



SURFACE VEHICLE STANDARD	J2882™	DEC2023
	Issued	2022-09
	Revised	2023-12
Superseding J2882 SEP2022		
Maximum Speed of Personal Watercraft		

RATIONALE

A performance requirement (i.e., ≤ 65 mph +2 mph) was added to this document that is aligned with the “1999 agreement between personal watercraft OEMs and USCG.” Also, this document was converted from an SAE Recommended Practice to an SAE Standard.

1. SCOPE

This SAE Standard establishes a uniform test procedure and performance requirement for limiting the maximum speed of a personal watercraft.

2. REFERENCES

There are no referenced publications specified herein.

3. DEFINITIONS

3.1 PERSONAL WATERCRAFT

A watercraft intended for sports and leisure purposes of less than 4 m in length, which uses a propulsion engine having a water jet pump as its primary source of propulsion, and designed to be operated by a person or persons sitting, standing, or kneeling on the watercraft, rather than in the confines of the hull.

NOTE: The measurement methodology for the length of hull is defined in ISO 8666.

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4. INSTRUMENTATION

- 4.1 Electronic speed measuring equipment shall measure speed instantaneously within accuracy of $\pm 2\%$ at the maximum speed, such as satellite-based navigation system.

5. OPERATOR

- 5.1 Operator must wear all recommended protective gear (gloves, personal flotation device, proper protective ski shorts/pants/wetsuit shorts) and be familiar with the controls of the personal watercraft being tested.
- 5.2 Total weight of operator, with protective gear and additional test equipment/ballast, shall be $92 \text{ kg} \pm 8 \text{ kg}$.

6. PERSONAL WATERCRAFT SETUP

- 6.1 Personal watercraft model/variant shall be a stock original equipment manufacturer unit, be in good working order, and with—where applicable—fuel tank filled to rated capacity, oil tank filled to rated capacity, engine coolant filled to rated capacity, removable rechargeable electrical energy storage system (removable REESS), and tool kit (supplied by manufacturer), but without any cargo.
- 6.2 If the personal watercraft is equipped with trim devices, tests should be run with all devices in the retracted, “off” or neutral positions during the test.

7. TEST SITE

- 7.1 A suitable body of fresh water, free of obstructions to allow sufficient operation at high speed, for extended periods of time both before and after measurements are taken.
- 7.2 A dock, shoreline, or other stable platform (second boat) used for speed recording equipment and the observer recording data as needed.

8. WEATHER AND WATER CONDITIONS

8.1 Weather Conditions

Wind must be ≤ 10 knots to run a valid test. Testing may be conducted at any level of relative humidity provided the air is clear of fog and rain.

For information only: Water temperature affects water viscosity and density and, thus, impacts hydrodynamics of the hull and the water jet pump.

8.2 Wave Height

Wave height shall be ≤ 15 cm.

9. TEST PROCEDURE

9.1 Personal Watercraft Operation

The same operator shall complete all the measurement runs. The personal watercraft shall be warmed up for a minimum of 5 minutes prior to measurement runs. The personal watercraft shall achieve a stabilized maximum speed prior to measurement being recorded. If more runs are made than the recommended amount outlined in 9.3, where applicable, fuel and oil tanks must be filled back to the levels specified in provision 6.1 and REESS may be recharged.