

Mako Shearwater Jet Boat



Mako Marine Africa is a leading supplier of bespoke aluminium work/patrol/commercial/tourism inland water boats on the African continent.

Our 465 horsepower, specially-made Adventure Jetboat will take you up the rapids and right under the Falls . The true power and intensity of the falls/rapids can only be felt as you view them from below, covered in their spray. Our Jetboat was purpose-built for the Zambezi's fast-paced thrill ride, up and down the rapids. The captains have been specially trained to make sure you have the experience of a lifetime and then they'll get you home safely.

All hulls are fabricated from marine grade aluminium ensuring that whilst our boats are relatively light they are extremely robust, standing up to years of use (and in some cases abuse) in a multitude of countries without the common maintenance problems found in glass fibre and inflatable boats.

Our success in the commercial market is well known with "Mako" being the brand of choice in most of the 5-Star Safari Lodges across Africa and are also regularly purchased by Petroleum Companies, Fish Farms, Conservation, Police and Defence Departments as well as Mining and Construction companies where they have earned a reputation for quality of build and toughness.

SCOPE OF SUPPLY

Aluminium Hull and Deck

- In-house Design
- Exterior aluminium to remain unpainted
- Construction of steel strong back jig and or cradle
- Aluminium structures using:
 - Grade 5083 / 6082 plates
 - Grade 6261 / 6063 extrusions
 - Grade 5356 welding wire - All seams dye penetrate tested
- Heavy gauge plating on underside of vessel:
 - 8mm hull bottom
 - 6mm lower topsides
 - 4mm topsides.
- CNC cut parts
- Aluminium water jet guard
- Engine bed
- 130 litre fuel tank with aluminium spigots for hose fittings - Pressure tested
- Fuel tank access panel
- Hinged engine room access bonnet
- Aluminium handrails located on sides of vessel and in front of seats.
- Aluminium Seating for 14 passengers and 3 crew with handrails behind backrests
- Aluminium stanchion rails in aft section of the vessel
- 4 Point lifting chain plates
- 6 Built-in mooring cleats

SCOPE OF SUPPLY**Installation of Engine and Jet Drive**

- Single Volvo Penta D6-435 WJ 435hp @ 3500RPM
- Rubber engine mounts
- Flexible Coupling
- Single Deon DJ120 Water Jet
- Hydraulic Rotary Servo Reverse Control
- Screen Rake - fits inside jet intake
- 2 Additional Racor fuel filters
- Fuel line plumbing from fuel tank to engine
- Vetus exhaust piping
- Morse control levers - Throttle control
- Morse control levers - Reverse bucket control
- Hydraulic steering
- Steering Wheel
- Engine room sound insulation
- Ventilation

**D6-435 WJ**

D6-435 WJ

Technical description:

Engine block and head

- Cylinder block and cylinder head made of cast-iron
- Ladder frame fitted to engine block
- 4-valve technology with hydraulic lash adjusters
- Double overhead camshafts
- Oil-cooled pistons with two compression rings and one oil scraper ring
- Integrated cylinder liners
- Replaceable valve seats
- Seven-bearing crankshaft
- Rear-end transmission

Engine mounting

- Flexible engine mounting

Lubrication system

- Easily replaceable separate full-flow and bypass oil filter
- Seawater-cooled tubular oil cooler

Fuel system

- Common rail fuel injection system
- Control unit for processing the injection
- Fine filter with water separator

Air inlet and exhaust system

- Air filter with replaceable insert
- Crankcase gases vented into the air inlet
- Exhaust elbow or exhaust riser
- Freshwater-cooled turbocharger
- Loss of sea water alarm

Cooling system

- Thermostatically regulated freshwater cooling
- Tubular heat exchanger with separate large volume expansion tank
- Coolant system prepared for hot water outlet
- Easily accessible seawater impeller pump

Electrical system

- 12V or 24V two-pole electrical system

- 14V/115A or 28V/80A marine alternator with Zener-diodes to protect the system from peak voltage, and integrated charging regulator with battery sensor cable for maximum use of alternator
- Fuses with automatic reset (12V) and fuses with manual reset (24V)
- Auxiliary stop button

Instruments/control

- Complete instrumentation/display packages, including e-key, the electronic key from Volvo Penta.
- Electronic shift and throttle
- Plug-in connections

Technical Data

Engine designation	D6-435 I WJ
Crankshaft power, kW (hp)	320 (435)
Propeller shaft power, kW (hp)	N/A
Engine speed, rpm	3500
Displacement, l (in ³)	5.5 (336)
Number of cylinders	6
Bore/stroke, mm (in.)	103/110 (4.06/4.33)
Compression ratio	17.5:1
Dry weight Bobtail, kg (lb)	584 (1287)
Emission compliance	IMO NOx, EU RCD Stage II, US EPA Tier 3
Rating	R5*

Technical data according to ISO 8665. With fuel having an LHV of 42700 kJ/kg and density of 840 g/liter at 15°C (60°F). Merchant fuel may differ from this specification which will influence engine power output and fuel consumption.

* RATING 5. For pleasure craft applications, and can be used for high speed planing crafts in commercial applications

SCOPE OF SUPPLY**Deck Hardware**

- EVA Foam deck mat on all surfaces
- Upholstered seating for 14 passengers and 3 crew
- D-Shaped SPX Boat Fenders around sides and forward end of hull [300mm x 200mm]
- Vinyl rubbing strake on sides of D-Shaped Boat Fender
- Dual Rule 1500 Electric bilge pumps with automatic float switch
- Single Whale manual hand pump - backup bilge pump
- Twin bilge suction points with a bilge manifold with stainless steel valves for selection
- HDPE Floatation Bottles under deck
- Twin Sacrificial Zinc anodes mounted on transom
- Gas lifts for engine room hatch

Electrical System

- Electrical installation
- 12V DC 105Ah starter battery
- Battery switch
- Charge using engine alternator for battery
- Dual 12V DC outlet plugs
- Dual Engine room blowers



SCOPE OF SUPPLY

Safety Equipment

- 2 Life rings
- 17 Life jackets
- 17 Space blankets
- 17 Parachute Flares
- 10 Red hand flares
- 6 Buoyant smoke signals
- 20kg Anchor
- Anchor chain
- Anchor rope
- 2 x 5kg CO2 fire extinguishers



Optional:

- Fireboy MA2 automatic fire extinguishing system in engine compartment





