

Engine Preparation

Presented by

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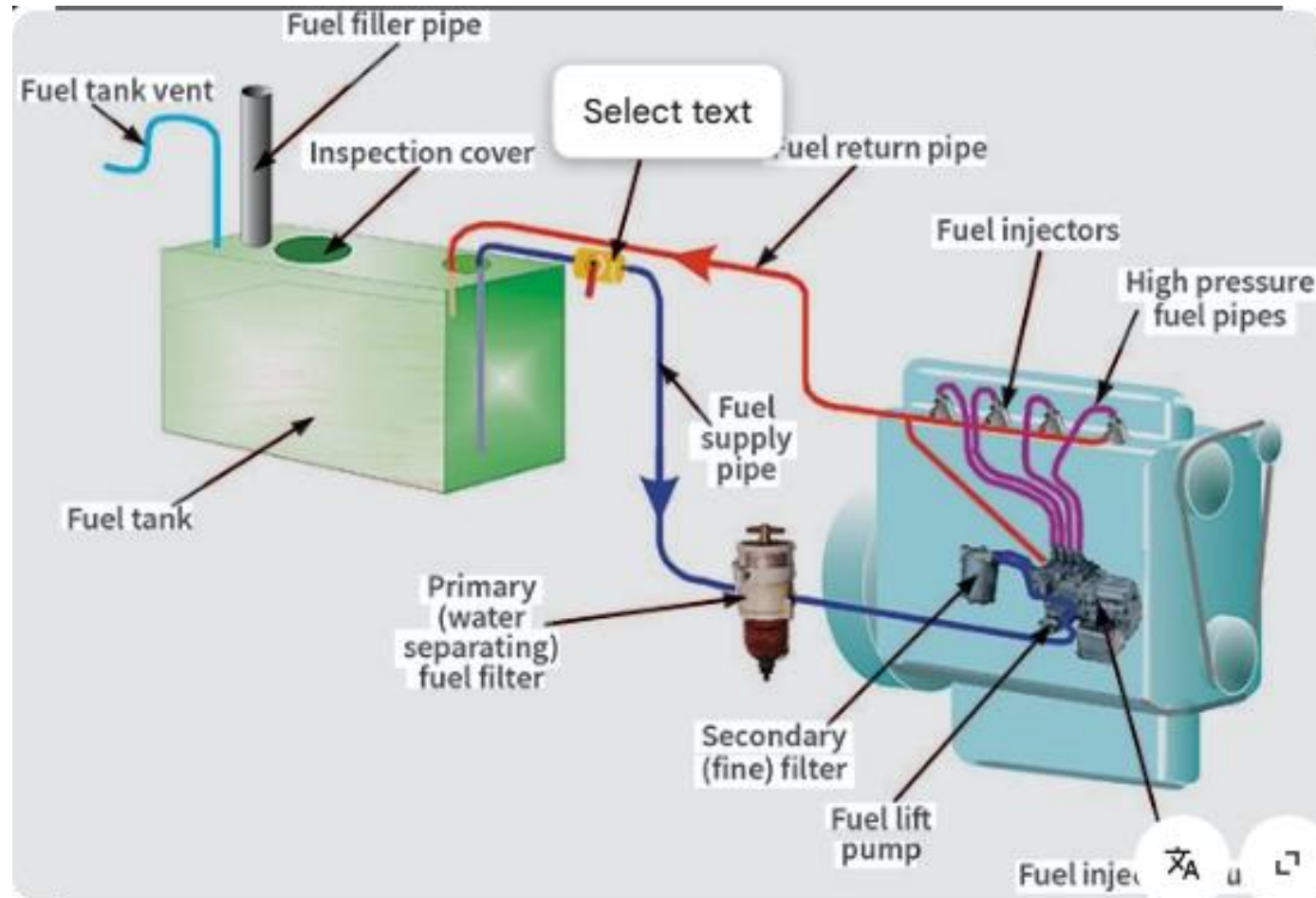
Mashburn Marine

- Marine technician 10+ years experience
- ABYC Certified
- Marine parts dealer

Overview

- Fuel
- Coolant\Seawater system
 - Oil and Fluids
 - Electrical
 - Safety

Fuel System



Fuel Filters



Fuel Filters



Fuel Filters



Checklist

- Change fuel filters both primary and secondary. On-engine secondary fuel filters are engine manufacturer specific. Check with local dealers.
- Check all hose connections and hose clamps.
- Check the conditions of the fuel hose. Cracked hoses can leak and break.
- Take note of fuel shut off valves and the on and off positions.
- Double check the location of fuel hoses in relation to moving parts.
- Check fuel tank vent for blockage.

Coolant\Seawater system



Coolant system

- Check coolant level and fill if necessary.
- Check to make sure all hose clamps are tight. Hot engines build pressure and can blow coolant lines off.
- Check the condition of all hoses on the engine.
- Make sure overflow tank is not empty or overflowing
- Do not mix different coolant types.
- Inspect the coolant tank cap (radiator cap)
- Perform a coolant pressure test.

Coolant system



Seawater System

- Check and clean the strainer basket
- Locate and exercise seacock valve
- Inspect hoses and hose clamps
- Every hose connection below the water line or containing seawater should have 2 hose clamps
- Make sure hoses are not near moving parts
- Replace the impeller

Seawater System



Seawater System



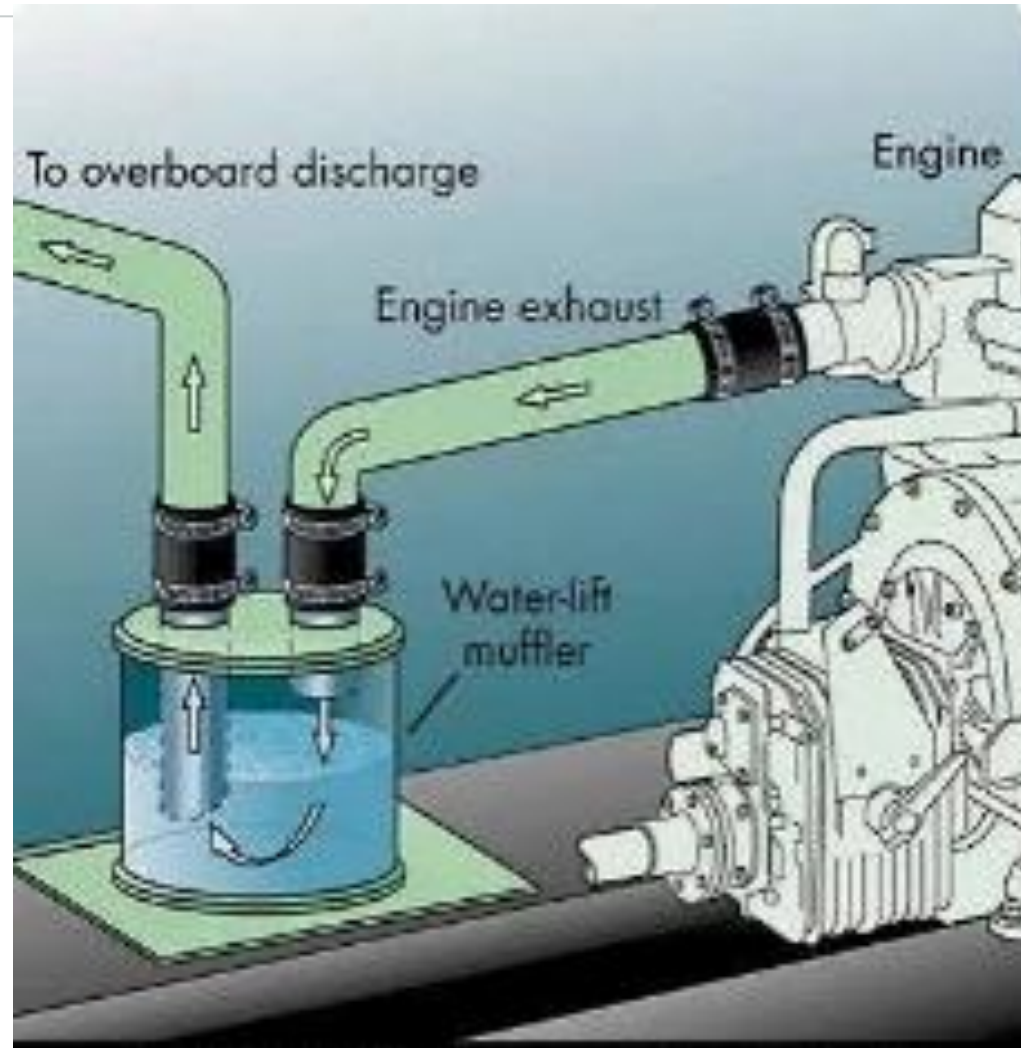
Seawater System



Sample Footer Text



Seawater System



Seawater System



Seawater System

- Prop shaft seal



Seawater System



Oil and Fluids

- Check oil level before running the engine. Every time.
- Check the Drive oil\fluid level
- Change oil\fluid and filters once a year or at 100 hours of operation
- Inspect for water in the oil
- Take note of the smell

Oil and Fluids



Oil and Fluids



Amazon.com: OEM Volvo Penta Oil Filter



Oil and Fluids

- Follow the engine and drive manufacturer specifications on oil type and amount. Typically 15w40 or SAE30 SAE40 depending on the engine manufacturer
- Drive oil can be SAE30 or ATF depending on type
- Run and check levels again

Electrical



Electrical

- Locate the battery bank and visually inspect connections and condition (corrosion swelling leaking)
- Test batteries with no charger\alternator connected
- Locate the battery switch and verify it works correctly
- Run engine and verify the alternator is working
- Locate any fuses and note where they are

Electrical

- A good battery shows 12.6-12.9 volts at rest
- Voltage below 12 volts indicates a problem
- A charging battery is 13-14 volts
- The battery should show 13-14 while the engine is running or while the charger is on
- A loose connection can look like a bad battery. Check all connections
- Take note of the battery banks (engine battery vs House battery)

Belts

- Check the alternator belt for damage or cracks
- If its too loose it will not turn the alternator and charge your battery
- If its too tight it can break the belt after a short time
- Get a spare belt

Safety

- Have a fire extinguisher easily accessible
- Have the correct fire extinguisher (class B or C or class ABC)
- Double check carbon monoxide and smoke detectors
- Double and triple check bilge pumps
- Keep a set of hose plugs in case of emergency

Spare parts

- Extra oil and fluids
- Extra coolant
- Spare fuel filters
- Spare impellers
- Spare belts
- Spare hoses
- Spare bilge pump



Tools

- Screw drivers
- Nut drivers
- Basic wrench set
- Basic socket set
- Pliers
- Wire cutters
- Flashlights



Contact information

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