# **Maintenance Schedule**

Your Volvo Penta engine and its equipment are designed for high reliability and long life. The engines are built to withstand the marine environment, but also to have the smallest possible environmental impact. If the engine and transmission are serviced regularly according to the schedule, these qualities will be retained and unnecessary malfunctions will be avoided.

#### Warranty inspection

During the initial period of use a special warranty inspection - a First service inspection - must be carried out by an authorized Volvo Penta workshop. Instructions regarding when this must be done can be found in the **Warranty and service book**.

#### Extended protection for leisure use

Volvo Penta offers extended protection for marine diesel engines, including power trains, applicable only to leisure boats. For the warranty to be valid, all prescribed services must have been carried out at the owner's expense by an authorized Volvo Penta dealer or service workshop before the 12 month warranty period has expired. Further instructions are contained in the Warranty and service book.

C = Clean

R = Replace

A = Adjust

L = Lubricate

I = Inspect (Clean, Adjust, Lubricate or Replace if necessary)

FSI = First Service Inspection

A - F = Type of service (regular service)

#### FSI

First Service Inspection, after 50–100 running hours (1)	
Coolant level and antifreeze mixture	I
Drive belt and belt tensioner	ı
Fuel pre-filter, draining water / contamination	IC
Outboard drive, corrosion protection	I
Outboard drive, oil level in Power Trim	1
Outboard drive, oil level in Power steering	ı
Start and warm up engine	<u> </u>
Engine and transmission, oil / fuel / water leakage	ı
Engine and transmission, abnormal noises	1
Power steering and Power Trim, function and leakage	l l
Stop Engine	
Reverse gear, oil level	

<sup>1)</sup> Or within 180 days of the date of delivery, or the end of the first season, whichever comes first.

Every 100-200 hours / at least every 12 months (1)	
Engine Oil and Oil Filters / By-pass filter	R
Crankcase ventilation filter	R

<sup>1)</sup> Oil change intervals vary, depending on engine type, oil grade and sulfur content of the fuel. Please refer to *Technical Data page 118* 

#### A

Every 200 hours / at Least Every 12th Month	
Coolant level and antifreeze mixture	ı
Air Filter	R
Fuel pre-filter and fuel fine filter	R
Seawater filter	The state of the s
Drive belt (tension)	ı
Impeller, raw water pump	I
Reverse gear, oil and filter	R
Reverse gear, propeller shaft seal	ı
Outboard drive, oil	R
Outboard drive, corrosion protection	R
Outboard drive, propeller shaft. Visuall inspection of propeller seal.	IL
Outboard drive, U-joint and primary bearing	L
Outboard drive, bellows, rubber hoses and clamps	1
Checking exhaust line	1
Outboard drive, universal joint bellow	ı
Hydraulic hoses and fittings. Thoroughly inspect for signs of leaks, wear, cracs or aging	ı
Engine and transmission, oil / fuel / water leakage	l
Engine and transmission, touch up paint as required	L
Batteries, electrolyte level	ı

# B

Every second year	
Impeller, Seawater Pump	R
Outboard drive, universal joint bellow	R

#### C

Every 4 years	
Coolant	R

# D

Every 400 Hours / at Least Every 4 Years	
Outboard drive, hydraulic valve oil and oil filter (Steering Control Unit)	R

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## E

Every 600 hours / at least every 5 years	
Turbocharger	I
Drive Belts	R
Checking exhaust line <sup>(1)</sup>	R
Outboard drive. Trim/steerirng cylinders, hoses / hydraulic hoses (check for leakage)	I
Outboard drive, function and leakage	ı
- Bushes / shaft stubs in shield and suspension fork	
- Propellershaft seal	
- Propellershaft (check straightness)	
- Gear change mechanism and control cable	
- Steering	

<sup>1)</sup> Replace hose every 5 years.

## F

Every 1200 hours / at least every 5 years	
Control cables and seals	R
Outboard drive, disassemble and check for wear. Safety and function check. (1)	I

<sup>1)</sup> Every 1200 hours

#### G

Every 1400 hours / at least every 8 years	
Timing belt, Change	R

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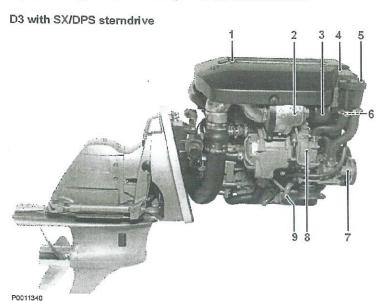
# Maintenance

This chapter contains general technical information and instructions on how the prescribed maintenance items must be carried out. Read through the instructions carefully before starting work. The times when maintenance items must be carried are indicated in the *Maintenance Schedule page 65*.

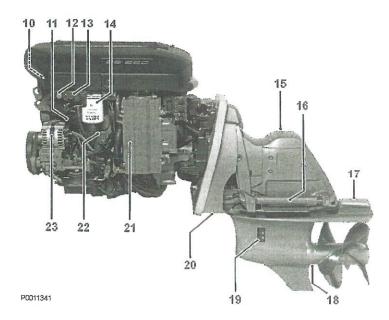
Read through the safety precautions for maintenance and service in the Safety Information page 4 chapter before work on the engine is begun.

# **⚠** WARNING!

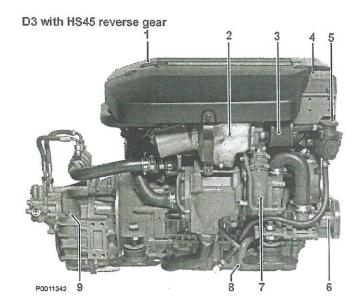
Care and maintenance work should be done with the engine stopped unless otherwise specified. Stop the engine before opening or removing the engine hatch/hood. Make it impossible to start the engine by removing the start key and cutting the system voltage with the main switches.



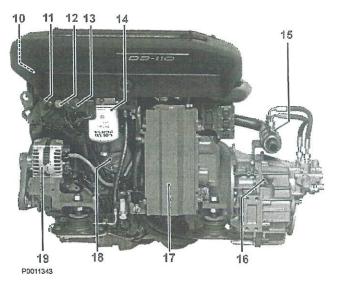
- 1 Oil filler cap, engine
- 2 Turbo
- 3 Air Filter
- Coolant filler cap
- Seawater filter
- 6 Crankcase ventilation
- 7 Seawater Pump
- 8 Charge air cooler
- Oil Cooler



- 10 Relays
- 11 Oil Filter
- 12 Auxiliary stop
- 13 Fuel feed
- 14 Fuel Filter
- 15 Oil dipstick, drive
- 16 Trim cylinder
- 17 Sacrificial Anode
- 18 Oil draining (behind propeller)
- 19 Seawater intake
- 20 Sacrificial Anode
- 21 Heat exchanger
- 22 Oil dipstick, engine
- 23 Alternator



- 1 Oil filler cap, engine
- 2 Turbo
- 3 Air Filter
- 4 Coolant, Filling
- 5 Crankcase ventilation
- 6 Seawater Pump
- 7 Charge air cooler
- 8 Oil Cooler
- 9 Oil filter, reverse gear



- 10 Relays
- 11 Oil Filter
- 12 Auxiliary stop
- 13 Fuel feed
- 14 Fuel Filter
- 15 Oil cooler, reverse gear
- 16 Oil dipstick, reverse gear
- 17 Heat exchanger
- 18 Oil dipstick, engine
- 19 Alternator