

LEXUS LY 650 PRESS KIT

Introduction

Lexus has a global reputation for innovation and transformation. As a market disruptor, it has changed what luxury means in the automotive market with its hand-crafted and technologically advanced cars.

After three decades of creating world-class vehicles, it is now venturing beyond the road. With the help of its partner Marquis Yachts, it is realising its vision for a luxury maritime lifestyle. The Lexus design ethos and aesthetic have been interpreted by highly skilled craftspeople to create the LY 650, a highly capable luxury yacht that delivers on the *Experience Amazing* promise.

The Lexus LY 650 by Marquis Yachts

Created with the expertise of Marquis Yachts, the LY 650 is a flagship model, just like the Lexus LS saloon. It draws on a wealth of boat-building knowledge and experience, and pushes and boundaries of innovation and execution.

The LY 650 shares four stand-out qualities with Lexus's flagship road vehicles.

- Design inspired by Lexus L-finesse
- Expert-level *takumi* craftsmanship
- Performance derived from advanced materials
- Interactive technology

Unique qualities of the LY 650

- The first and only production-specification, brand-inspired yacht
- Exterior and interior styling heavily influenced by Lexus's L-finesse design philosophy
- Built by Marquis Yachts using processes modelled on the Toyota Production System, *takumi*-like assembly and *kaizen* continuous improvement
- One of the first applications of carbon fibre for a yacht's architecture and advanced materials to reduce weight and improve performance
 - 85 per cent of the hydrodynamic hull is made from lightweight, advanced composite material
 - The helm console and bridge are made of carbon fibre-reinforced plastic

BRAVE DESIGN

Influenced by L-finesse

The organic shapes and forms found in nature have always provided inspiration for designers. The flow of air and water have influenced the sculpted lines of Lexus's cars, translated by L-finesse, the keystone of the company's design ethos.

The LY 650 supercharges this influence, not least because of its fundamental relationship with the water. The marine environment is characterised by its energy and constant flow, and its rich natural qualities, including water, climate, fauna and flora. Each styling nuance of the LY 650 radiates and amplifies the energy of the ocean. The collaboration between Lexus and Marquis Yachts' designers has produced superior aesthetic and functional qualities that reminiscent of Lexus's flagship cars.

A striking presence

The LY 650 has a low, slim silhouette and a wide, commanding stance emanating from a distinctive, polished stainless steel chafe plate that captures the vessel's essential dynamism.

Irrespective of the viewing angle, the LY 650 has a powerful presence. The designers applied the L-finesse principles of Seamless Anticipation, Incisive Simplicity and Intriguing Elegance to the yacht's curvaceous lines, inside and out. By avoiding sharp angles and junctions, they have been able to express speed, elegance and meticulous craftsmanship.

Automotive styling references

The multifaceted carbon fibre hull expresses forward and rearward-sweeping motions, like the effect created by the styling of Lexus's LC and LS flagship coupe and salon, and iconic LFA supercar.

Air intakes, shaped with the same "L" motif as the cars' daytime running lights, are located below and aft of the arched stern cockpit and cabin, and clearly broadcast the LY 650's energy and dynamic capability. The visual sense of movement is further amplified by the distinct profile lines of the upper deck.

Below the side windows in the hull, meticulously sculpted bevels create a ridge that is aesthetically clean, yet also beneficial to the yacht's hydrodynamics.

Common design pillars

Both marine and road-going flagships have undeniable resemblances, from bow to stern or nose to tail. Both have swooping canopies that originate at the intersection of the bonnet and

A-pillar/bow cockpit, and raked windscreens that are both stylish and functional in their design.

Passengers in yacht and car can enjoy the highest quality entertainment from Mark Levinson Surround Sound systems. In the LY 650 a 7.1 system is available for the salon and a 5.1 system for the master stateroom.

Interior appointments

Organisation of space, quality materials, choice of convenience and comfort features and consideration of the way people will interact with their surroundings are all crucial factors in determining the character and ambience of a Lexus flagship.

To ensure the LY 650's appointments are equal to its expressive looks, Marquis Yachts partnered with the celebrated Italian nautical design house Nuvolari Lenard to create an ambience that captures Lexus's core principle of *omotenashi* – the best traditions of Japanese hospitality – applying L-finesse design cues and *takumi* craftsmanship.

Curved shapes and soft-touch materials are used throughout the salon, staterooms, cockpit and the low-profile flybridge with its carbon fibre hardtop. The configuration of the hand-laid cushioning, stitchwork, lighting fixtures and windows is dictated by a sense of movement to elicit a welcoming and comforting experience on board.

EXHILARATING PERFORMANCE

Power, poise and control

The LY 650's twin Volvo Penta IPS™ engines are available with outputs (each) of 1,350, 1,200 or 1,050hp, capable of taking the 39.9-tonne craft to a maximum speed of 31.4 knots.

Technologies such as the hydrodynamic carbon fibre hull, which features a seamless union of cruiser and offshore fishing vessel-type architectures, and optional active stabilisers enable the LY 650 to move through the ocean quickly and with steadfast directional control, a composed ride, efficient water displacement and impressive speed.

Weight-saving, strength and balance

Targeting weight-saving and increased rigidity, Marquis Yachts' engineers made extensive use of carbon fibre in the construction of the LY650's bespoke hull. In fact, the material accounts of 85 per cent of the total.

As a result, overall rigidity is 20 per cent greater than comparable vessels with a standard material construction, while weight is 30 per cent lower. The yacht's centre of gravity – key to its excellent handling – is kept low and its overall balance is near-perfect.

The use of carbon fibre, together with sound-insulating materials and sound-absorbing paints, also keeps noise and vibration to a minimum.

Outline specifications

Overall length (m)	19.94
Beam (m)	5.69
Draft (m)	1.37
Weight (kg)	39,916
Standard max. power (hp)	1,800
Max. speed (kn)	31.4
Staterooms	3
Heads	3
Main cabin headroom (m)	1.98
Lower cabin headroom (m)	2.03

TAKUMI CRAFTSMANSHIP

Quality first

Lexus believes in the value of the master craftsmanship of its famous *takumi* artisans, who gain their skills and knowhow through decades of apprenticeship, study and practice.

Marquis yachts places the same emphasis on high quality and continuous improvement. It has developed special manufacturing processes and created a bespoke workshop in order to deliver the best possible final product.

Each individual in Marquis Yachts' hugely experienced team of 33 craftspeople at its base in Pulaski, Wisconsin, is dedicated to the hand-assembly of the LY 650, ensuring every bolt, stitch and weld meets the exacting LY standards.

Production efficiency

Production teams from Lexus and Marquis Yachts joined forces to develop specific assembly concepts, methods and workflows for the LY 650. These have been largely derived from the world-famous Toyota Production System, a touchstone for efficient processes and designed-in quality.

Manufacturing firsts

Production of the new LY 650 has brought about many manufacturing firsts for Marquis Yachts.

- The use of multi-dimensional digital modelling to create moulds for the production of one-off parts
- The use of carbon fibre and associated resin material in the LY 650's deck and components
- Bespoke stainless steel metalwork, based on Lexus-inspired shapes
- Carpentry, cabinetwork and veneering with seamless curves and no 90-degree angles
- Use of all-new materials, such as eucalyptus wood, with LY 650-specific shapes and stitching patterns

Co-operation between Lexus and Marquis Yachts has yielded benefits in manufacturing quality and efficiency. Output has risen by more than 200 per cent from 0.8 to 1.8 boats per day. Procedural efficiency has risen to up to 94 per cent (an increase of up to 71 per cent, according to process). A Sustainable Marquis Yachts Production System has been established that can be applied to other proprietary yacht models.

AVANT-GARDE TECHNOLOGY

LY-Link mobile application

Just as when travelling in an LS or LC car, LY 650 owners and crew can keep up-to-date on their vessel's key performance data via mobile devices. LY-Link is a mobile application that gives real-time sight of values such as voltage and fuel and water levels. It can also inform users of any abnormalities, as well as maintenance schedules and recommended actions.

The app can also be used to control the LY 650's lighting, audio and climate control – another example of Lexus *omotenashi* at work.