

VOLVO PENTA AQUAMATIC

5.7GXi/SX

8-cylinder, 4-stroke, gasoline marine engine
235 kW (315 hp)

Engine

The 5.7 liter GXi is a GM Vortec gasoline engine in a V-8 configuration featuring: seawater cooling with cast iron cylinder block, cylinder heads and exhaust manifolds, which are specially developed for the marine industry. The exhaust manifolds and risers are EDP treated for increased durability. In addition, the seawater pump is located on the front of the engine for easy accessibility.

Fuel injection

The TBI system is monitored by an Electronic Control Module (ECM) and gives the following advantages: more responsive and smoother acceleration, excellent turnkey starts in all weather conditions, smooth reliable idling, reduced fuel consumption, and improved control of emissions.

Additional features built into the system include: engine knock control for compensation of less than perfect gasoline, overspeed protection, rpm reduction of the engine for low oil pressure and high engine temperature, platinum tipped spark plugs for longer life and trouble free starts, altitude compensation for air density, and self-diagnostic capabilities. Also, there are two fuel pumps for low and high pressure respectively.

Aquamatic sterndrive

The SX single propeller drive is of the most modern design featuring exhaust through the propeller hub for quiet and efficient operation, a cone clutch for easy and smooth shifting, pattern-matched spiral bevel gears for optimum strength and minimum gear whine, and a break-away shaft coupling to prevent costly drivetrain repairs.

The hydrodynamic design of the lower drive housing ensures excellent

5.7GXi with SX
Aquamatic drive



course stability both at high speed and when maneuvering at low speeds and in reverse. The drive is equipped with easily maneuvered hydraulic power trim for obtaining the best running position at different sea and load conditions.

For maximum corrosion protection the drive has gone through a 23 step paint process and comes equipped with sacrificial anodes both on the drive and transom shield.

Either right- (standard) or left-handed propellers can be used. A choice of stainless steel and aluminum propellers are available for different applications.

The 5.7GXi features standard power steering for maximum driving comfort.

Electrical system

The electrical system features a 12 V corrosion-protected marine electrical system which meets the U.S. Coast Guard requirements. The engine is wired for easy plug-in connection to the instrument panel. The engine electrical system and the electric hy-

draulic power trim is protected by a 50 A circuit breaker and comes equipped with a 65 A alternator. Full instrumentation including trim gauge and wiring harness (option on certain markets).

Technical description:

Engine and block

- Cylinder block and cylinder heads made of cast iron for good corrosion resistance
- Pistons with two compression rings and one oil scraper ring
- Five-bearing crankshaft
- Valve train consisting of single camshaft, hydraulic valve lifters, push rods and two overhead valves per cylinder

Engine mounting

- Two adjustable rubber mounts, one on each side of the engine, and two between transom shield assembly and engine

Lubrication system

- Pressure lubrication system with full-flow oil filter of spin-on type

Fuel system

- Throttle body fuel injection (TBI)
- Fuel filter with water separator
- Two electric fuel feed pumps
- Stainless steel fuel lines

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Inlet and exhaust system

- Marine intake manifold developed for throttle body injection
- Flame arrestor
- Closed crankcase ventilation
- Seawater-cooled exhaust manifolds and risers made of cast iron
- Complete exhaust line with pipe and bellows for exhaust outlet through the drive

Cooling system

- Thermostatically controlled seawater cooling
- Crankmounted seawater pump
- Multi-V belt with spring tensioner
- Electrocoated exhaust risers and manifolds

Electrical system

- 12 V corrosion-protected electrical system
- ECM unit ensures constant optimum performance with diagnostic capability
- Outlet on alternator for voltage sensor cable for optimized charging
- 65 A alternator with internal transistorized voltage regulator
- Breakerless electronic ignition system
- Platinum tipped spark plugs
- Two 50 A resettable fuses for protection of the engine's electrical system and power trim
- One 20 A resettable fuse for protection of the fuel pump and one 12.5 A resettable

- fuse for protection of the fuel injection system
- Starter motor power 1.0 kW
- Audio alarm for temperature and oil pressure

Instruments

(option on certain markets)

- Complete instrument panel including: Rev counter, engine temperature gauge, oil pressure gauge, voltmeter, key switch, two fuses, instrument light switch
- Wiring harness from engine to instrument panel
- Maneuver switch for power trim
- Wiring harness from trim pump to maneuver switch for power trim and trim gauge

Drive

- Single propeller drive which can be run with both right- and left-hand propellers
- Cone clutch
- Coolant water intake for the engine located at the lower part of the drive
- Pattern-matched spiral bevel gears
- Through-hub exhaust
- Overload protection sleeve (break-away coupling)
- The drive can be tilted 55°
- The drive can be turned 28° in each direction

- Built-in kick-up function to reduce possible damage, in the event the drive strikes an underwater object
- Belt-driven power steering pump
- Oil cooler for power steering
- Active corrosion protection as accessory

Power Trim

- Electrically operated hydraulic system with trim gauge for best driving comfort

Accessories

An extensive range of accessories for:

- Fuel system
- Cooling system
- Control system
- Steering system
- Instruments
- Electric system
- Comfort & Safety
- Propeller & Drive
- Maintenance

For detailed information, please see Accessory catalogs.

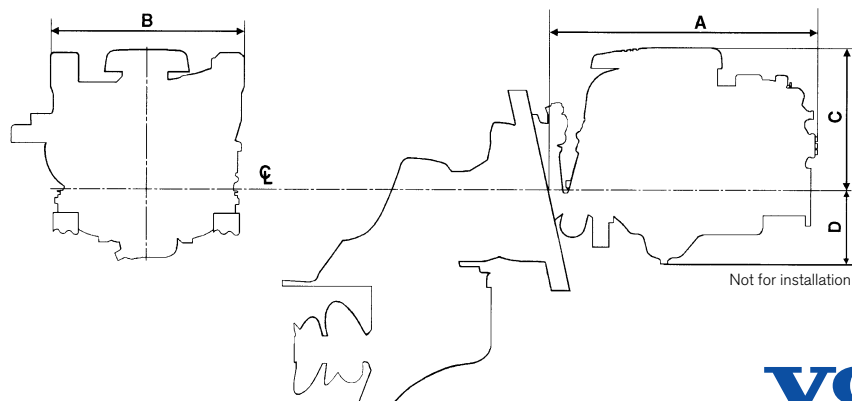
Contact your local Volvo Penta dealer for further information.

Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The engine illustrated may not be entirely identical to production standard engines.

Technical Data

Engine designation	5.7GXi
Propeller shaft power kW (hp)	235 (315)
Max. engine speed, rpm	5000
Displacement, l (in ³)	5.7 (350)
Number of cylinders	V-8
Fuel system	EFI-TBI
Bore/stroke, mm	101.6/88.4
in.	(4.00/3.48)
Compression ratio	9.4:1
Volvo Penta Aquamatic drive	SX
Ratio	1.43:1
Dry weight engine, transom shield and drive, kg (lb)	450 (991)
A. Engine length along crank center line, mm (in.)	940 (37)
B. Engine width, mm (in.)	718 (28.25)
C. Height above crankshaft, mm (in.)	559 (22)
D. Height below crankshaft, mm (in.)	251 (9.9)
Propshaft power according to ISO 8665	
Duty rating: R5 (Pleasure Duty)	
IMEC Standard	



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