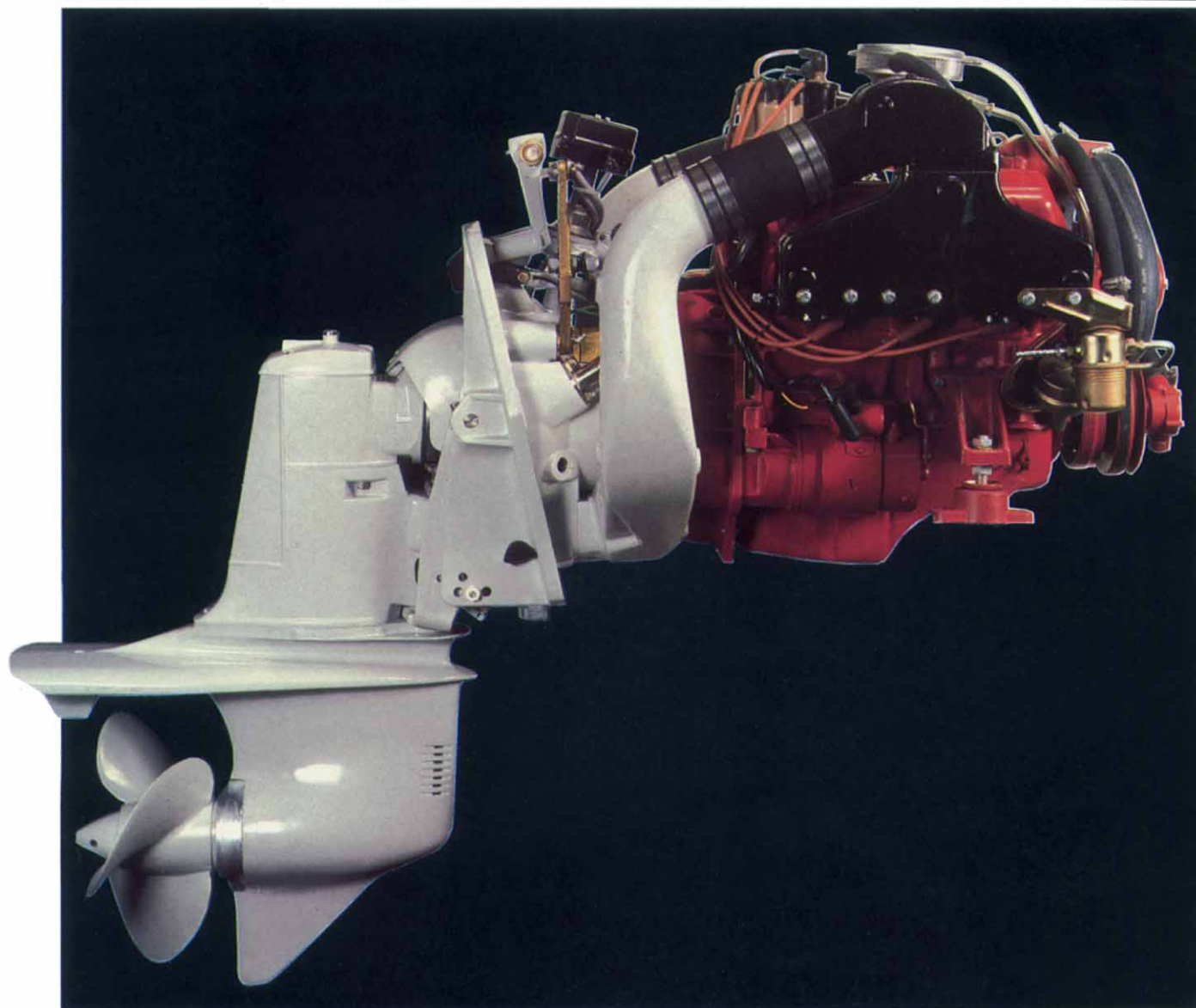


**VOLVO
PENTA**

AQ175A/280B



V6, 4-stroke carburettor engine, fitted with Type 280 outboard drive. Power output 125 kW (170 hp)

The AQ175 is a technically-advanced, quiet, vibration-free, 4-stroke, V6 Aquamatic engine and is combined with the 280 drive (either in standard or Power Trim form). This combination gives optimum speed and acceleration, with good fuel economy.

The well-balanced running of this engine is achieved by a unique design which includes a 4-bearing crankshaft and double excentric crank pins for uniform distributing of the ignition forces. The carburettor is of the two barrel type, which gives low fuel consumption.

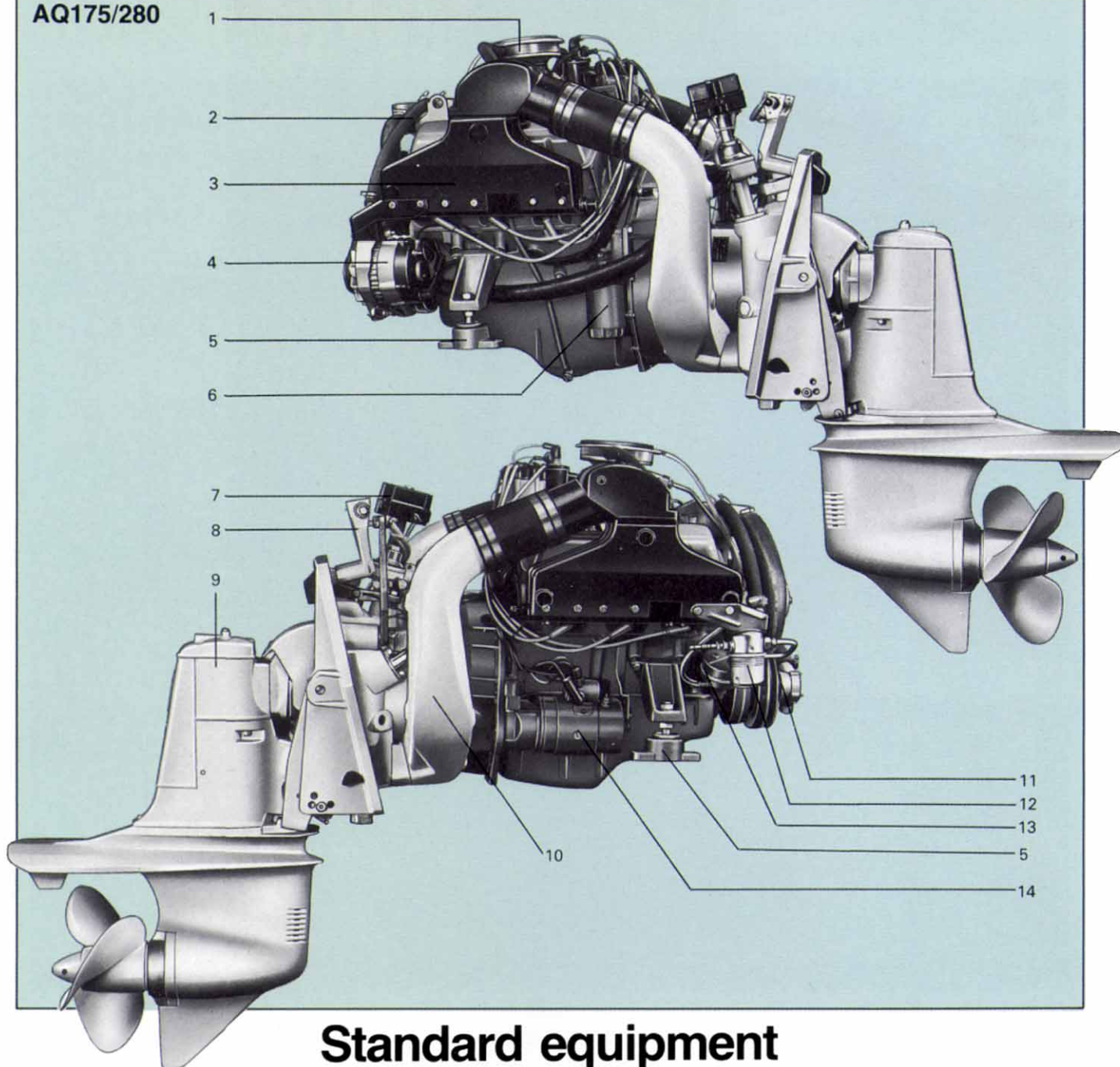
Compact dimensions and low weight offer valuable benefits from the point of view of engine installation in the boat hull.

Many of the basic components and the marinisation parts are common to the V8 Volvo Penta Aquamatic engines.

The 280 drive, well-known for its long working life and outstanding salt water corrosion resistance, together with the engine, forms a compact reliable unit in which the performance of the engine is exploited to the full. The retaining pawl has a quick release feature to allow the drive to kickup when striking underwater objects.

Volvo Penta has a well-established network of authorized service workshops providing original spare parts and skilled personnel. It is their job to make sure that you enjoy a safe and comfortable boating season.

AQ175/280



Standard equipment

ENGINE BODY

Cylinder block and cylinder head made from a special grade of cast iron. The angle between the cylinder rows of the V6 is 90°. Crankshaft mounted in 4 bearings with double excentric crank pins. Overhead valves with hydraulic valve lifters and self-rotating exhaust valves.

FUEL SYSTEM

Two-port downdraft carburettor with automatic choke. Fuel pump (13) and fuel filter (12).

COOLING SYSTEM

Thermostat-controlled seawater cooling. Seawater pump (11) with

neoprene rubber impeller and circulation pump (2) for efficient cooling.

LUBRICATING SYSTEM

Pressure lubrication with full-flow lubricating oil filter (6). Closed crankcase ventilation.

INTAKE SYSTEM

Flame guard (1), approved type.

EXHAUST SYSTEM

Seawater cooled exhaust pipe made of cast iron, with high exhaust riser (3). Complete exhaust line (10) for connection to drive.

FORWARD ENGINE MOUNTING

Flexible high-adjustable forward engine mountings (5).

OUTBOARD DRIVE

Outboard drive (9) complete with mounting collar, rubber-suspended flywheel housing and installation components. All gears helical cut and designed for continuous operation in either direction of rotation. Cone clutch gives reliable and quiet engagement; low operating force required. Drive can be tilted through 60°. The gearshift mechanism has an easily adjusted link rod to allow conversion to suit clockwise or

anti-clockwise rotation of propeller.

Attachment for steering cable and steering arm, with reduction, fitted to mounting collar (8).

Standard pattern, with electro-mechanical power tilt for drive (7). Reverse pawl mechanism (15), patented design, gives full reverse capability and prevents drive from tilting up when throttle is pulling back quickly. Also allows drive to kick up on striking underwater objects.

"Power Trim" with electrically-driven system allows trimming of angle of drive while running, and also full tilting of drive. Mechanical reverse pawl mechanism, same as standard pattern, also fitted. Completely independent of hydraulic system.

ELECTRICAL SYSTEM

Corrosion-proofed 12 V electrical system, complete with instrumentation. Alternator (4), 50 A, 600 W, designed for marine operation. Voltage regulator for rapid battery charging. Alternator designed for fitting of double diode system which automatically distributes loading current to two or more batteries.

STARTING

Electric starter motor (14), 960 W, (1.3 hp)

INSTRUMENT PANEL

Instrument panel fitted with key switch, tachometer, thermometer, oil pressure gauge, voltmeter,



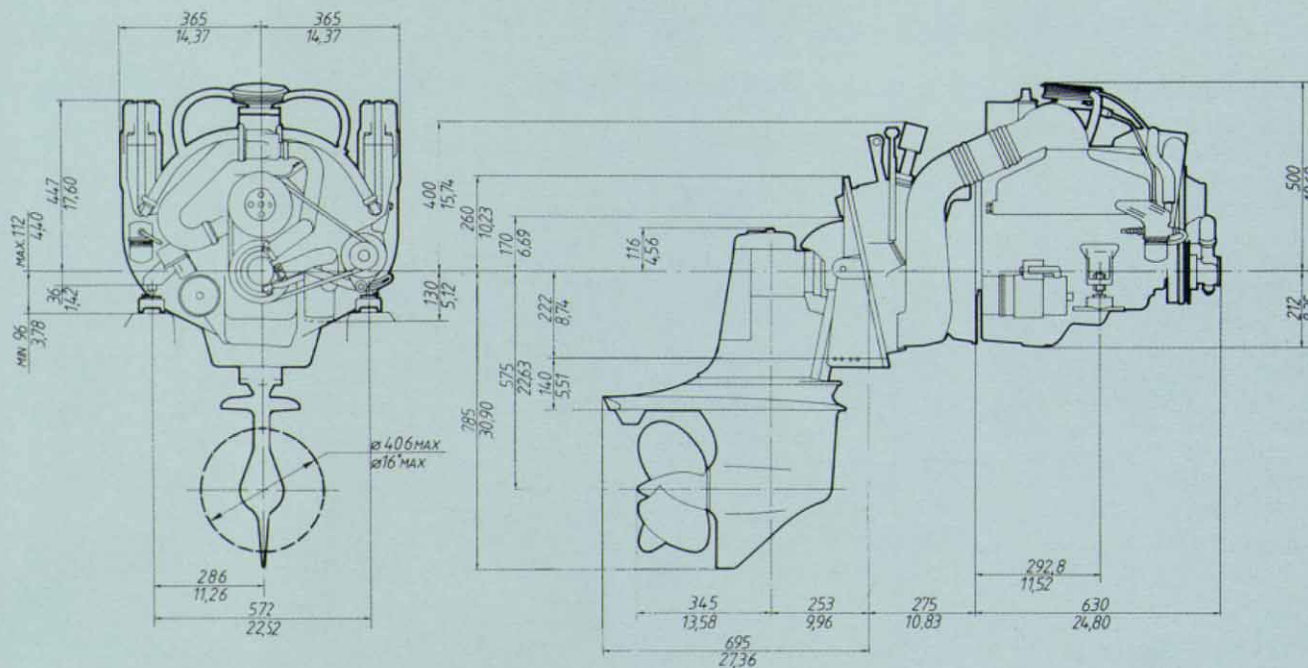
double fuses and switch for instrument lighting. Automatic main fuses with reset button. Extension cable, length 7 m, with plug-in connector fitted.

Separate operating switch and indicator lamp for power-tilt of drive is supplied, or alternatively instrument for reading angle of trim when Power Trim is fitted. 7 m extension cable with plug-in connector also supplied.

Data

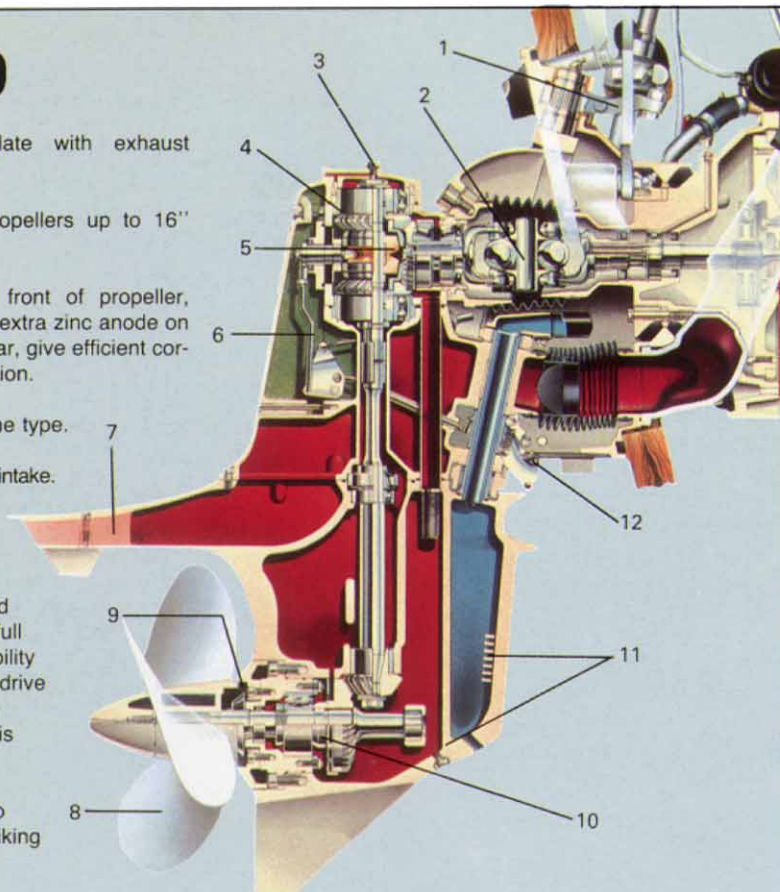
Type of operation	4-stroke carburettor engine with overhead valves
Designation	AQ175A/280B
Max. power output*	170 hp (125 kW)
Max. revolutions	4800 r/min
Number of cylinders	V6, 90°
Capacity	3.8 dm ³
Cylinder diameter/stroke	95/88.4 mm
Grade of fuel	min. 91 octane RON
Outboard drive, type des. and reduction	280B/1.61:1
Total weight, standard pattern, approx.	338 kg (745 lb)
Total weight, Power Trim, approx.	354 kg (780 lb)

* Max. flywheel output, according to DIN 6270 Leistung B and SAE J245



Outboard drive 280

1. Robust steering arm on inside of mounting collar. Ready for coupling to steering cable.
2. Double universal joint. Strongly designed and completely maintenance-free.
3. Easily-accessible oil dipstick.
4. Helical-cut gears for low noise level.
5. Patented cone clutch. Silent shift type. Operates smoothly and quietly and requires little effort.
6. Link rod for clutch. Direction of rotation of propeller can be reversed by relocating this rod.
7. Cavitation plate with exhaust outlet.
8. Space for propellers up to 16" diameter.
9. Zinc ring in front of propeller, together with extra zinc anode on mounting collar, give efficient corrosion protection.
10. Oil pump, vane type.
11. Cooling water intake.
12. Reverse pawl mechanism, patented design gives full reverse capability and prevents drive from tilting up when throttle is pulling back quickly. Also allows drive to kick up on striking underwater objects.
13. Power Trim (13) with hydraulic trimming of drive angle, during running, and full tilting of drive. Reverse pawl, quick kickup type (same as on standard pattern drive). Completely independent of hydraulic system.



Accessories

FUEL SYSTEM

Water separation fine filter, with or without flexible hoses.
Fuel feedpipe kit, with copper tubes and fittings.
Lid, with connections, for fuel tank.

ELECTRICAL SYSTEM AND INSTRUMENTS

Battery charge distributor for use with two-battery system.
Extra instruments: electric timer, fuel and water level meters, rudder position indicator.
Master switch.
Extension cables.
Panel for extra instruments.

OUTBOARD DRIVE

Extension of drive.

BOAT ACCESSORIES

Electric bilge pump.
Original paint.
Oils.

CONTROLS AND OPERATING SYSTEMS

VP single-lever control for engine speed and gearshift, either vertical or side mounted.
Single or twin installations.

Neutral position contact for VP control.
Steering gears.
Steering wheel.
Steering cable.
Ball joint for steering cable.
Parallel rods for double installation.
Control console, complete kit.
Steering cable attachments.
Guide tube for steering cables.
Hydraulic steering.
Equipment for flying bridge installations.

AQUAMATIC PROPELLERS

**VOLVO
PENTA**

S-405 08 Göteborg, Sweden