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Water System

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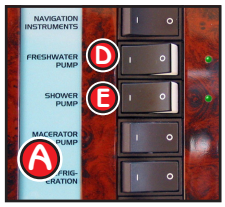
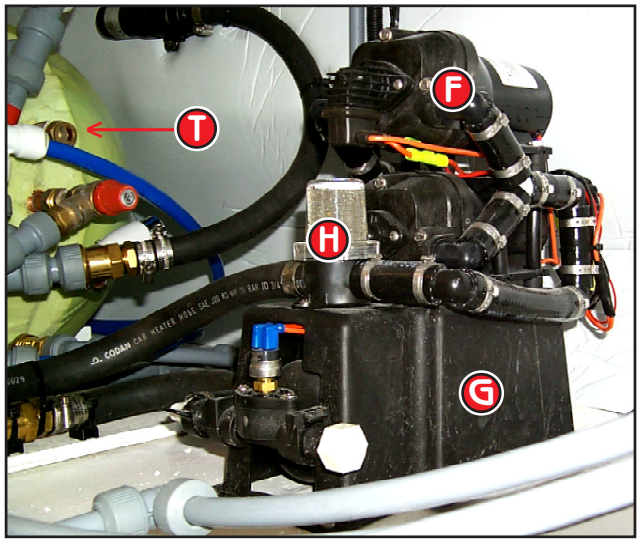
The Publisher's Statements on *page i* of this Owner's Manual apply to this chapter. Please read before proceeding.

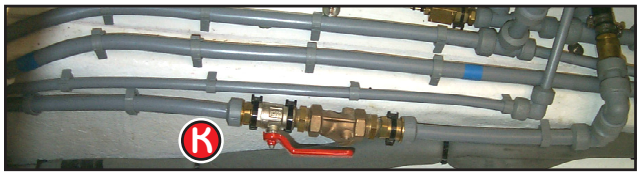
This chapter describes the major components of the fresh water system and gives information on its use. Suggestions for preserving water quality are made.

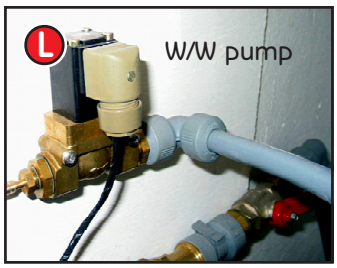
Major Topics:

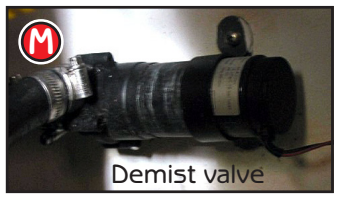
Fresh Water System











Tank Capacity:– There are two polypropylene fresh water tanks located under the floor just ahead of the engine room bulkhead. They are interconnected and together hold about 180 gallons U.S. The hot water tank T holds almost 19 gallons, for a total system capacity of 197 gallons. Tank baffles prevent surging when underway, resulting in improved vessel stability.

Water Fill:– The tank is filled by dockside hose at deck fitting B. A sensor monitors water level in the tank, which is displayed on the Wema gauge C on the Salon helm panel. The switch for the WATER PRESSURE PUMP D is on the 24 V breaker panel, A. The pump MUST be put off if the vessel is left for more than a few hours. An adjacent green light glows when the pump is on. Switch E for the shower sump, which also has a green, light must always be ON when the vessel is in use.

Filters:– It is prudent to filter all water coming aboard. When refilling, a filter should be placed *after* the shore water faucet and it should have a dirt / rust filter, combined with a charcoal filter. Use only an FDA-approved hose (they are usually white) of good quality. Some cheap hoses use organic plasticizer that makes water taste sweet if the hose is left lying in the sun; it will also foam coming out the vessel's taps.

Water Pump:– Access to the water system is below the floor hatch and removable storage box J in the galley. A 24 V Jabsco ParMax 4 complete water system incorporates a water pump F. It is a 3.8 gpm, self-priming, four-chamber diaphragm type connected to a 1 litre accumulator tank G with internal bladder. This keeps up line pressure to smooth out water flow and reduce pump starts when a faucet is opened for only a few seconds. Thus it reduces pump motor and hammer noise. The pump has an integral pressure switch that cuts in about 20 psi and shuts off about 40 psi @ 3.8 gpm. An integral check valve protects it from city water high pressure. Water pump can be run dry without harm.

Water entering the pump goes through a strainer H that should be inspected regularly for debris, particularly when the vessel is new and some debris could be in the piping system. The gray plastic tubing used is FDA-approved for food and will not add taste to the water.

Valve K is the main shut-off valve to the fresh water pump.

Windshield demister/washer:– The demister valve M controls hot water supply to the demister unit for the windshields.

The small water pump L is the cold water supply to the windshield washers. These are mounted on the side of the panel near the hot water tank under the galley hatch J.

Hot water

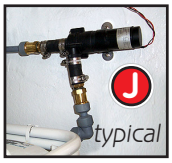
Water heater tank, L:– This is under the access hatch in the galley floor, aft. Capacity is approx 19 gal and it is rated 240 VAC, 1 kW. The breaker switch H is on the 240 V section of the helm console panel, marked WATER HEATER. Valve S is the main shut-off to the fresh water pump.

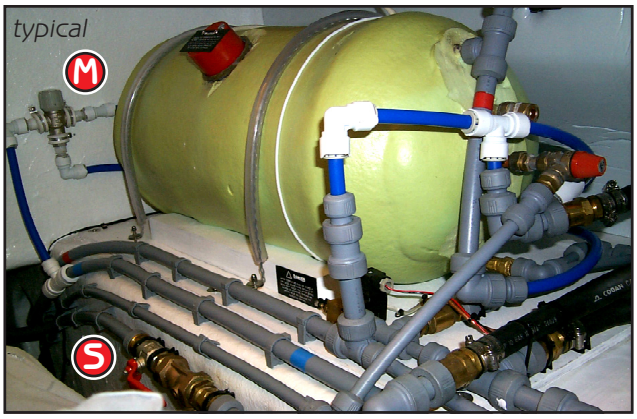
Mixing Valve, M:– Water tank temperature is very high. For safety, and to effectively increase system capacity, heated water going to the various hot faucets flows through valve M where it is mixed with cold water. Thus water temperature is tempered to a safe level of 120° F. NEVER attempt to adjust the water temperature settings.

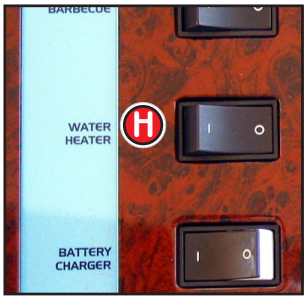
Faucets:– Domestic-type faucets are fitted to washbasins, galley sink, and transom shower T. A deck and anchor wash R is normally installed to use fresh water from the vessel's supply. Optional is a seawater pump for seawater washdown.Bridge sink tap P folds, and should be pushed down before the lid is closed.

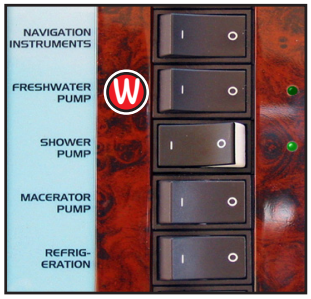
When handling lines the aft starboard sink lid Q must be down. Do NOT leave this lid up if it is windy or underway.

Demister pump & valve, J:– A demister pump and valve J draw on the hot water supply. When the demister is activated hot water goes to the demister unit to heat air which then blows onto the windshield. Some vessels use a different system which draws hot air from the aircon/heating system.









Switch off Water Heater, H, and Freshwater Pump, W, (or shore water) when leaving the vessel. Leave Shower Pump on if running A/C.

Shower door lock

Lock doors when underway.Make guests aware of the door lock.

Shore Water Pressure Supply

Your Viking Sport Cruiser 61FY has the added convenience of being able to connect to shore water and use water directly from the shore tap beside the vessel. This gives you an unlimited water supply, and at a higher pressure than from the internal fresh water pump.

Dock-side Pressure Issues:– The supply hose to deck fitting T must be rated for high pressure, and Food & Drug Administration (FDA) approved. Again, it would be prudent to install a water filter attached to the dock faucet, and the water supply should go through it before entering the input fitting T on the vessel.

At large marinas, it is common to see dock water pressure above 100 psi but usually boat hose is rated for just 80 psi. For this reason, some owners connect a pressure reducing valve between the faucet (or filter) and the hose. Typically, the regulator is factory-set to maintain water pressure coming into your boat at 40 psi. Regulators cost only about $40.

On-board Pressure Protection:– To protect on-board plumbing in the event of over-pressure dock water, VSC install a pressure reducing valve, U, inside the vessel. This is adjustable, but typically it reduces incoming water to about 45 psi – a setting higher than the Jabsco pump can deliver (toilets will flush with enthusiasm!).

A one-way valve V coupled to it, prevents fresh water from the Jabsco pump coming out of input fitting T.

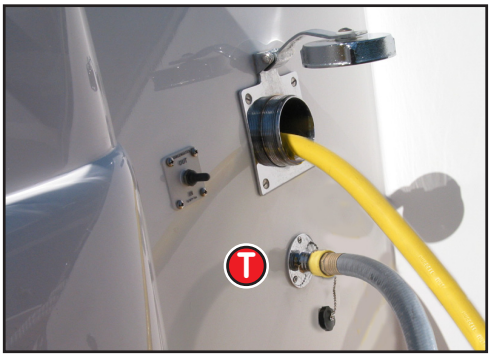
Using dock water ⚠ Cautions

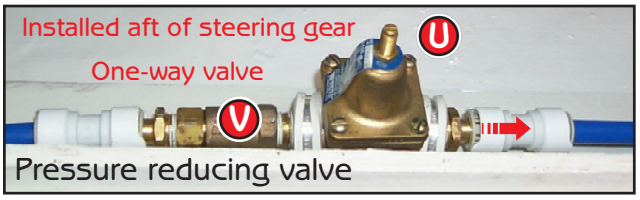
- Switch off the water pump (W opposite) when connected to dock water.
- Close the dock faucet whenever you leave the vessel – even for a few hours.
- When leaving the vessel for some time remove and store the dock supply hose.

If a fitting or a faucet should leak when the system is pressurized, dock water will continue to enter the vessel. If a faucet should drip and the sink is closed, water would overflow and flood the bathroom, so leave sink drains open.

To check the system for leaks

Switch off the water pump and the dock water system overnight, or for 24 hours. Ensure no faucets are opened. After that open a faucet and see if you still have water pressure. Alternatively, a simple water pressure gauge attached to a faucet will quickly indicate if the system is leaking.





Hepworth fittings

This semi-rigid pipe system used by VSC features couplers which are easy to dismantle. When reassembling, push the pipe and fitting firmly together through the O-ring and turn the nut as far as it will go. Do not over-tighten; and always check for leaks.

Some commonly-used water treatment products

Jasco Sweet Water

This liquid helps to remove the taste of fiberglass, plastic or rubber from water for fresh-tasting drinking water.

AquaTabs

These tasteless and odorless tablets purify water. Use them whenever you doubt water purity – and to clean fruits & vegetables.

Aquabon

Oxidizes odoriferous material in water. It takes out all bad tastes including sulfur, chlorine, metal and plastic. Inhibits algae formation. Effective in heat to 100°F.

Note:- Above products are available from West Marine and other marine supply stores.

Winterizing

ALL systems must be drained, including the hot water tank. A small pump can then fill the system with non toxic antifreeze. Each faucet must be opened until antifreeze comes out. This should be done ONLY by yard personnel familiar with the vessel.