

VOLVO PENTA

AQUAMATIC 170/280 T

with INTERNAL POWER TRIM



Aquamatic 170/280T is a six-cylinder Aquamatic model with an output of 170 h.p. and with a hydraulically trimmable drive which makes the unit second to none in operation.

The outboard drive model 280T has an Internal Power Trim which can easily be manoeuvred from the boat operator's seat irrespective of the boat speed.

The engine with its drive and equipment is completely built for salt water operation under extremely hard marine running conditions and this guarantees the highest running reliability and durability.

The high output of the engine and its high torque in combination with the low fuel consumption make it particularly suitable for large boats. Its compact dimensions when installed and its low weight in relation to output also make possible installation in fast light-weight boats. On the basis of scientific calculations and practical tests it has been found possible to adapt the ratio of the drive so as to utilize engine torque to its maximum. This ensures maximum tractive effort, even in the economical moderate engine speed range.

Other technical advantages which are exclusive to Volvo Penta Inboard/Outboard engines.

■ Particularly extensive test operations of the engine and the outboard drive in one of the most modern engine laboratories in the world and on marine test circuits guarantee unexcelled lifetime and running reliability.

■ The engine is dimensioned for the utilization of full output and has stellite-flashed exhaust valves and hardened intake valves. The valves are of the self-rotating type.

■ The electrical system includes a sparkfree alternator with a particularly high charging capacity and is completely protected from corrosion even down to the electric cable flat pin connectors.

■ The outboard drive is the most powerfully dimensioned outboard drive of its type on the market and is particularly easy to manoeuvre by means of the patented cone clutch type Silent Shift together with the well-proportioned and balanced steering which makes the drive very easy to steer.

■ The hydraulic system on drive 280T is housed in the mounting collar and is fully protected against any damage, marine growth and attacks from corrosion.

■ Drive 280T can be infinitely manoeuvred to different "Trim", "Beach" and "Tilt" positions. The "Beach" position is for running in shallow water. The "Tilt" position indicates full elevation of the drive unit for launching, servicing, etc.

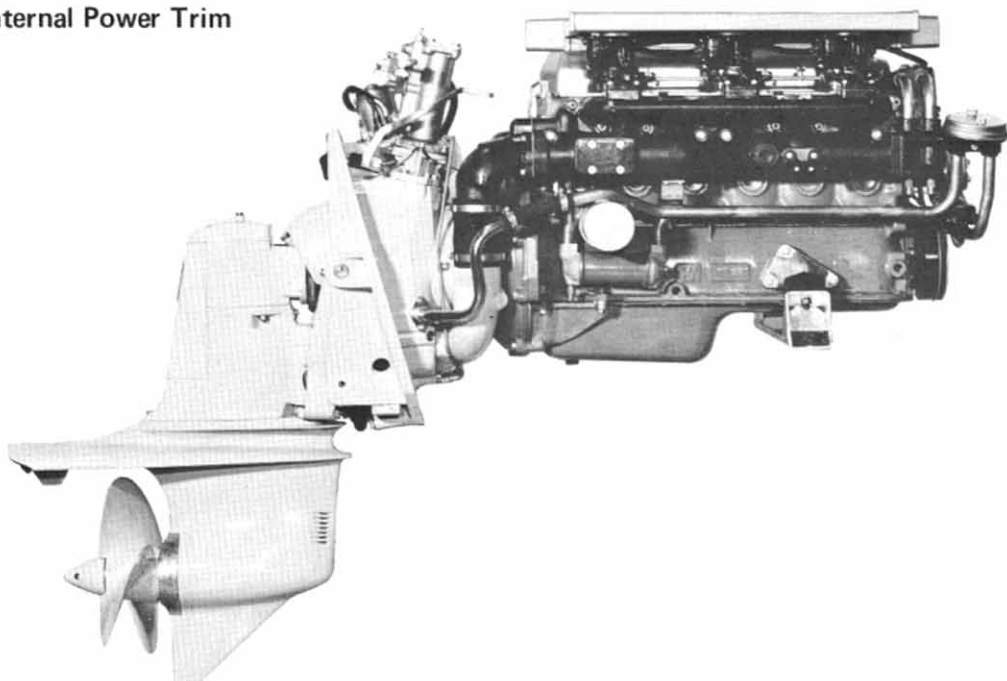
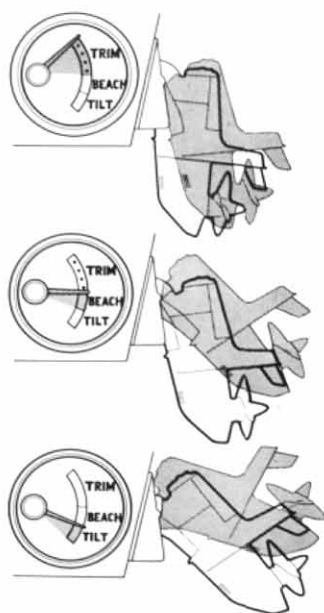
■ Installation is made easier by the fact that the hydraulic system is delivered completely fitted in the collar.

■ Cost-free 20 hours service inspections and a comprehensive factory guarantee provide full security. A well-developed service organization throughout the world with workshops with parts and specially trained personnel is always at your service wherever you are.

Volvo Penta six-cylinder, four-stroke marine engine

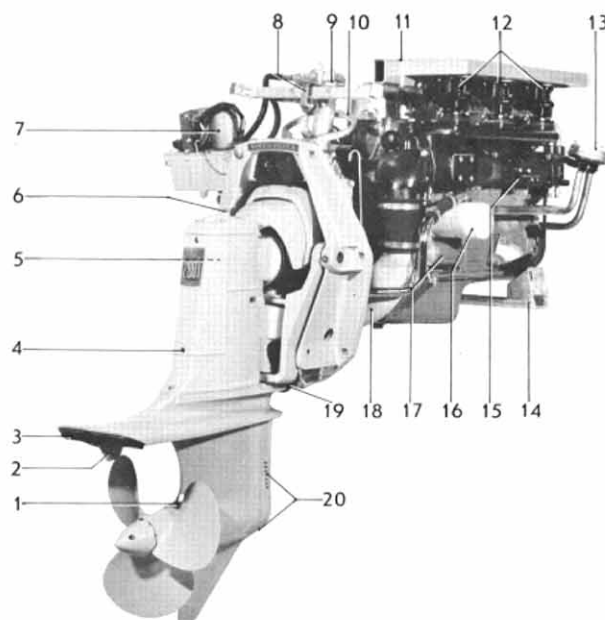
Outboard drive 280T with Internal Power Trim

170 h.p.



AQUAMATIC 170B/280TC

1. Anti-corrosion zinc ring
2. Trim tab
3. Exhaust outlet
4. Casing over control units
5. Oil filler
6. Oil dipstick
7. Electric hydraulic pump
8. Lever for control cable
9. Lift cylinder
10. Steering rod with connection for steering system
11. Air intake silencer "Silent Flow" with flame arresters
12. Down-draft carburetors (Solex, three)
13. Water filter
14. Front engine mounting with rubber block
15. Water cooled exhaust manifold
16. Spin-on full-flow oil filter
17. Cleanable oil cooler
18. Exhaust pipe
19. Trim cylinder
20. Water intakes



Outboard drive 280T

Outboard drive 280T has an Internal Power Trim and is a modification of the well-known 270T-drive which has more than proved its outstanding operational reliability and durability. The lower gear housing on drive 280T has an entirely new design, which gives it low flow resistance, this resulting in better speed performance within the higher speed ranges.

Irrespective of the boat speed, the drive can easily be trimmed in and out by means of a control switch on the instrument panel, which also has a trim indicator for indicating the position of the drive.

The best running position for the boat can thereby be selected at varying loads, and this ensures more rapid acceleration to planing speed, quieter running and better top speed. In this way the large power resources of the engine can be used with better operating economy as a result.

When running in "Reverse" the hydraulic system automatically locks the drive against tilting up and therefore no retaining pawl is required.

When running in shallow water the drive can be partly tilted to "Beach", where "Forward" and "Reverse" manoeuvring can be carried out.

The hydraulic system is so designed that the drive tilts on hitting an obstacle in the water when running "Forward". Safety valves in the hydraulic system open with overloading, and this protects the drive from damage. In emergency situations, rapid manoeuvring in reverse can also be carried out to speeds of about 15–20 knots without the drive "floating up".

DATA

Type of operation four-stroke carburetor engine with overhead valves

Type designation AQ170B/280TC

Max. output (SAE) 170 h.p.

Max. operating speed, r.p.m. 5000

Number of cylinders 6 in line

Capacity, litres (cu.in.) 2.979 (182)

Bore/stroke, mm (in.) 88.9/80 (3.50/3.15)

Compression ratio 9.5:1

Outboard drive, type designation/ratio 280TC/1.89:1

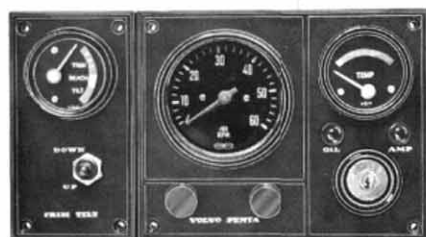
Hydraulic power trim manoeuvring

Trim -4° – $+4^{\circ}$

Beach 4° – 30°

Tilt 30° – 60°

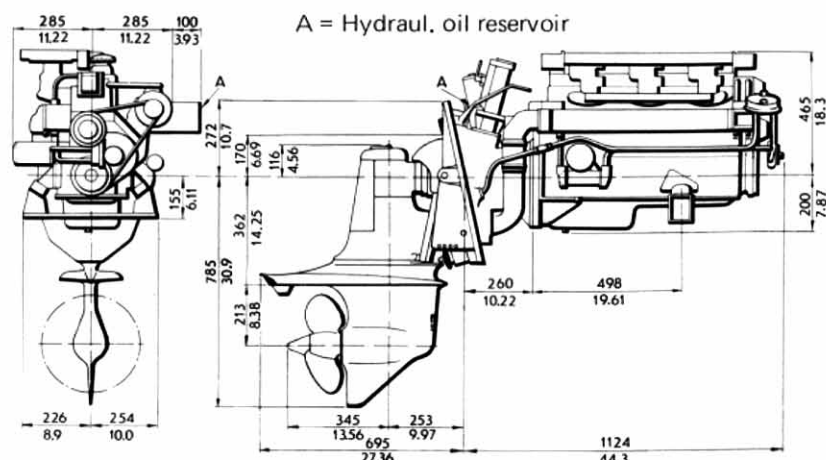
Total weight, kg (lb.) 335 (735)



Instrument panel — can be supplemented with smaller panels for extra instrumentation.

Electric revolution counter, electric temperature gauge, warning lamps for charging and oil pressure, switch and switch key trim indicator and toggle control switch are included as standard. Electric cable harness 7 m (23 ft.) in length with ready-connected joint contact.

DIMENSION DRAWING



We reserve the right to carry out modifications



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