.

# 2004

World debut of new GS and RX 400h at Detroit auto show. Lexus enters market in China.

#### 2005

Lexus launches in Japan and Russia. IS 350 unveiled at New York auto show, along with the LF-A supercar concept vehicle.

YouTube is created, instigating streamed content sharing on a mass scale.

#### 2006

LS 460 unveiled at Detroit show. RX 350 replaces RX 330.
LS 600h L introduced at New York show.
GS 450h hybrid launched.

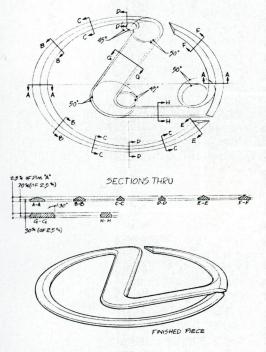
# 2007

IS F unveiled at
Detroit auto show.
LS 460 named World
Car of the Year.
LS 600h L launched.



# oosite page: Punchstock (dvds); Getty Images (Bezos, satellite transmitter); Rex Features (Napster); Alamy (Youtube, iPod)

#### THE LS WAS ABOUT TO TAKE ON ITS MAIN RIVALS IN THEIR OWN BACKYARD.



The Lexus logo's original blueprint,

which spells out the design's

requisite mathematical precision

Lexus stood for. You weren't just buying an extraordinary luxury vehicle; you were entering a world of extraordinary service, too.

In 1989, only those in the U.S. could enjoy the Lexus experience, but the following year the circle widened to Canada, Australia, the Middle East, and Europe. The move to Europe was significant because the LS was about to take on its main rivals in their own backyard. Lexus could not afford to fail here. Nor did it. The LS introduced Lexus' unique refinement, comfort, and performance—and its revolutionary approach to customer care. When Europe's second Lexus model arrived, the Giugiaro-designed GS 300 sedan of 1993, sales in the region reflected the brand's growing reputation.

Outside of Europe, the Lexus lineup was also growing and the flow of new models included the elegant SC 400 sport coupe, LX luxury utility vehicle, and the world's first luxury "crossover" SUV, the RX. By the end of 2001, the convertible coupe SC 430, IS sedan, and IS SportCross hatchback had joined the global lineup, followed by the GX a year later.

Global was the word. Lexus had become a world-renowned brand and even entered the popular lexicon: "the Lexus of..." came to mean "the very best." You can see why. In America alone, Lexus has so far won hundreds of awards. But in the pursuit of perfection, the desire to do better remains compelling. So in 2003, the Lexus Development Center was set up in Japan to concentrate on planning future models. A

new design philosophy emerged: L-finesse. It is based on three essential principles drawn from Japanese culture—incisive simplicity, intriguing elegance, and seamless anticipation. The results were visible in the new GS, new IS, and, most notably, the pioneering Lexus Hybrid Drive system that made its debut on the RX 400h.

With hybrid technology taking Lexus into a new era, it was fitting that, in the summer of 2005, Lexus made another big change by launching its vehicles in Japan, where it all started. Today, Lexus is represented in more than 45 countries spread across the globe.

The brand's growth is set to continue. Earlier this year, the F high-performance designation was announced, with the launch of the IS F sport sedan and an updated LF-A supercar concept vehicle. And just as the 2001 Lexus LS 430 was judged by independent testing firm AMCI as the best luxury sedan in America, so Lexus will continue to make what is perhaps the world's finest car. A panel of international journalists has named the all-new LS 460—the latest LS to embody the L-finesse philosophy—as World Car of the Year 2007. But to Lexus, as good as the LS 460 is, it still can be *more* perfect. For Lexus, that pursuit continues.



WHAT'S YOUR LEXUS
CULTURAL IQ?:
Take the Lexus Trivia Challenge at
www.lexus.com/magazine.

# A STREAM OF BREAKTHROUGHS

Innovation is an integral part of the Lexus story. At the outset, in 1989, the LS 400 changed the automotive world, with its unparalleled refinement, performance, comfort, luxury, and build quality. The care Lexus and its dealers showed owners also revolutionized the industry. Even the original dealerships, designed by Calty's Jim Sherburne, pioneered a look and feel that has since been adopted across the sector.

Technical innovations figure large, too. Take Lexus Hybrid Drive, the fruition of 15 years' intensive research that has so far led to three breakthrough Lexus models. The first was the RX 400h, which draws on two powerful electric motors and a 3.3-liter V6 engine to deliver compelling responsiveness and impressive fuel efficiency. The GS 450h, launched in 2006, harnesses Lexus Hybrid Drive—a 3.5-liter V6 and a high-output electric motor—to provide the performance of a V8 with the economy of a 2.0-liter gas engine. The latest Lexus model to embrace this technology is the all-wheel-drive LS 600h L, which features a full hybrid V8 powertrain. All of this is part of Lexus' commitment to innovation, as are the company's other advanced developments:

- > **Eight-speed automatic transmission**, the world's first, for smooth performance and improved fuel economy
- Advanced Pre-Collision System (APCS) to help reduce damage by activating safety features in the instant before an impact
- Driver Monitoring System, which sounds a warning and primes safety systems if the driver's head turns to the side when an obstacle is detected ahead
- Vehicle Dynamics Integrated Management (VDIM) to help drivers avoid skids when cornering
- > Twin Chamber Passenger Side Airbag, a breakthrough in airbag technology that deploys with a slight center depression for better cushioning
- Advanced Parking Guidance System (APGS), which practically parallel parks, and back-in parks, the vehicle for the driver
- Kinetic Dynamic Suspension System, the first of its kind on a production vehicle, regulates the stabilizer bar so wheels respond individually to terrain
- VVT-iE electric camshaft activation for improved engine efficiency over a wider range of revs