



R-21

Owner's Manual



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CONGRATULATIONS









Welcome to the Ranger Tugs family and thank you for purchasing the Ranger R-21. Designed to provide maximum comfort and versatility, this trailerable boat proves that cruising can be as much about the journey as the destination.

The Ranger Tug family has a passion for boating. We are committed to continuous process improvement in all areas that affect our customer's satisfaction with our products and providing great customer service.

ABOUT THIS MANUAL

This owner's manual provides you with the specifications and locations of the equipment aboard your vessel. It also lists additional documentation provided with the R-21 that will supply more in depth information. Please take the time to review all manuals to become better acquainted with your R-21. Both standard and optional equipment will be called out. Please utilize information for the correct equipment on your vessel.

SYMBOL GLOSSARY

	Attention! – Important Operating or Maintenance Instructions
	Attention! – Electrical Shock Hazard
	Fresh Water
	Black Water
	Fuel
	Standard Equipment
	Optional Equipment
	Hints

SAFETY

Safety is always a concern at Ranger Tugs. Please read all manuals to insure that equipment is used in a safe manner. We highly recommend attendance in a Coast Guard approved boating safety course. Such courses are available from the Coast Guard directly or from boating organizations. Owners should have annual inspections to ensure that all safety equipment is current.

SPECIFICATIONS

(Subject to Change Without Notice)

Boat & Anchor Roller & Swim Step	24' 0"
Length on optional trailer	28' 0"
Length Overall (LOA)	21' 0"
Beam	6' 8"
Draft	24"
Displacement	2,750 lbs
Fuel Capacity	18 US Gal
Fresh Water Capacity	10 US Gal
Black Water Capacity	7.9 US Gal
Sleeping Capacity	2 Adults
V-Berth Sleeping Length	6' 5" minimum
Cabin Interior Height	6' 3" minimum
Water⇌Bridge Clearance w/ No Mast	6' 8"
Water⇌Bridge Clearance w/ Mast Deployed	10' 9"
Height on Trailer w/ Mast up	13' 7"
Height on Trailer w/ Mast Folded	10'
Bilge Pump	12V, AUTO, 750 GPH
Stereo	AM/FM, MP3, CD
Stove	Butane

EQUIPMENT LOCATION

STARBOARD FITTINGS

STD

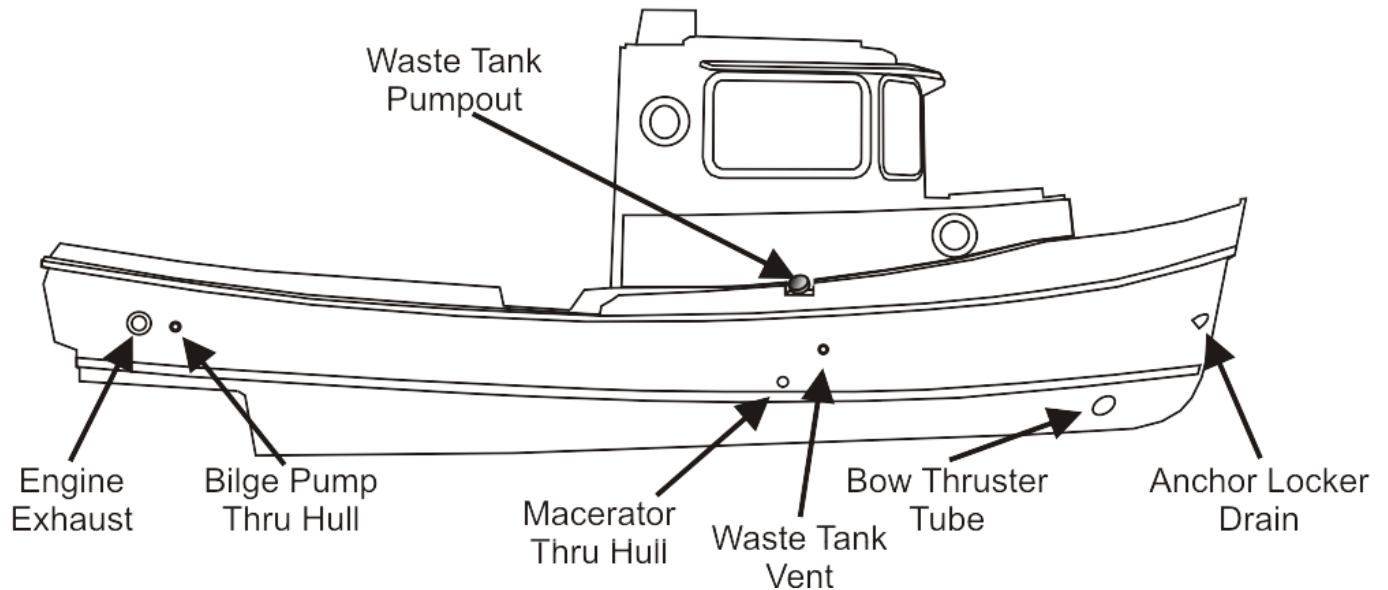
Engine Exhaust Outlet, Anchor Locker Drain, Bilge Pump Outlet

OPT

Macerator Outlet, Waste Tank Vent, Bow Thruster Tube



Keep all vents, drains and exhausts clear of any obstructions to ensure proper performance of each system.



PORT FITTINGS

STD

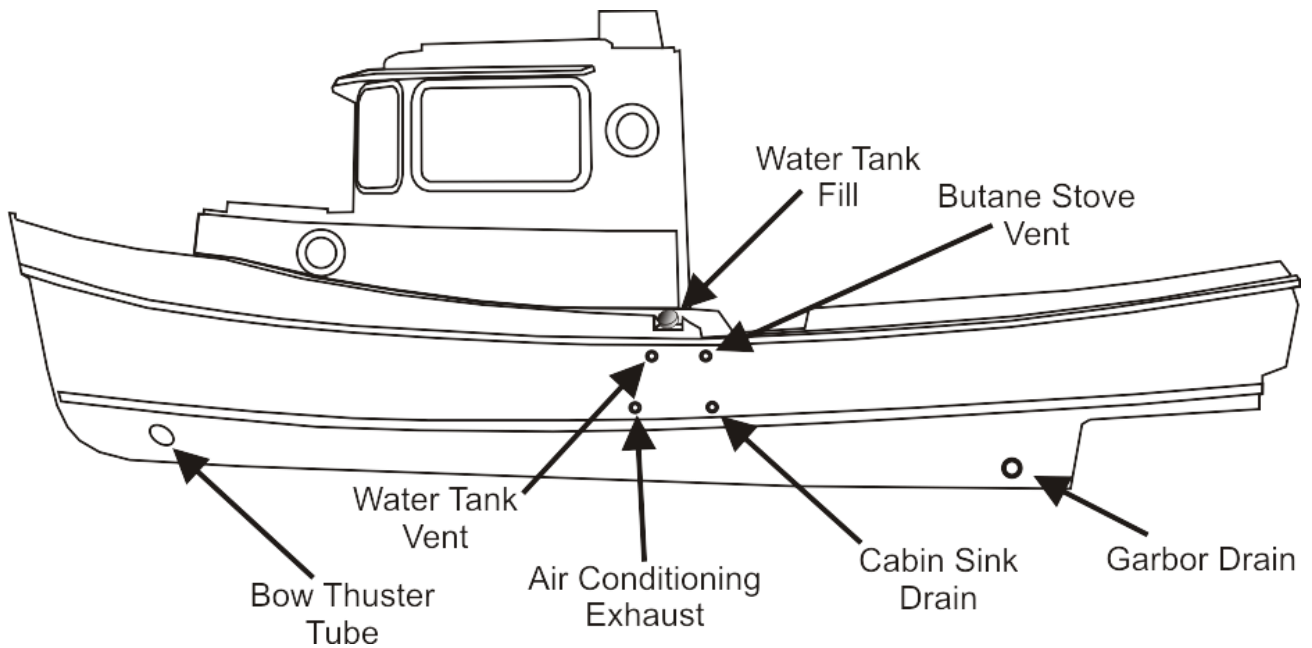
Water Tank Vent, Cabin Sink Drain, Butane Stove Vent, Garbor Drain

OPT

Bow Thruster Tube, Air Conditioning Outlet

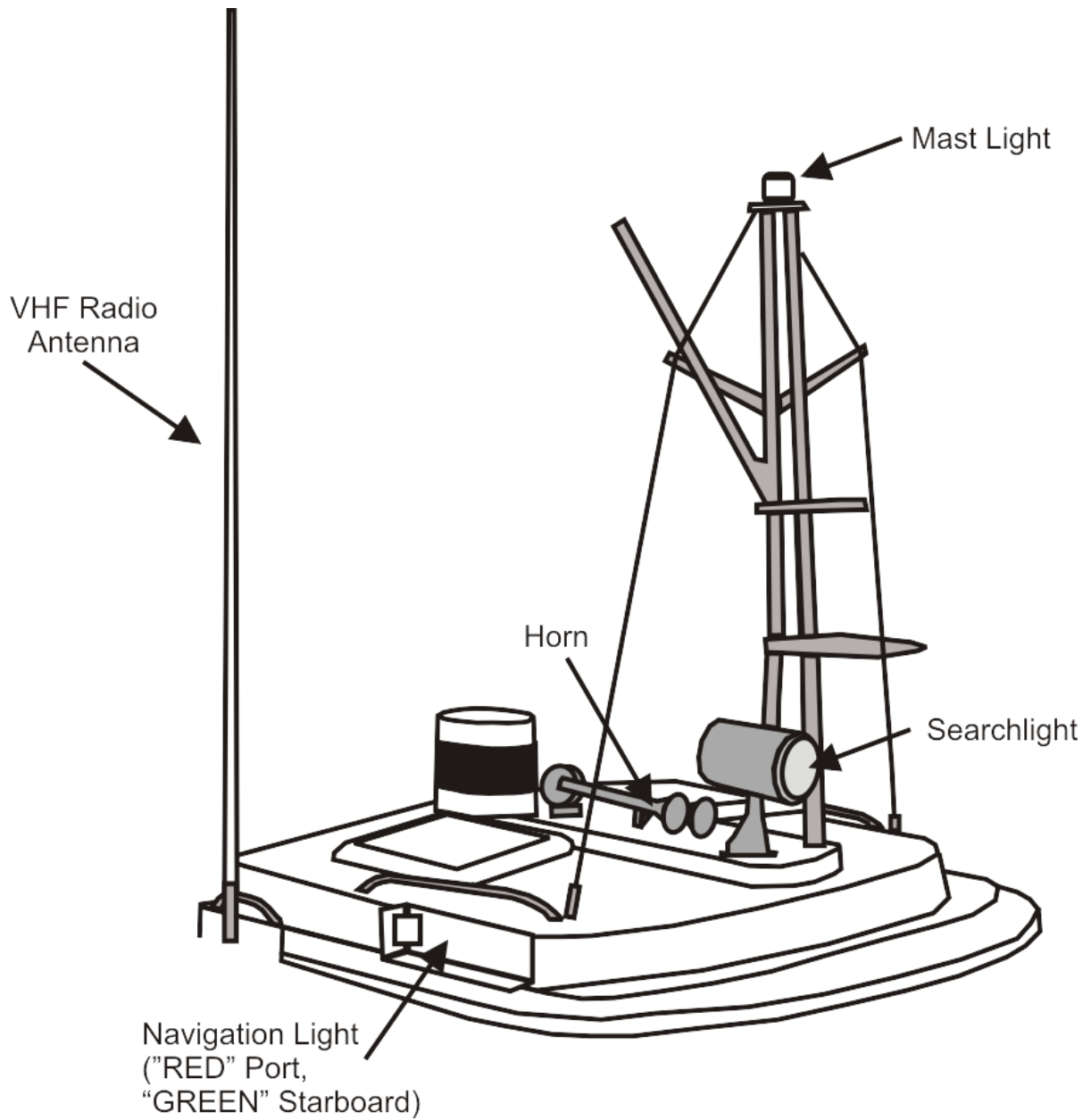


Keep all vents, drains and exhausts clear of any obstructions to ensure proper performance of each system.



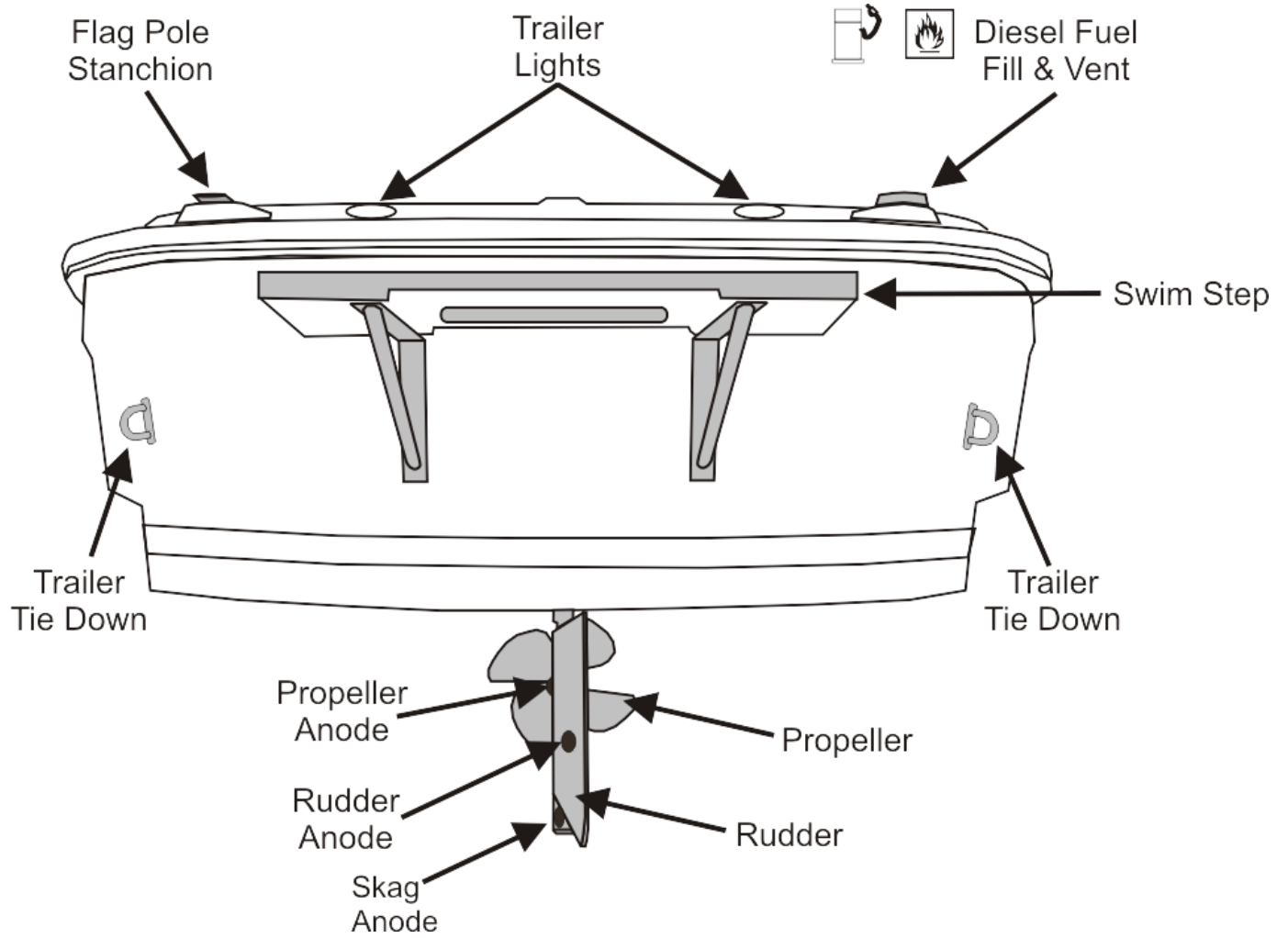
MAIN CABIN TOP DECK COMPONENTS

STD



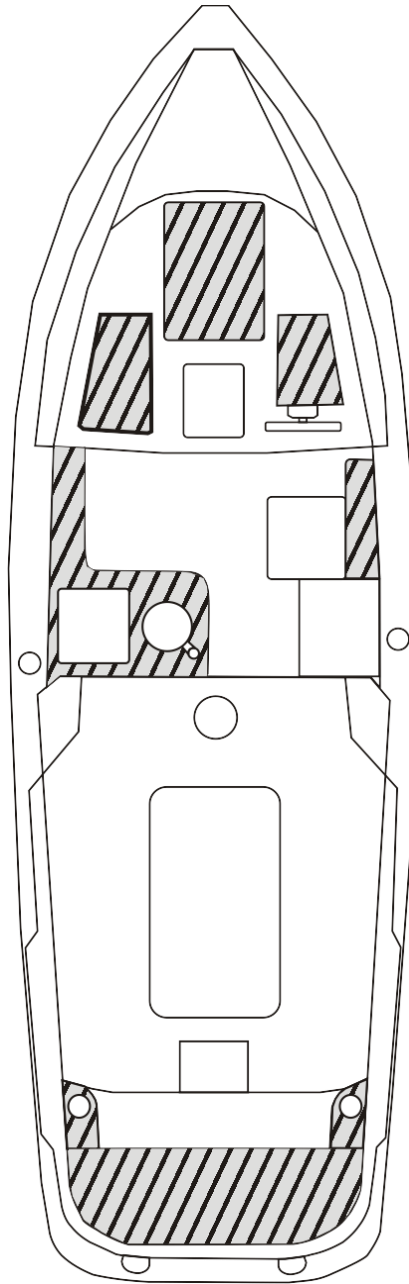
STERN COMPONENTS

STD



AVAILABLE STORAGE

STD



FUSE LOCATION & VALUES

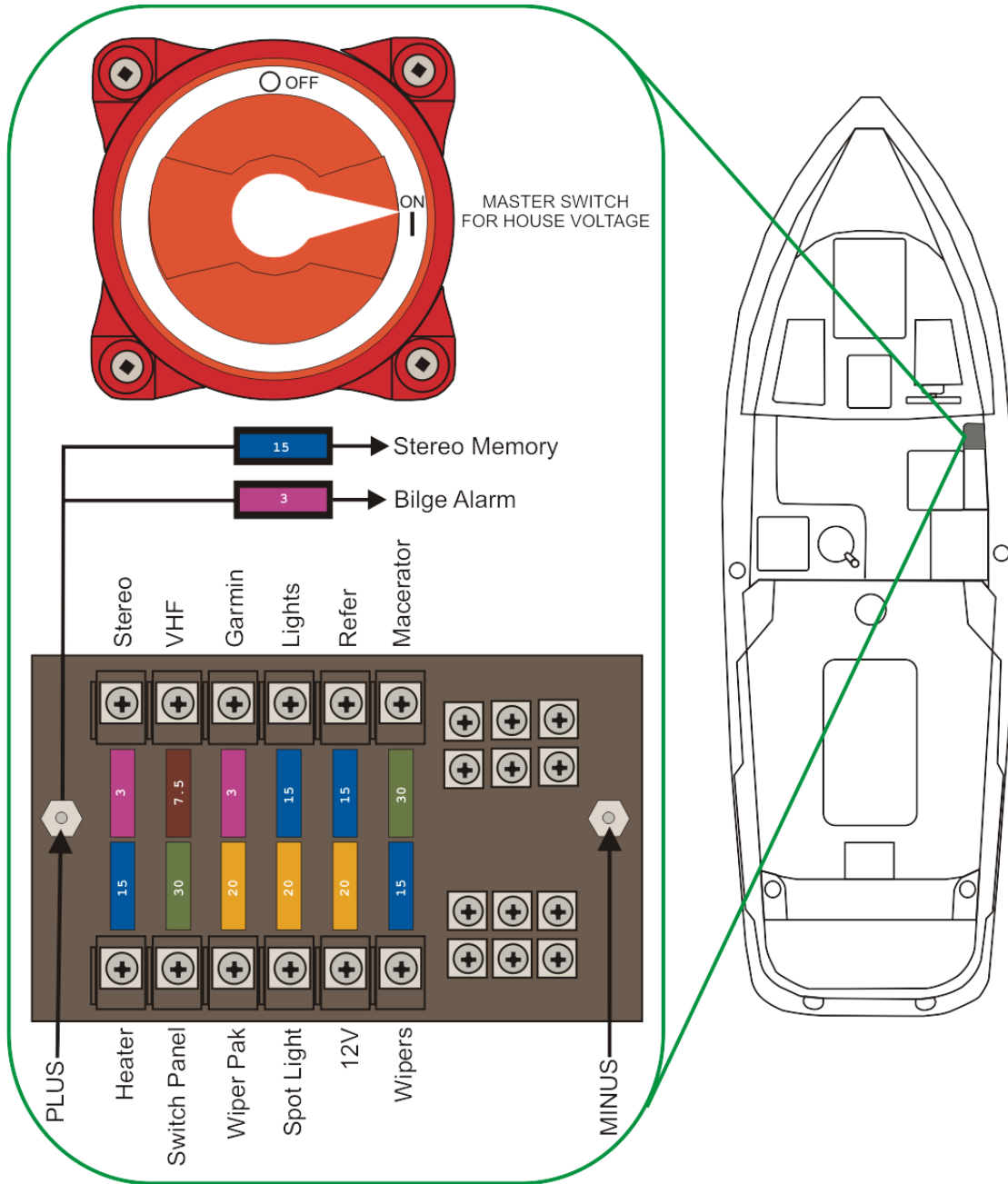
STD



Use appropriate caution when working with electrical components.



Located in cabinet next to the helm.

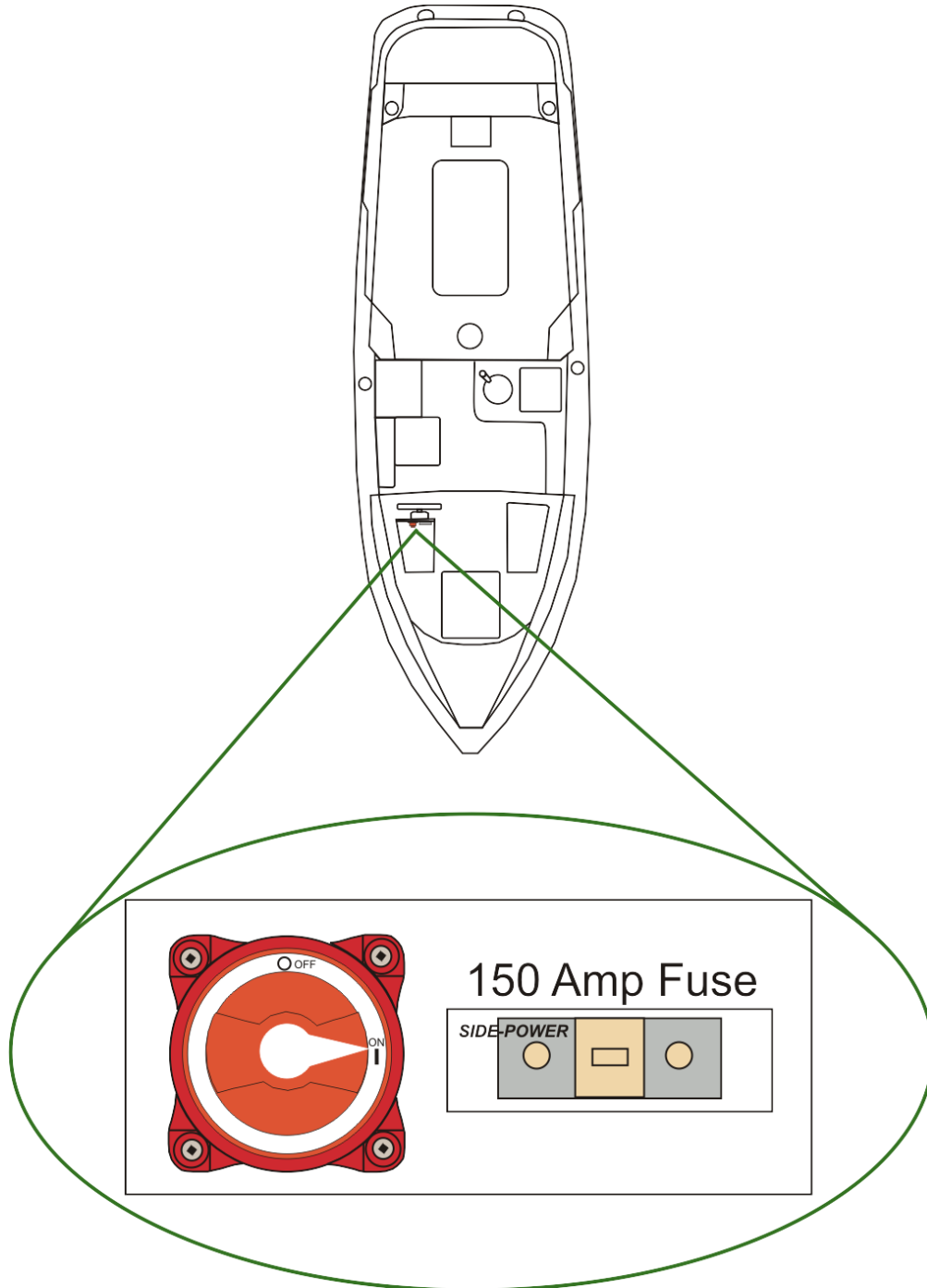


THRUSTER MASTER SWITCH & FUSE

OPT



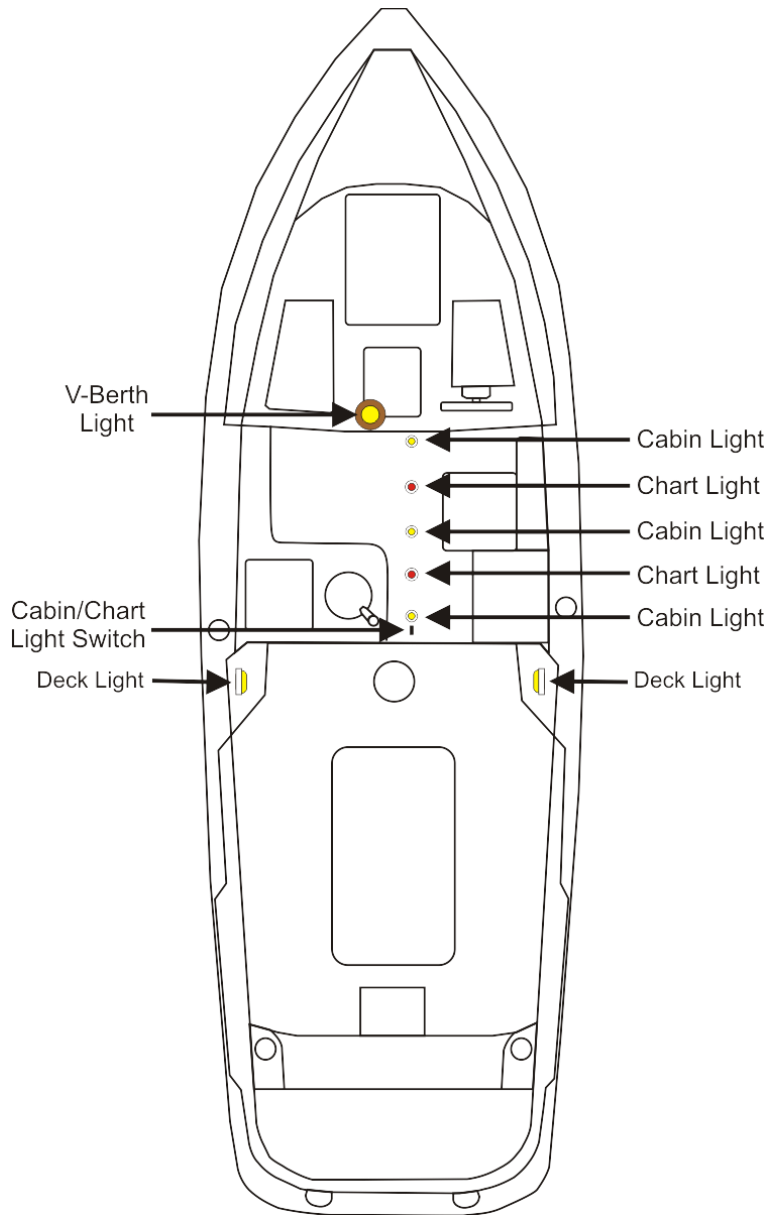
Use appropriate caution when working with electrical components.



MAIN CABIN AND COCKPIT LIGHTS

STD

💡 Deck Lights switch is on the DC Distribution Panel.
Switches for remaining lights are on their fixtures.



BATTERY COMPARTMENT

STD

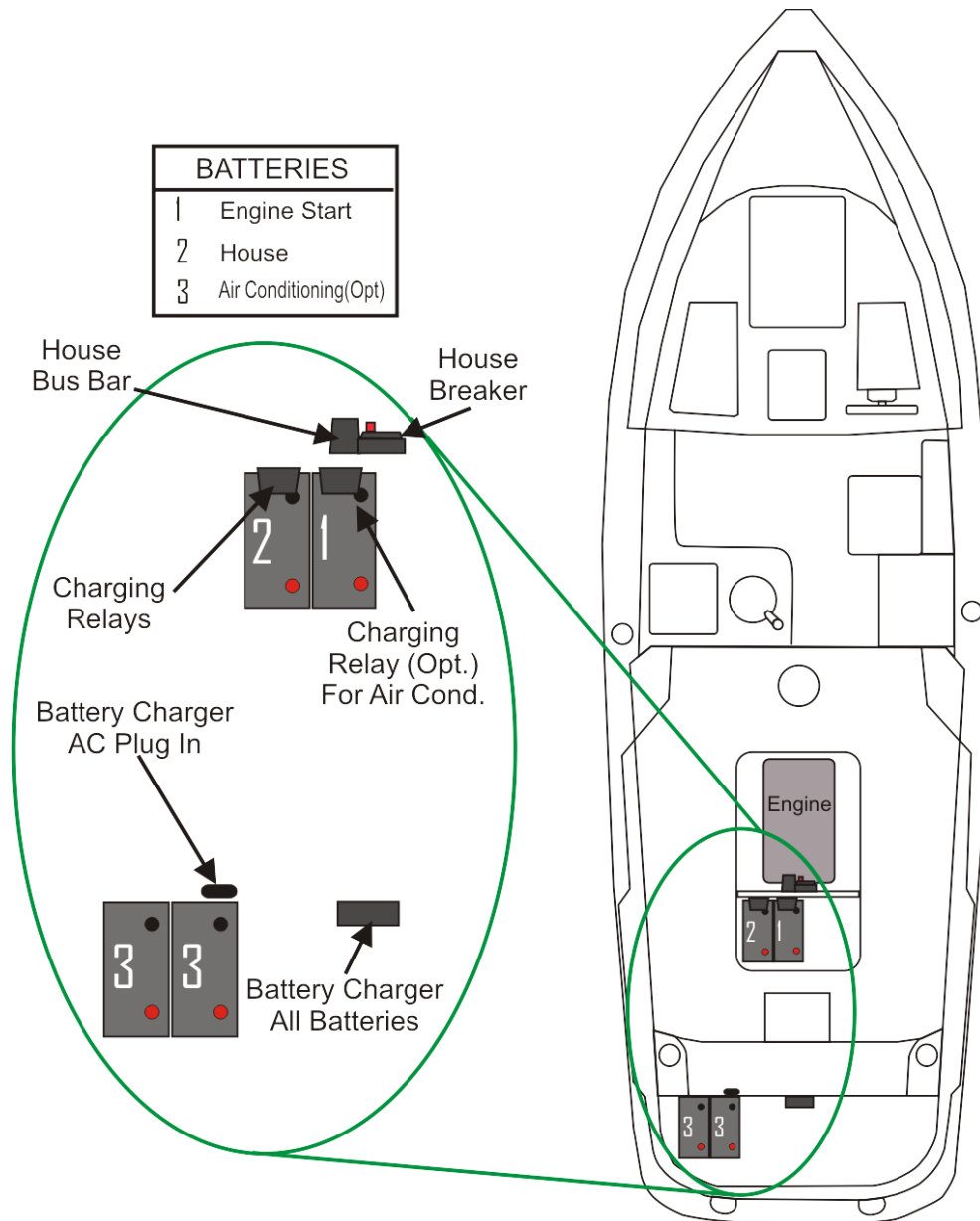
House Bus Bar, House Breaker, Charging Relays, Battery Charger AC Plug In

OPT

Air Conditioning battery bank and 2nd charging relay

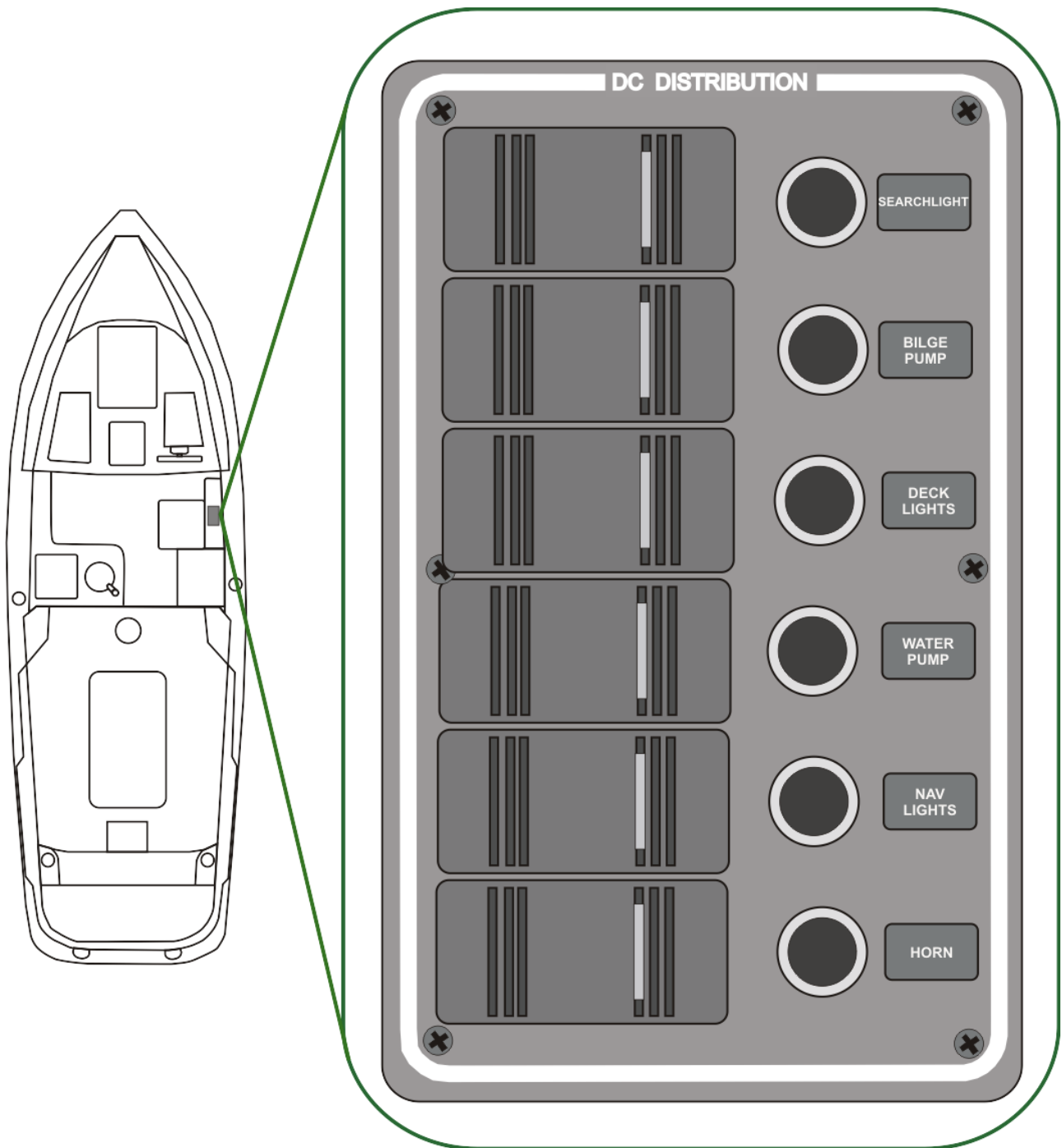


Use appropriate caution when working with electrical components.




DC DISTRIBUTION PANEL

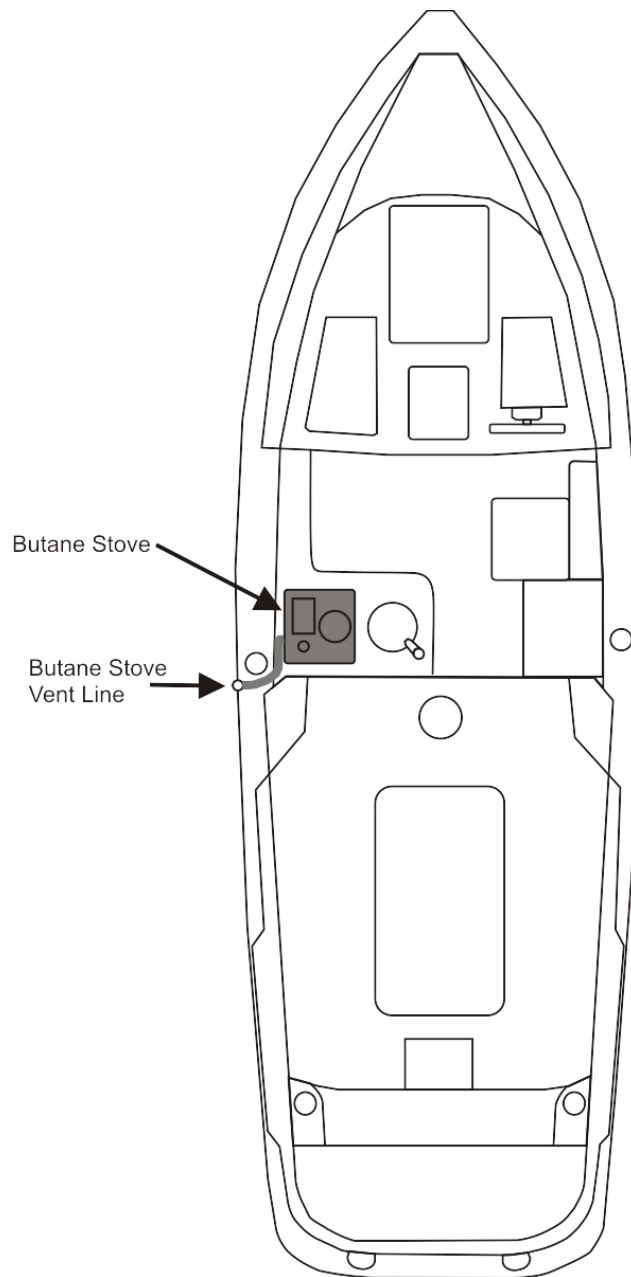
STD



STOVE

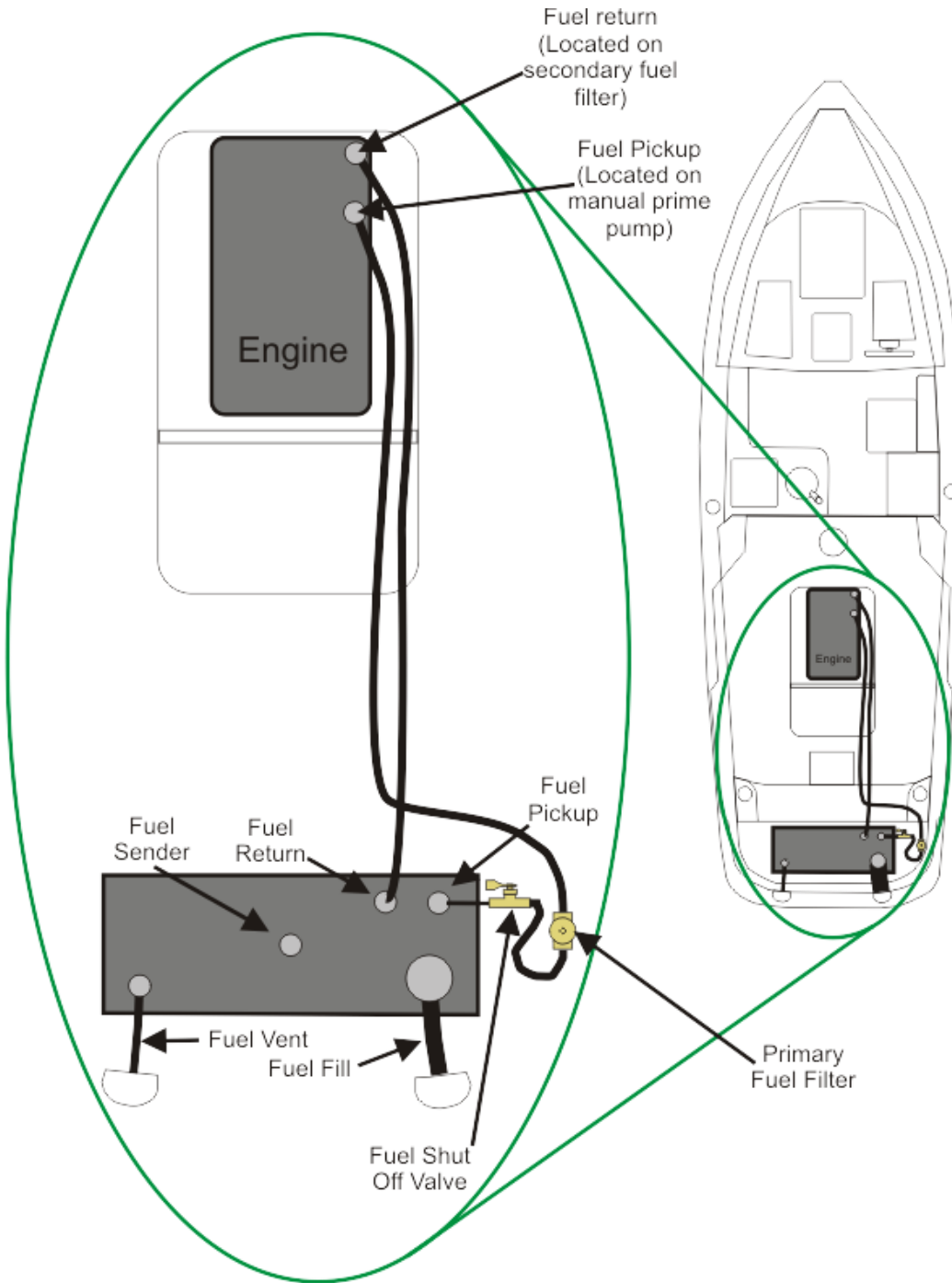
STD Butane Stove

 Use appropriate caution when handling and storing the butane canister.



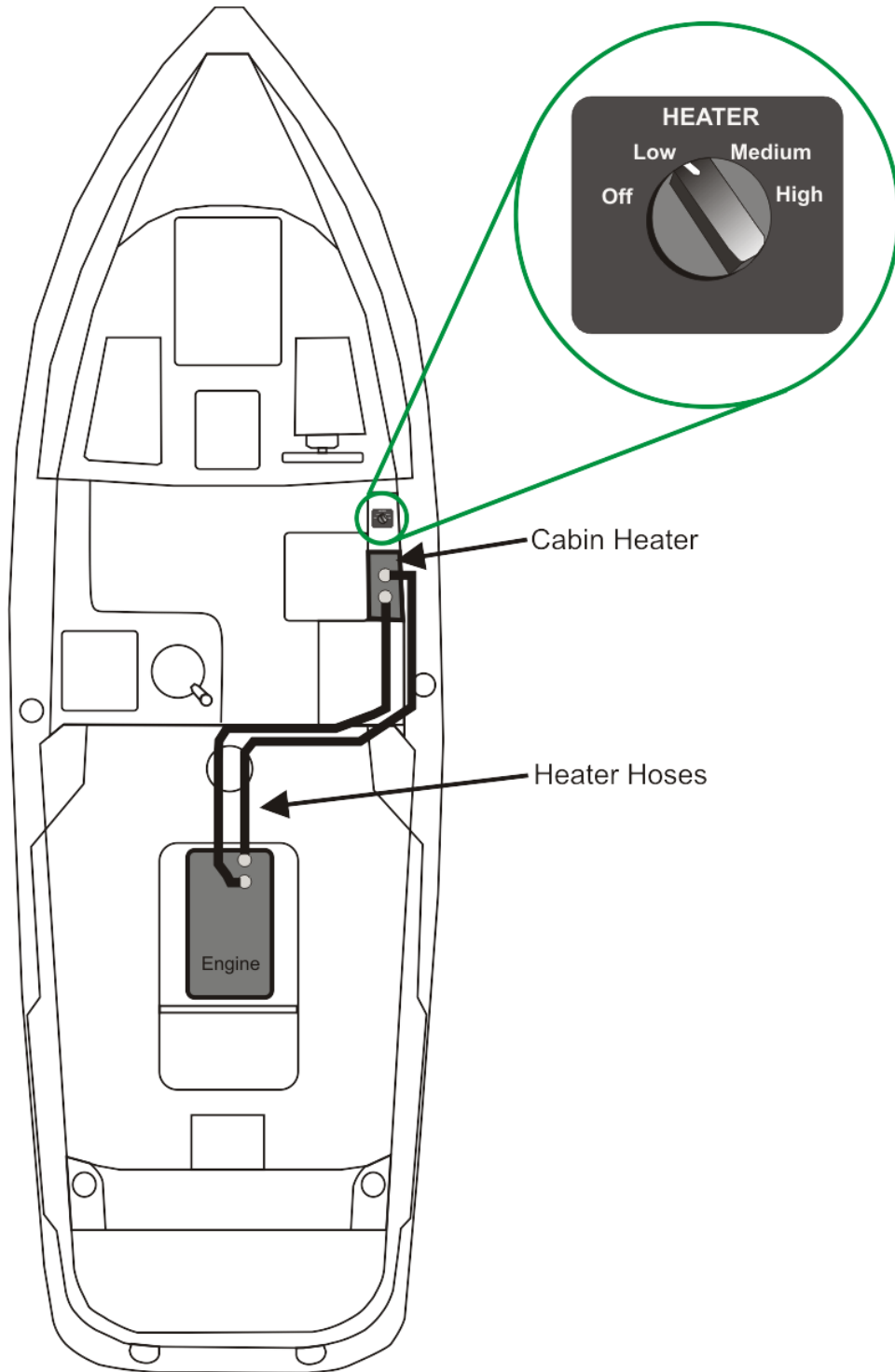
ENGINE FUEL SYSTEM

STD



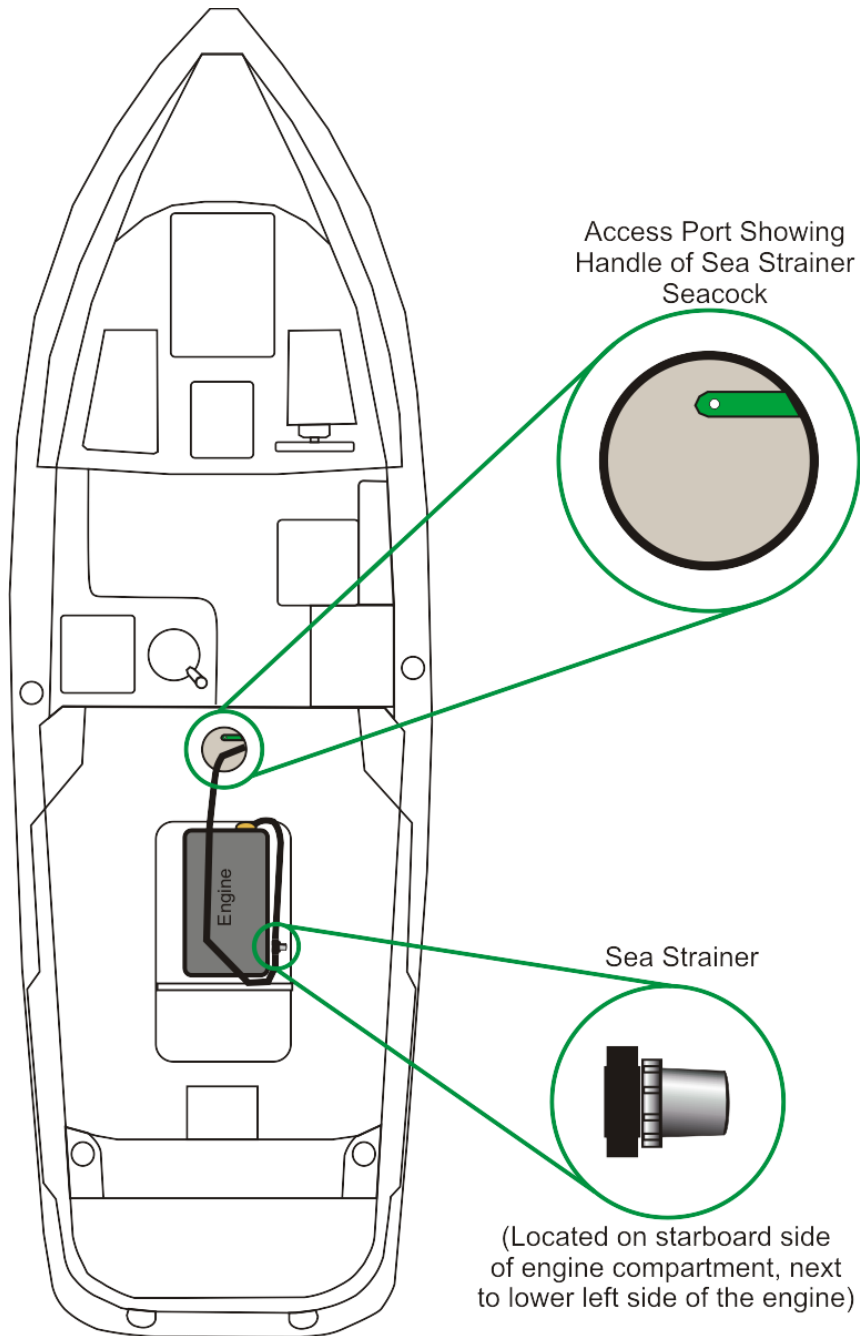
CABIN HEATING SYSTEM

STD

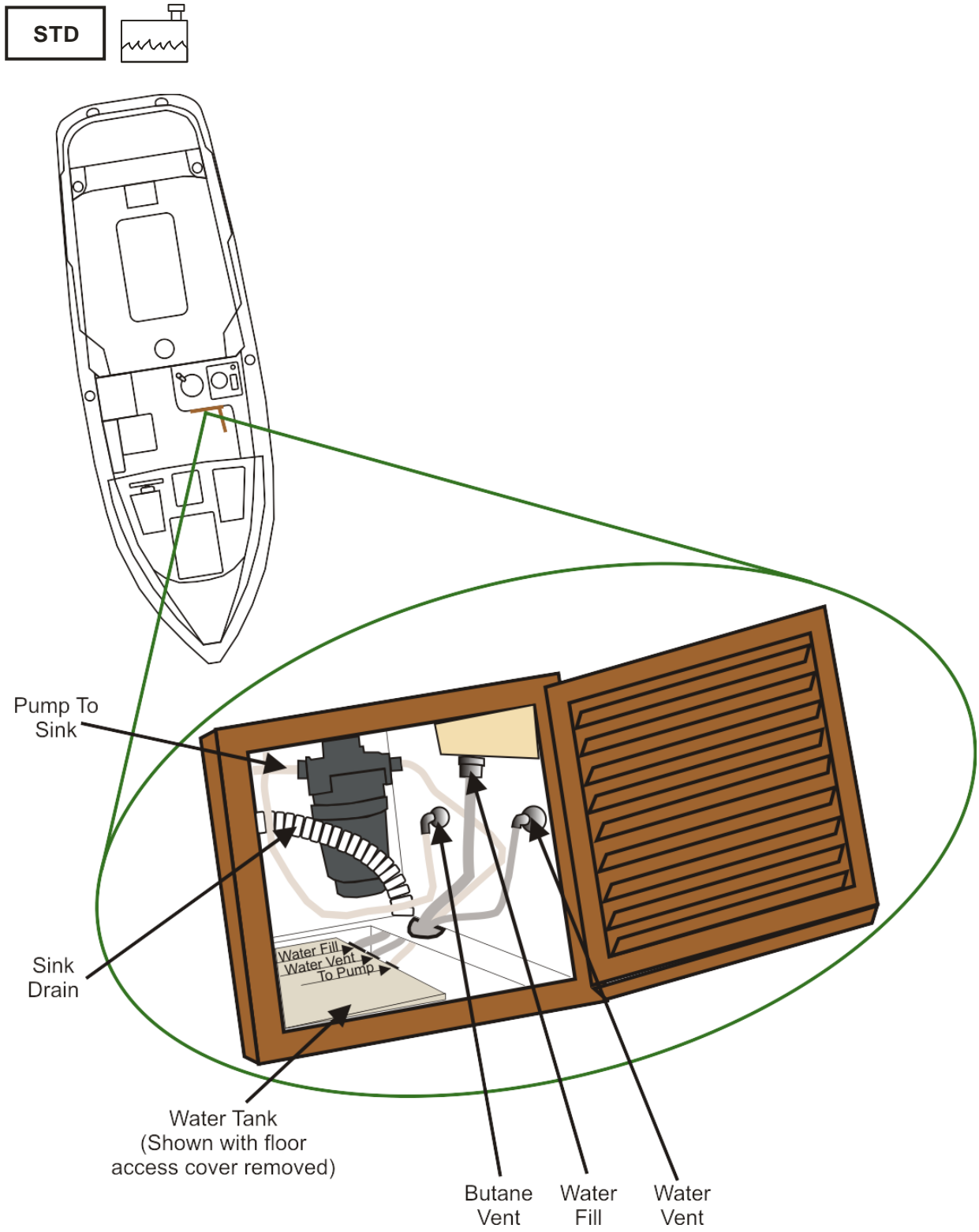


SEA STRAINER SYSTEM

STD

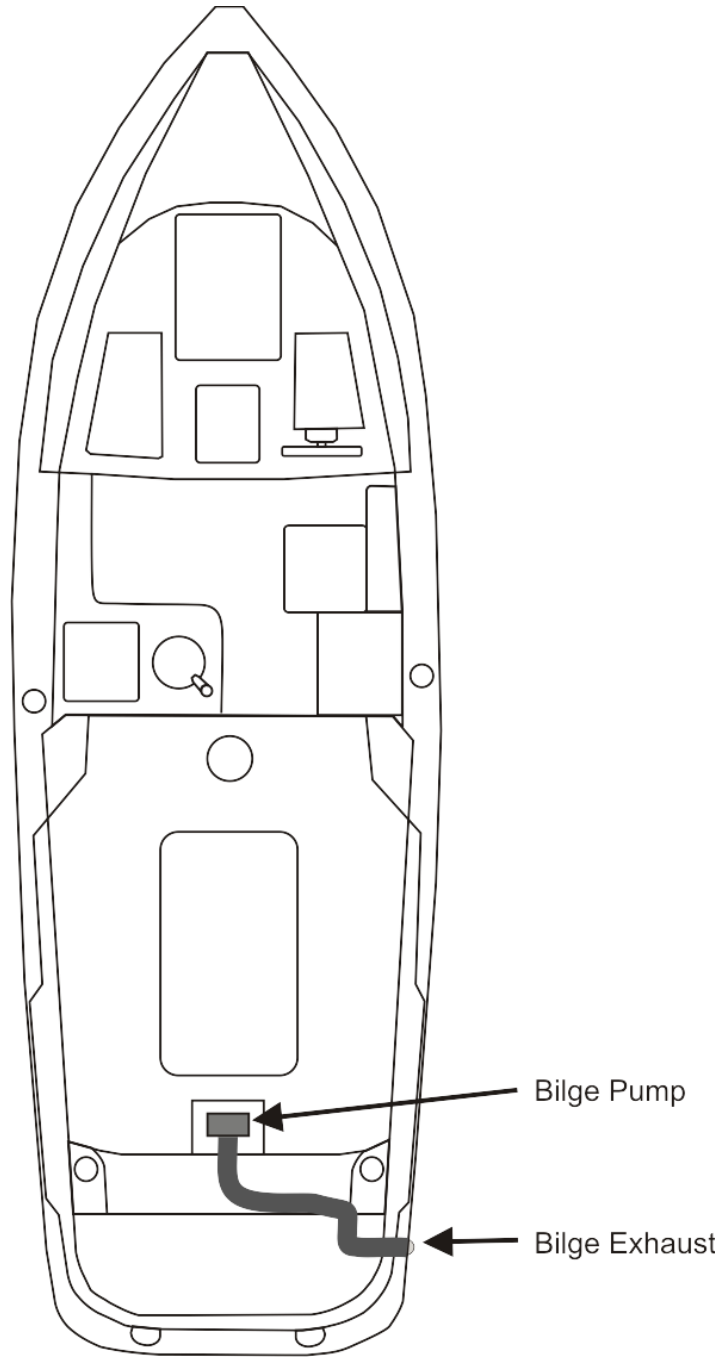


UNDER SINK PLUMBING SYSTEM



BILGE PUMP SYSTEM

STD



HEAD & MACERATOR SYSTEM

OPT



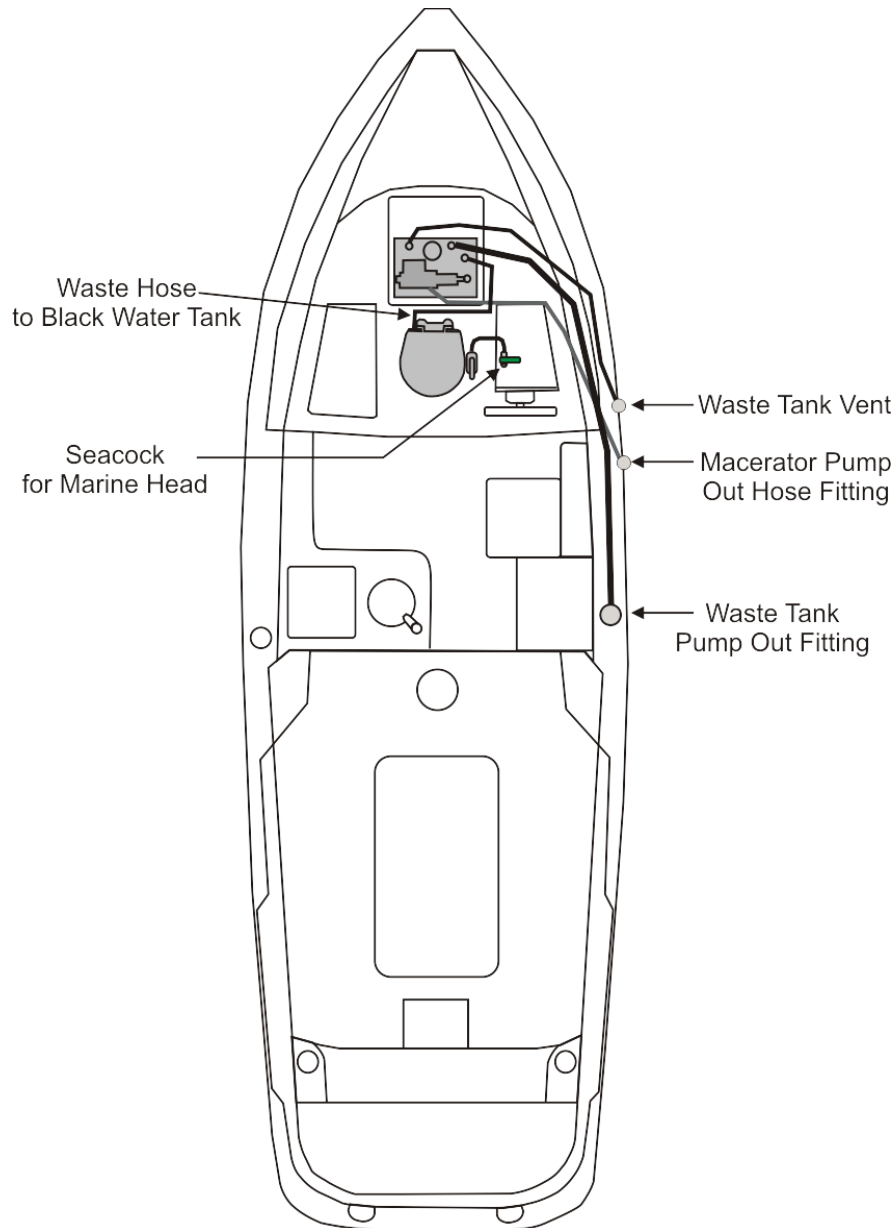
Head, Tank with Pump Out and Vent



Boat owner is responsible for following all applicable laws when using the macerator system to pump out into the surrounding waters.



Waste tank pump out stations are widely available. Please follow the directions carefully for the pump out equipment you are using to avoid damage to the waste system.



MAST SET UP AND TAKEDOWN


MAST SET UP PROCEDURE

1. Remove the two black plastic wing nuts from the mast base.
2. Remove the two mast tie down cables from their storage positions in the roof clips.
3. With the mast tie down cables still loose, raise the mast off of the stainless steel support bar.
4. Secure the stainless steel retaining bar in the appropriate clip attached to the roof top.
5. Raise the mast to its full extension and ensure that it fits correctly over the mounting studs on the roof mounting plate.
6. Attach the two black plastic wing nuts to the mounting studs and hand tighten securely.
7. Attach the two mast tie down cables to their appropriate clips on the port and starboard side of the roof.
8. Make sure the mast tie down cables are adjusted properly.

MAST TAKE DOWN PROCEDURE

1. Remove the mast tie down cables from their clips on the port and starboard side of the roof.
2. Remove the two black plastic wing nuts from the mast base mounting studs.
3. Carefully lower the mast onto the stainless steel support bar.
4. Attach the black plastic wing nuts back onto the screws on the mast mounting plate and secure them for storage by hand tightening.
5. Attach the two mast tie down cables to their storage positions in the roof clips.
6. Recommend securing the mast with a tie down.

CARE AND MAINTENANCE

 The following checklists are examples and are not all inclusive and are provided only as a guide. Please customize to your personal needs. Consult your engine and trailer user manuals for additional information.

EXAMPLE OF A PREPARATION FOR THE ROAD CHECKLIST

TOW VEHICLE – PRIOR TO USE

- Test Lights.
- Check brakes.
- Check tire pressure and condition.
- Check hitch related electrical connections.

TRAILER – PRIOR TO USE

- Check registration
- Check rollers and bed rails.
- Check wheel bearings and lubricate as required.
- Check winch.
- Test electrical connection and lights.
- Check tire pressure and condition.
- Check safety chains.
- Check boat straps.
- Check braking system.
- Check hitch for proper connection and lock down.
- Install safety chains (cross under hitch).
- Remove tire blocks.
- Check lugs on all wheels to ensure correct torque spec.

BOAT – PRIOR TO USE WITH TRAILER

- Lower mast.
- Lower VHF antenna.
- Secure the Bimini awning frame.
- Raise and secure swim platform ladder.
- Set all switches and breakers to the OFF position.
- Close and secure all windows, ports and vents.
- Lock cabin.
- Center rudder.

EXAMPLE OF A SPRING PRE-LAUNCH CHECKLIST

CLEANING:

- Remove debris from scuppers and scupper drains.
- Clean hull using a mild biodegradable detergent and then wax.
- Clean topsides and decks using a mild biodegradable detergent and then wax.
- Clean and polish all bright work.
- Clean and oil teak.
- Clean windows, ports, and hatches.
- Clean bimini cover.
- Check and clean anchor, rode, and anchor storage compartment.

INSPECTION:

- Check spare parts and tools and replace as necessary.
- Check wiper blades.
- Check swim platform.
- Inspect and test trim tabs.
- Check condition of bottom paint.
- Check windlass.
- Verify electronics for correct operation.
- Check all inside and outside lights.
- Macerator Y-Valve in proper position and secured.
- Inspect and verify position of all sea cocks and shut off valves.
- Check alarms for proper operation.
- Check fluid levels.
- Check bilge drain plug.

SAFETY EQUIPMENT

- Sound signaling device.
- Check flares and their expiration dates.
- Check personal floatation devices.
- Check fire extinguishers and their fill dates.
- First aid kits.

GALLEY:

- Check stove for proper operation.
- Check everyday utensil stock.

DOCUMENTS:

- Registration sticker.
- Insurance papers and Passports.
- Boat Inspection sticker.
- Charts and float plan forms.

EXAMPLE OF WINTER STORAGE CHECKLIST

GENERAL MAINTENANCE:

- Fill Fuel Tank and add a fuel stabilizer.
- Empty and clean black water tank.
- Empty fresh water tank use a **non-toxic** antifreeze per manufacturer's directions.
- Winterize black and fresh water tanks as necessary based on weather.
- Check bilge area for oil and for proper operation
- Check zincs and replace as necessary.
- Check impeller.
- Check and clean water strainer.
- Clear barnacles and debris from hull fittings.
- Trickle charge batteries every 30-60 days.
- Vent boat to prevent mildew.
- Check trailer tire pressure and condition.
- Check trailer braking system.
- Check trailer bearings.

ENGINE:

- Flush sea strainer system with fresh water.
- Check all fluid levels.
- Check all hose fittings.
- Check engine maintenance requirements.
- Inspect and verify position of all sea cocks and shut off valves.

GALLEY:

- Empty, clean and freshen refrigerator.
- Remove all dry food from storage.

REFERENCE MATERIAL

The following table contains a list of reference materials provided by Ranger Tugs that are contained under separate manuals.

EQUIPMENT	ORIGINAL MANUFACTURER
Engine	Yanmar 3YM-30HP
Stove, butane	Kenyon
Thrusters	Side Power # SM30S21
Search Light	Jabsco
Water Pump	Johnson Pump 2.9GPM
Heater	Heater Craft
Refrigerator	Nova Kool 1.3 Cu In.
Compass	Ritchie
Galley Faucet	ITC
Sea Strainer	Sea Dog
Battery Charger	Charles UL 20 amp
Steering System	Ultraflex

CONTACTS

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