JET SKI with Naturally Aspirated Engines: ULTRA 160LX and ULTRA 160LX-S



Categories with high functionality and enhanced equipment are expanding in the personal watercraft market. We developed the ULTRA 160LX and ULTRA 160LX-S—JET SKI equipped with a naturally aspirated engine and featuring unprecedented innovative style, equipment, and functions in 2023 and launched them across the world. These models have been well received in the market thanks to their new equipment and high functionality that surpasses what competitors offer. Benefits include the bow structure that guides water flow to the right and left for a drier ride and the motor-driven jet that directs the jet blast forward and backward.

Introduction

The runabout type that can be operated while seated is the leading product in the personal watercraft (PWC) market because it is stable and easy to ride, making it ideal for recreational purposes like towing wakeboards and the like. As the number of models with high functionality and upgraded equipment have exploded in this category, each manufacturer also has rapidly updated their model lineups.

1 Background

We also launched the ULTRA 310LX, ULTRA 310LX-S, and ULTRA 310X—high-performance supercharged engines with new innovative equipment and functions—as the 2022 models, which received high praise from the market.

In addition, we developed the ULTRA 160LX and ULTRA 160LX-S equipped with a naturally aspirated engine, which is in high demand in the market, to boost our model lineup in this category.

2 Specifications

The ULTRA 160LX and ULTRA 160LX-S are equipped with a naturally aspirated 1,498-cm³ environment-responsive, four-stroke/four-cylinder engine high in power,

which is used in our runabout type STX 160. For the hull, the jet pump is optimized based on the ULTRA 310LX. **Table 1** lays out the main specifications of the ULTRA 160LX and ULTRA 160LX-S. These models boast new functions and equipment, including our proprietary technologies as shown in **Table 2**.

3 Features

We incorporated our proprietary style, functions, and equipment to satisfy market needs in this category.

(1) Innovative design

The ULTRA 160LX and ULTRA 160LX-S showcase a dynamic, shapely style. LED accent lights are placed on the front for the first time in PWCs to achieve a sharp look. The newly designed bumper and front hatch lid guide the water flow splashed on the bow during piloting to the right and left as shown in **Fig. 1**. This reduces the amount of water splashing over the rider and improves comfort.

(2) Kawasaki Smart Reverse with Deceleration (KSRD)

PWCs move backward by directing the jet blast released behind to the front using the reversing bucket. Although in the past the bucket was moved with manual levers, we have developed the proprietary Kawasaki Smart Reverse with Deceleration (KSRD) as a motor-driven mechanism as shown in **Fig. 2**.

Table 1 Principal specifications

Item		
Overall length [mm]		3, 580
Overall width [mm]		1, 195
Overall height [mm]	ULTRA 160LX	1, 240
	ULTRA 160LX-S	1, 180
Fuel capacity [liters]		80
Engine type		Four-stroke/Four-cylinder
Bore × Stroke [mm]		83×69. 2
Displacement [cm³]		1, 498
Max. power [kW]		112 / 7, 500 min ⁻¹
Max. torque [N · m]		144 / 5, 750 min ⁻¹

Table 2 Comparison of features

	ULTRA 160LX	ULTRA 160LX-S
Kawasaki Smart Reverse with Deceleration (KSRD)	•	•
7 " full-color TFT instrumentation	•	•
Adjustable LXury seat	•	-
Sport seat	-	•
Easy side-access storage	•	•
Cleat	•	•
Multi-mount system	•	•
Cup holder	•	•
Extended platform	•	•
Rearview camera	•	•
LED accent light	•	•
Meter visor	•	-
JETSOUND 4 s audio system	•	-

A red circle indicates our proprietary function or equipment.

The KSRD is operated with a thumb lever integrated with the throttle lever, which enables switching between forward and backward movement with just one hand. This makes it easy to slow down and move backward when piloting and on arrival at the shore, dramatically improving operability. This system also includes the following functions.

· Neutral mode: In the past, PWCs moved forward

- even when idling. To solve this problem, we optimized the bucket position to keep the thrust at zero, making it possible to stay in a fixed position.
- Reverse assist mode: If the reverse thrust is insufficient, you may not be able to lower the PWC from the trailer into the water. To solve this problem, we made it possible to temporarily increase the engine thrust.



Fig. 1 Water flow along bow



Fig. 2 Image of KSRD system

(3) 7-inch full-color TFT instrumentation and JETSOUND 4s audio system

The ULTRA 160LX and ULTRA 160LX-S have instrumentation equipped with a large 7-inch TFT screen. They also come equipped with GPS as standard to display the direction and distance to the registered destination. In

addition, the ULTRA 160LX has the JETSOUND 4s audio system, so users can enjoy their favorite music while zipping across the water. All these functions add up to enable users to indulge in comfortable cruises and fun rides that were impossible until now.



Fig. 3 Image of ULTRA 160LX-S Angler

Conclusion

The ULTRA 160LX and ULTRA 160LX-S were launched across the world in 2023 and have been well received in each market. On top of these, we released the ULTRA

160LX-S ANGLER with equipment specially designed for fishing (**Fig. 3**) at various trade shows, to high acclaim.

We will continue to enhance the model lineup and develop products the market wants.

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