

## Case Study 127: **White Water River Boat**

### SPECIFICATIONS

<b>Waterjet:</b>	<b>DJ100G (Single)</b>
<b>Engine:</b>	<b>Yanmar 6LPAM-STP2 315hp @ 3800rpm</b>
<b>Gearbox:</b>	<b>1.25:1 Integral with Jet</b>
<b>Vessel:</b>	<b>25' (7.6m) LOA 21' (6.5m) LWL 5500lbs</b>
<b>Performance:</b>	<b>40+mph</b>



### A welded Aluminium white water riverboat from America's Custom Weld Boats

A single **DOEN DJ100G** waterjet propels this aluminium 25' (7.6m) craft designed and built by Custom Weld boats of Lewiston, Idaho in the USA. Designed specifically for recreational use in the white water rapids rivers typically found in North West USA; the high performance diesel jet package offers the same performance as a petrol engine options with outstanding fuel economy and range.

Power is provided by a single Yanmar 6LPAM-STP2 315hp diesel engine, which has been coupled to the transom mount DJ100G waterjet. The DJ100G's integral single step reduction gearbox ensures that the 10-inch (254mm) diameter high volume axial flow impeller is optimally matched to the engine. This provides the highest level of efficiency from the propulsion system providing unparalleled acceleration, load carrying and fuel economy with un-compromised top speed; even when fully loaded with people and cargo.

The DOEN balanced steering nozzle gives fast, precise response with minimal input force. This is simply controlled using Custom Welds center stick steering lever which is mechanically connected to the waterjets inboard steering tiller. This provides the vessel with exceptional control at both high and low speeds which is essential for navigating through the white water rapids.

This DJ100G waterjet is fitted with DOEN's Rotary Switch Box (RSB) reverse control utilizing a high force electric actuator to provide follow up, position sensing, control of the reversing bucket. The inboard mounted electric actuator simplifies the installation, set up and maintenance of the waterjet while retaining performance and reliability. This system simply interfaces with the standard Yanmar engine control system providing a simple single lever throttle and reverse bucket control.