

Towing a Jet Ski - how do I prevent filling the engine with water?

If you read in your manual it states that you cant tow your ski over 5 mph or engine damage may result (flooding the cylinders via the exhaust ports).

The tow tap (tow-valve) solves this issue and is mainly done to allow people to tow their pwcs behind boats at speed (above 5 mph).

All skis as far as I'm aware use the pump water flow downstream of the impeller ,where the water is pressurised, to flow water through the cooling system.

That is ... they don't have a water pump per se they just bleed pressurised water off the main pump.

Because the water intake of the ski is far greater in size than the pump nozzle outlet it builds pressure by being towed. That is ..water starts to flow through the pump when towed and has a smaller outlet than inlet so builds pressure.

Water starts to flow through the cooling system now ... if this pressure gets high enough it will overcome the gravity of the exhaust port height. Water pushes ever more upward including the water cooled exhaust passages ...which lead to the exhaust port with an open exhaust valve which leads to the particular cylinder that has has the open valve ... and the cylinder fills with water.

A tow tap goes in the main feed line from the pump to the motor and you close it to tow the craft and keep it safe from "tow flooding" the engine cylinders via the exhaust cooling passages.

Check your owner's manual to see if you can tow at speed with the Kawis .. I don't think you can but check anyway ... Yamaha don't recommend towing over 5mph for this reason.

Even the closed loop cooling system of the Seadoo Runabouts don't keep them safe from this flooding as they run an open loop cooling through the exhaust.

You wont sink them but you may flood the engine cylinders with water !

Its kind of like running it on the hose with the engine off ... water is going up

the cooling lines with engine off when you tow it

Below are pics of where the tow tap goes ! Be careful when sizing it and the barbs for the valve. The diameter of the valve and barbs should be below .490 inch.



