

GENERAL DESCRIPTION, 270 AQUAMATIC 250 ← OUTBOARD DRIVE

The outboard drive model ²⁷⁰250 is fitted with a bevel gear system for gear operation and a bevel reduction gear for the propeller shaft. The drive can be tipped up and is also used for steering purposes. It is fitted in a mounting collar which is bolted to the outside of the transom.

An electro-mechanical lift, to tip up the drive, is fitted on the inside of the mounting collar. The lift is operated by a control switch at the helm.

The rear of the engine is supported in the mounting collar by vibration-damping rubber units.

The drive housing and the mounting collar are made of a special light-alloy with great resistance to corrosion. A zinc ring fitted to the lower gear housing forward of the propeller and a zinc plug fitted on the mounting collar minimizes corrosion damage to the drive caused by galvanic currents.

Power from the engine is transmitted through a vibration damper and a double universal joint to the bevel gears for "Forward," "Reverse" and "Neutral."

The shift mechanism consists of the Volvo Penta patented cone clutch which ensures smooth and quiet engagement. Furthermore, only slight pressure is needed to operate it. The clutch is the Silent Shift type with self-adjusting friction cones and power-assisted disengagement. The engaging force of the clutch is produced by the torque level in the power transmission and results in even firmer clutch engagement as the throttle is opened.

The mounting collar contains all the connections and pipe lines for the engine cooling water intake, exhaust and water outlets, steering shaft with internally located steering rod and the control cable for the gear shift mechanism.

The engine exhaust gases mixed with the outgoing cooling water are taken through a bellows hose to channels cast into the drive. These channels are treated with special protective paint and continue through to the exhaust outlet at the rear edge of the anti-cavitation plate. The exhaust outlet also functions as a trim tab.

The water intakes for the engine cooling system are on the front edge of the lower gear housing.

The drive has a common oil system for the upper and lower gear housings. The oil is circulated to all gears and bearings by means of a circulation pump.

The outboard drive is fitted with a retaining pawl which engages with the locating pin when reverse gear is engaged and prevents the drive from tipping up.

The retaining pawl is engaged up to the planing speed of the boat by means of a spring-loaded pawl. This makes possible for change-over between forward and reverse without the drive kicking up. When the boat is in its high speed planing position, the retaining pawl is completely disengaged.

Should the underwater part of the outboard drive come into contact with any obstacle, the drive tips up and considerably reduces the risk of damage.