

AQ 145A/280



4-cylinder, 4-stroke fresh-water cooled carburetor engine with model 280D outboard drive

STANDARD EQUIPMENT

ENGINE BODY — Cylinder block made of cast iron and cylinder head of light-alloy. The engine is fitted with 20° inclination in the flywheel housing. Overhead camshaft driven by a toothed belt made of reinforced neoprene rubber. Light-alloy pistons with 2 compression rings and one oil scraper ring. Crankshaft journalled in 5 bearing. Overhead valves with replaceable seats. Thrust washers for setting valve clearance. A tool kit for minor adjustments is supplied.

FUEL SYSTEM — Double downdraft carburetors with acceleration pumps (1). Fuel pump (9).

COOLING SYSTEM — Thermostat-controlled fresh-water cooling with heat exchanger (18), expansion tank (10) and circulation pump. Sea-water pump with neoprene rubber impeller (8). Built-in cleanable sea-water filter (13).

LUBRICATING SYSTEM — Pressure-lubricating system with full-flow lubricating oil filter of the spin-on type (4). Sealed crankcase ventilation. Cleanable, tubular-type oil cooler (5).

INTAKE SYSTEM — Silent Flow intake silencer with built-in flame guard (16).

EXHAUST SYSTEM — Sea-water cooled exhaust manifold elbow of cast iron (7). Complete exhaust line for connection to drive (19).

ELECTRICAL SYSTEM — Corrosionsproof 12 V electrical system, with complete instrument panel (see reverse side). Main fusing mounted on engine with built-in spare fuses. Brushless alternator with built-in transistorized regulator, 35 A, 420 W (6). Starter motor output 735 W (1 h.p.) (17).

FRONT ENGINE MOUNTING — Flexible front engine mounting (20). Adjustable vertically and laterally.

OUTBOARD DRIVE — Complete with mounting collar, rubber-suspended flywheel housing and installation parts. All gears are of the helical cut bevel type, designed for continuous operation in either direction, of rotation.

Cone clutch (patented) of Silent Shift type provides reliable operation and quiet engagement with small manoeuvring forces.

The drive can be tilted up to 60°.

The shift mechanism has an easily adjustable link rod for altering the propeller direction of rotation from left-hand to right-hand.

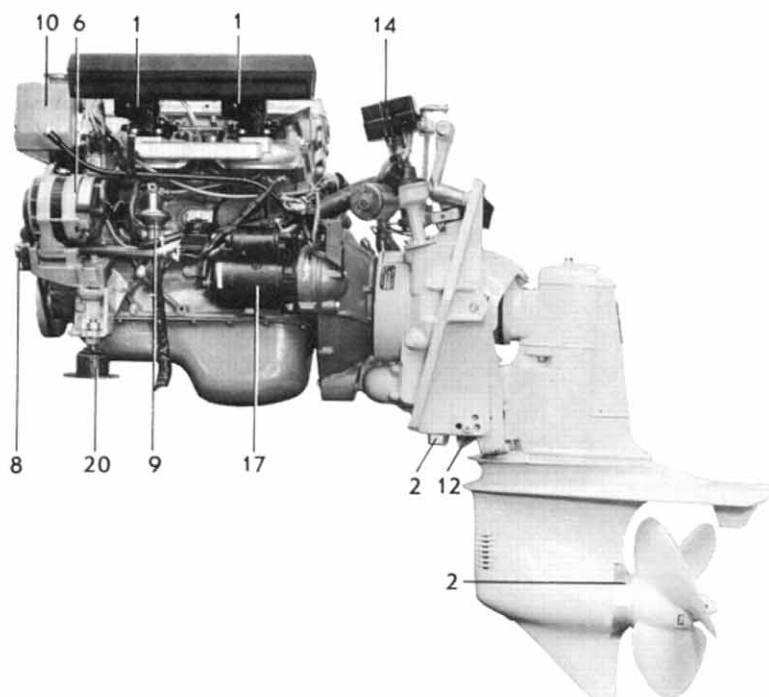
Attachment for steering cable and steering arm with reduction mounted on the collar (15).

Two self-sacrificing zinc anodes protect the outboard drive against corrosion (2). Cooling water intake at front and bottom of drive ensure cooling water supply to engine (3).

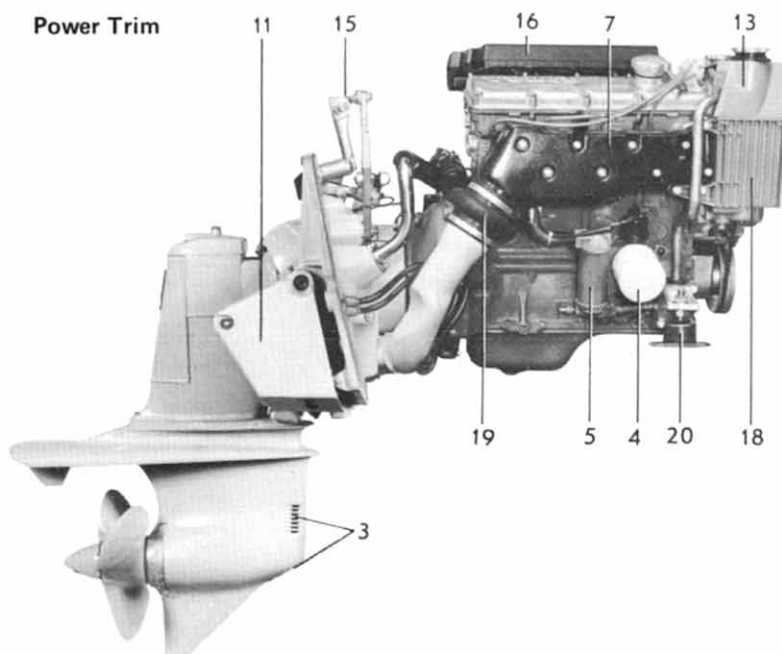
Reversing pawl (12) of patented design permits the drive to kick up when striking underwater objects. Yet holding the drive in downward position when going in reverse or pulling back the throttle in forward motion. **Standard version** with electro-mechanical power tilt (14).

"Power Trim" version with electrical motor driven hydraulic system for trimming the drive angle during operation (11).

Standard



Power Trim



EXTRA EQUIPMENT

FUEL SYSTEM

Water-separating filter with or without flexible hoses
 Water separator.
 Fuel line kit with copper piping and installation parts.
 Cap with connections for fuel tank.
 Flexible fuel suction line

COOLING SYSTEM

Extra cooling water intake for fitting on transom.

ELECTRICAL SYSTEM AND INSTRUMENT

Charging distributor for charging 2-battery system.
 Extra instruments: Hourmeter, fuel- and water gauge, voltmeter, rudder indicator.
 Master switch.
 Cable harness extension.

Instrument panel for extra instruments.
 Automatic alarm for oil pressure and water temperature.

OUTBOARD DRIVE

Extensions for outboard drive

BOAT ACCESSORIES

Electrically operated bilge pump
 Original paint
 Oils
 Electro-mechanical trim tabs
 On board kits

CONTROLS AND CONTROL SYSTEM

VP single-control lever for both speed and forward-reverse operation, top-mounted or side-mounted. Single or twin installation.
 Neutral-position switch — automatic safety interlock for VP-controls
 Dual station control unit
 Control cables
 Steering gears
 Steering wheels
 Steering cables
 Ball joint for steering cable
 Tie-bar kit for twin installation

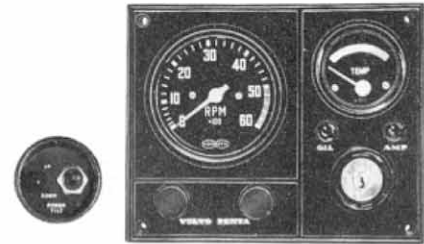
AQUAMATIC PROPELLERS

DATA

Type of operation	4-stroke fresh-water cooled carburetor engine with overhead valves
Designation	AQ 145A/280D
Max. output ¹⁾ at 5500 r/min (91.7 r/s)	138 hp (101 kW)
Recommended full throttle	4500–5100 r/min. (75–85 r/s)
Number of cylinders	4 in-line
Capacity, dm ³ (in ³)	2.31 (140)
Bore/Stroke, mm (in)	96/80 (3.78/3.15)
Compression ratio	9,7:1
Fuel quality ²⁾	min. 90 octane RON
Outboard drive, type design. and red.	280D/2.15:1
Total weight standard, kg (lb), approx.	245 (540)
Total weight, Power Trim, kg (lb) approx.	270 (595)

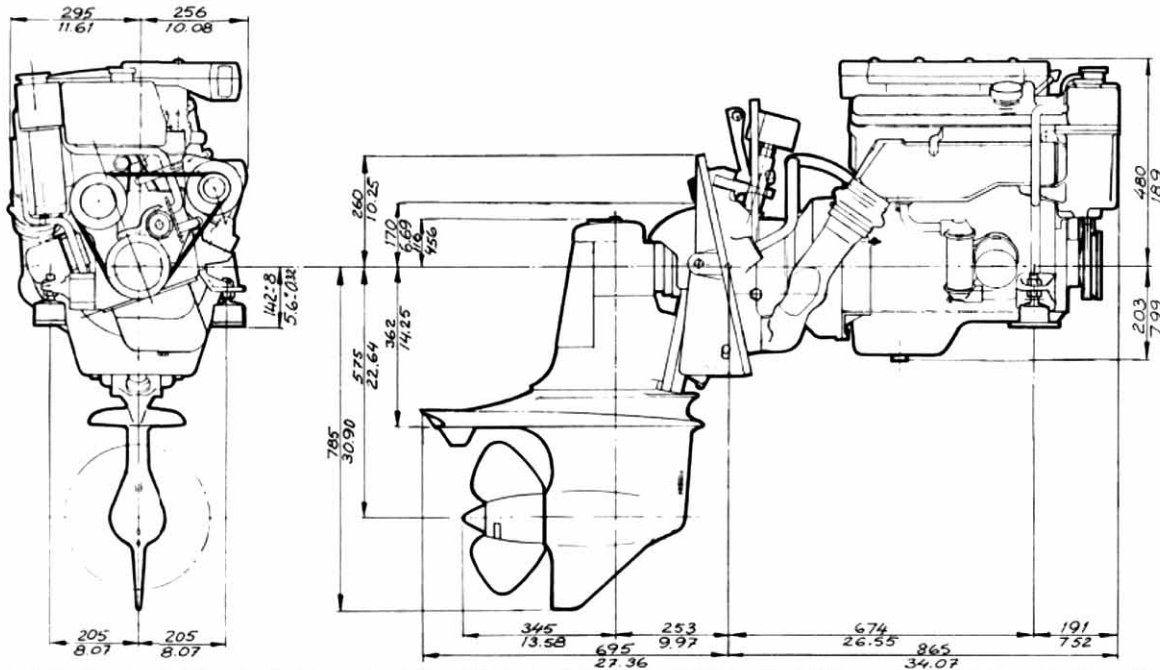
1) Max. flywheel output acc. to SAE J 607

2) The engine can be run on unleaded fuel.



Instrument panel, which is included in standard equipment, is provided with key switch, rev counter, temperature gauge, warning lamps for battery charging and oil pressure, switch for instrument lighting and one extra switch. Cable harness, 7 m (23 ft.) in length, with plug-in contact.
 Separately installed operating switch and control light for drive lift as well as a 7 m (23 ft.) long electric cable harness with plug-in contact is supplied.

DIMENSION DRAWING



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