

MASON 44 OWNER'S MANUAL

CONTENTS

- 1. FRESH WATER SYSTEM
 - 1.1 WATER USE
 - 1.2 WATER TANK FILLING
 - 1.3 HOT WATER HEATER

- 2. STEERING SYSTEM
 - 2.1 MAINTENANCE AND INSPECTION
 - 2.2 USE OF THE EMERGENCY TILLER

- 3. SPARS AND STANDING RIGGING
 - 3.1 GENERAL DESCRIPTION
 - 3.2 BASIC SPAR TUNING - GENERAL
 - 3.3 DOCK SIDE TUNING
 - 3.4 TUNING WHILE SAILING
 - 3.5 STANDING RIG MAINTENANCE

- 4. ENGINE - GENERAL DESCRIPTION
 - 4.1 STARTING PROCEDURES
 - 4.2 FUEL SUPPLY AND RETURN SYSTEM
 - 4.3 ENGINE COOLING AND EXHAUST SYSTEM

- 5. POWER TRANSMISSION
 - 5.1 PROPELLER SHAFT
 - 5.2 PROPELLER
 - 5.3 SHAFT ALIGNMENT
 - 5.4 STUFFING BOX
 - 5.5 TRANSMISSION
 - 5.6 CUTLASS BEARING

- 6. TOILET SYSTEM
 - 6.1 MARINE HEAD ANTI-SIPHON VALVE

- 7. BILGE PUMPS

- 8. SHOWER SUMP SYSTEM

- 9. DRAINS AND THRU HULLS

- 10. BATTERY
 - 10.1 BATTERY MAINTENANCE

CONTENTS (Continued)

- 11. STOVE AND PROPANE SYSTEM
- 12. HULL AND DECK
- 13. ZINC AND GROUND SYSTEM
 - 13.1 DESCRIPTION
 - 13.2 ELECTROLYSIS
 - 13.3 PREVENTION
- 14. RUDDER
 - 14.1 CUTLASS BEARING REPLACEMENT
- 15. ELECTRIC SYSTEM AND PANEL

1. FRESH WATER SYSTEM

The MASON 44 is fitted with five stainless steel fresh water tanks totaling approximately 205 gallons. All tanks are routed to a single selection manifold and water can be drawn from any one of the tanks based on selection of valves at the manifold. Water can be drawn with the pressure pump or manually.

The pressure pump used is a Par model #36,800-1000, and the head compartment and galley have manual pumps should the pressure system fail.

1.1 WATER USE

It is recommended that water be drawn from one tank at a time. When all tanks are full, the uppers should be used first, then the lowers. If all tanks are turned on, then the first tank to empty will allow air to get into the system. Also, by drawing from one tank at a time, the water consumption can be carefully monitored.

1.2 WATER TANK FILLING

Vents are provided for water tanks on the sides of the cabin trunk and release air which is displaced by the water. When tanks are full, water will spout from these vents. Prior to any voyage, each water tank should be individually checked by removing the sounding rod and reading the level. Sometimes tanks can burp and air-lock giving the filler the impression they are full.

When the boat is brand new, water may carry a metallic taste and must be flushed thoroughly. Clorox bleach can be put into each tank (approx. 1 cup per tank) and be allowed to stand for a day. Water can then be pumped out with the pressure pump into the galley sink. With a little use, the foul taste will disappear. Inspection plates are provided on each water tank for cleaning.

It is recommended that petroleum jelly be used on the fill caps on deck to insure a water tight seal and to allow easy removal for filling.

During filling, some pounding may be heard as water tanks expand with the weight of the water. This is perfectly normal. If the water pump fails during use, it may be noted that, as a temporary repair, parts can be "cannibalized" off of the bilge pump or sump pump. Motors, belts, diaphragms, and valves are all interchangeable.

If, when all faucets are closed, the pressure pump runs intermittently, a leaky pipe junction on the pressure side of the pump is indicated. Piping should be checked and hose clamps tightened. Also, check under sinks and faucets for leaks.

1.3 HOT WATER HEATER

The MASON 44 is fitted with a dual-source hot water heater. Water is heated by means of both electricity and engine cooling water. The water heater used is a Seaward EMH 11.

It should be noted that the water heater must be full of water and purged of air prior to turning on the electric heating element. This can be accomplished by turning on the pressure pump and running the hot water allowing all air to purge from unit. If the heating element is turned on and the heater is empty, the element will be ruined.

It should also be noted that the engine, while idling, may not generate enough heat to warm the water in the water heater to the appropriate temperature. Increasing RPM with the engine under load will increase heat output.

VALVES

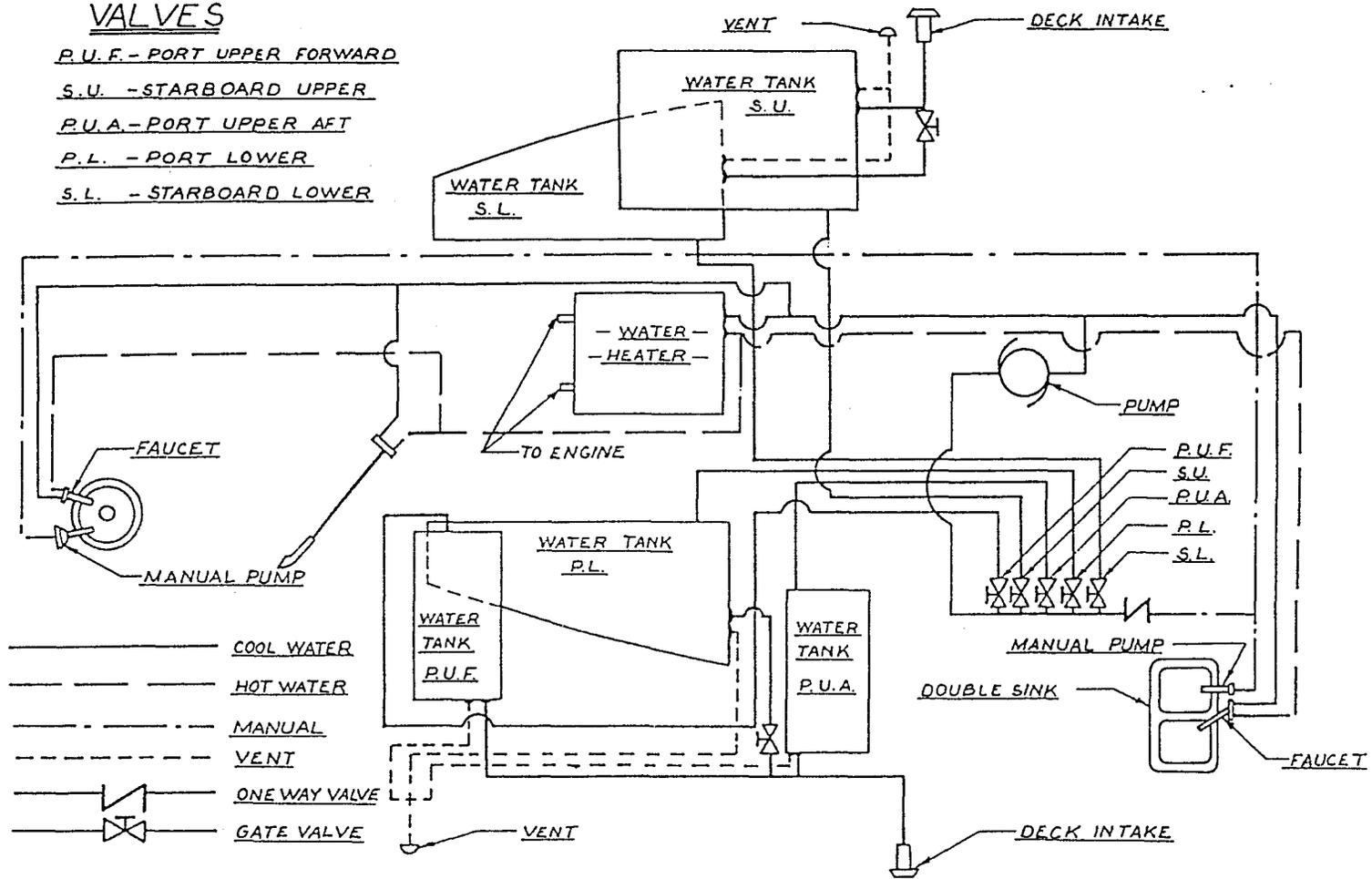
P.U.F. - PORT UPPER FORWARD

S.U. - STARBOARD UPPER

P.U.A. - PORT UPPER AFT

P.L. - PORT LOWER

S.L. - STARBOARD LOWER



— FRESH WATER SYSTEM —



2. STEERING SYSTEM

MASON 44s are fitted with a stainless steel steering pedestal. Steering is accomplished with a gear sprocket on the wheel shaft and a chain which is spliced into stainless steel cable and run over a series of sheaves (pullies) and attached to a large strong steering quadrant.

2.1 MAINTENANCE AND INSPECTION

The entire steering system must be carefully maintained and inspected regularly. The system is very simple and adjustment can easily be made for cable tension and sheave alignment.

All sheaves should be greased with marine grease and the cables should have sufficient tension to give firm steering response. Excessive tension is not necessary-- just enough to accomplish a good feel and eliminate any possibility of the cable derailing from the sheave. The sheaves must be checked for proper alignment also to prevent excessive wear and possibly derailing. If excessive wear is noticed on cables or sheaves, it should be brought to the dealer's attention immediately.

It is important that the steering system be understood and serviced to prevent possible steering problems which, in certain circumstances, could endanger the yacht.

2.2 USE OF THE EMERGENCY TILLER

If a failure of the steering system is experienced, the MASON 44 is engineered and fitted with an excellent emergency tiller. The tiller is stowed within the hanging locker forward on the starboard side.

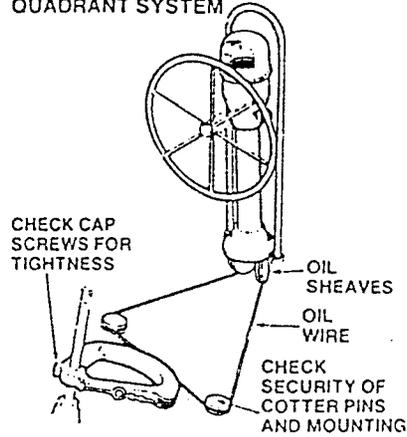
To use this tiller, the stainless steel plate aft of the pedestal should be removed exposing the top of the rudder shaft. The shaft is machined to accommodate the socket at the base of the tiller shaft. The tiller slips over the rudder shaft head and the tiller shaft rests in the "V" shaped cutout on the centerline at the aft end of the cockpit. The tiller rides up over the pedestal.

It should be noted that if the cables do derail or break, they could foul the quadrant making tiller steering difficult or impossible. It is recommended that a small cable cutter be carried aboard allowing the owner to cut away a tangled cable quickly and regain steering control.

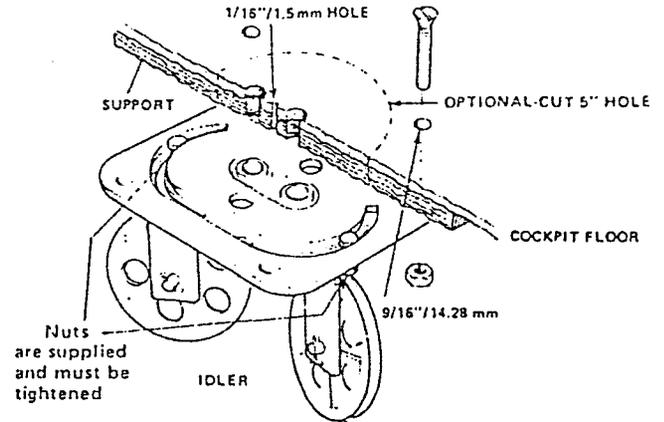
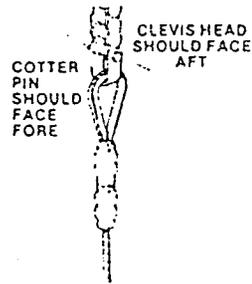
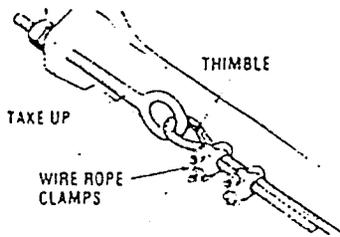
It should also be noted that loss of steering is very rare and with proper inspections and maintenance, is almost unheard of.

— STEERING SYSTEM —

QUADRANT SYSTEM



PLACE TWO NUTS AND TIGHTEN TOGETHER



3. SPARS AND STANDING RIGGING

3.1 GENERAL

The MASON 44 is fitted with the finest spars and standing rigging available. Masts and booms are of extruded aluminum and painted with Impron linear polyurethane paint. This finish is extremely durable and should give years of protection to the spar.

All standing rigging is U.S. manufactured 1 X 19 stainless steel wire, and all swaging of marine eyes and turnbuckles is done on a large rotary swaging machine to aircraft standards. All turnbuckles are of U. S. manufacture. Large safety factors are used in determining the spar section and standing rigging dimensions. The entire rig of the MASON 44 is extremely stout and should hold up in even the most extreme conditions.

3.2 BASIC SPAR TUNING - GENERAL

In order to insure the spar is properly supported, the standing rigging must be carefully tensioned. If the rigging is not tuned, the spar not only will be put under severe stress, but the boat will not steer and handle as designed.

Tuning is really very simple. Racing sailors can go to great extents to fine tune the rig to achieve the exact sailing characteristics wanted, but the cruising man need not be concerned with this. All that is necessary is that the spar be evenly supported and raked as per the designer's specifications.

3.3 DOCK SIDE TUNING

All standing rigging for the MASON 44 is pre-cut to exacting specifications allowing tuning within the perimeters of fore and aft trim. The following tuning procedures are recommended on the MASON 44 during commissioning:

- A. All shrouds and stays attached and pinned but not tightened.
- B. Moderately tighten upper shrouds taking up evenly on both screws (port and starboard).

- C. Hang a heavy object (tool box, water bucket, etc.) from the main halyard and hoist so that the weight is at boom gooseneck height. Adjust the headstay and backstay so that the weight hangs approximately 10" to 12" aft of the gooseneck. (Measure from the trailing edge of the spar to the center line of the halyard). Move the spar aft by loosening the headstay and taking up on the backstay. Moderately tighten the headstay and backstay after achieving this proper rake.
- D. Moderately tighten the fore and aft lowers evenly. Sight up the spar and note that if one lower shroud is too tight or unevenly tensioned, the spar will be out of column. Insure that this does not happen.
- E. Moderately tighten the intermediates evenly. Sight up spar and follow procedures described in 3.3. D.
- F. Moderately tighten the forestay.
- G. Tension should be highest on the headstay and backstay, uppers, intermediates, and the lowers.

After this preliminary dockside tuning, the mast wedges should be put into place and all cotter pins put into the turnbuckles to prevent them from loosening and then the turnbuckles taped.

3.4 TUNING WHILE SAILING

This is the second phase of rig tuning and should be done after the boat has been sailed hard a few times. During these first few sails, the rigging naturally stretches slightly.

Select a good sailing day with winds of approximately 10-15 knots and bring the boat close hauled on a starboard tack. Sight up the sail track of the spar and if the top of the spar seems to sag off the leeward, the boat should be luffed up and the intermediate and upper should be tightened. If a sag is noted at the point of the lower shroud attachment, tension should be added at that point. If a bow is noted to weather at the lower spreaders, then the lowers should be loosened. Note that it is desirable to have slightly more tension on the forward lowers than the aft to encourage a slight bow aft.

This same procedure should be followed on the opposite tack. The goal is to maintain a straight column while sighting up the spar during sailing conditions. As previously mentioned, a slight bow aft (mast head aft mid-section of spar forward) is desirable.

If, during sailing weather, a helm is noticed, presuming that sails are properly trimmed, by moving the spar forward at the mast head, this weather helm can be relieved. The same applies to leeward helm. This can be minimized by moving the top of the spar aft. It should be noted that at 10" to 12" of rake at the gooseneck, the boat should have a balanced helm. (Slight weather helm is desirable).

3.5 STANDING RIG MAINTENANCE

The stainless steel standing rigging requires no real maintenance but should be cleaned and inspected regularly. It is recommended that the spar and standing rigging be washed with soap and water twice a year. During these washings, the marine eyes, tangs, and other spar fittings should be inspected for cracks or any evidence of unusual wear or fatigue. While aloft, cleaning and inspecting lubrication of masthead blocks and sheaves should be done.

The benefits of this maintenance, aside from catching a troubled fitting before breakage occurs, is that sails will stay much cleaner. It's amazing how filthy the spar and rigging gets after six months.

4. ENGINE - GENERAL DESCRIPTION

MASON 44s are fitted with a Yanmar 4JH-TE-55 HP diesel engine. For general maintenance, refer to the engine manual which is included within this manual.

Every yacht design calls for a unique engine installation due to varying hull shapes and machinery accommodations.

Described with this MASON 44 manual are features unique to the MASON 44 which are not fully covered within the Yanmar engine manual.

4.1 ENGINE

Starting Procedures

Always check oil level prior to starting engine. If engine is started for even a matter of seconds without oil pressure, serious damage can result. Checking engine oil is also a preventative measure against running an engine with water in the crank case (which is covered within this section).

Insure that raw water intake is open and filter is clear of debris.

Fuel valves are on (one tank only covered within this section).

Emergency shut-off switch "on".

"Engine Master" switch at main panel "on". Turn key to start, cranking engine for no more than 10 seconds. If engine fails to start, follow procedures set forth within this section.

After engine starts, check oil pressure and allow engine to warm to operating temperature.

Should engine fail to start during first 10 seconds of cranking, stop and open pet cock on water lift muffler allowing exhaust cooling water to drain into bilge.

Failure to follow this exact procedure will cause engine damage due to water intrusion. (See section on exhaust system for details).

During engine fuel bleeding or any cranking, follow procedure above.

Should any water be noted in engine oil, your MASON dealer should be contacted immediately. Do not start engine as serious damage could result. Water is recognizable as a white froth on oil dip stick.

To stop engine, simply push the red "Stop" button. This button activates a solenoid which cuts the fuel supply to the engine, causing it to stop. Should this fail to stop the engine, it can be manually stopped by operating the pull rod by hand. This pull rod is located on top of the engine aft and is attached to the cylindrical solenoid. The front of the solenoid where the pull rod is attached is covered by a rubber accordian-type boot. Simply grab the pull rod and push it aft towards the cylindrical solenoid which will stop the engine. When engine stops, turn key to "Off".

If engine fails to start or runs sluggishly, check to make sure the stop solenoid is returned to the run position.

It is advisable to turn off the raw water intake when the engine is to shut down for a long period of time.

After engine starting, check to see that cooling water is being expelled from the rear exhaust. If no water is being expelled, this indicates that raw cooling water is not being pumped through the cooling system.

- Check to see that raw water intake is open.
- Check to see raw water filter is open and clear of debris.

See Section 4.3 for more details on engine cooling.

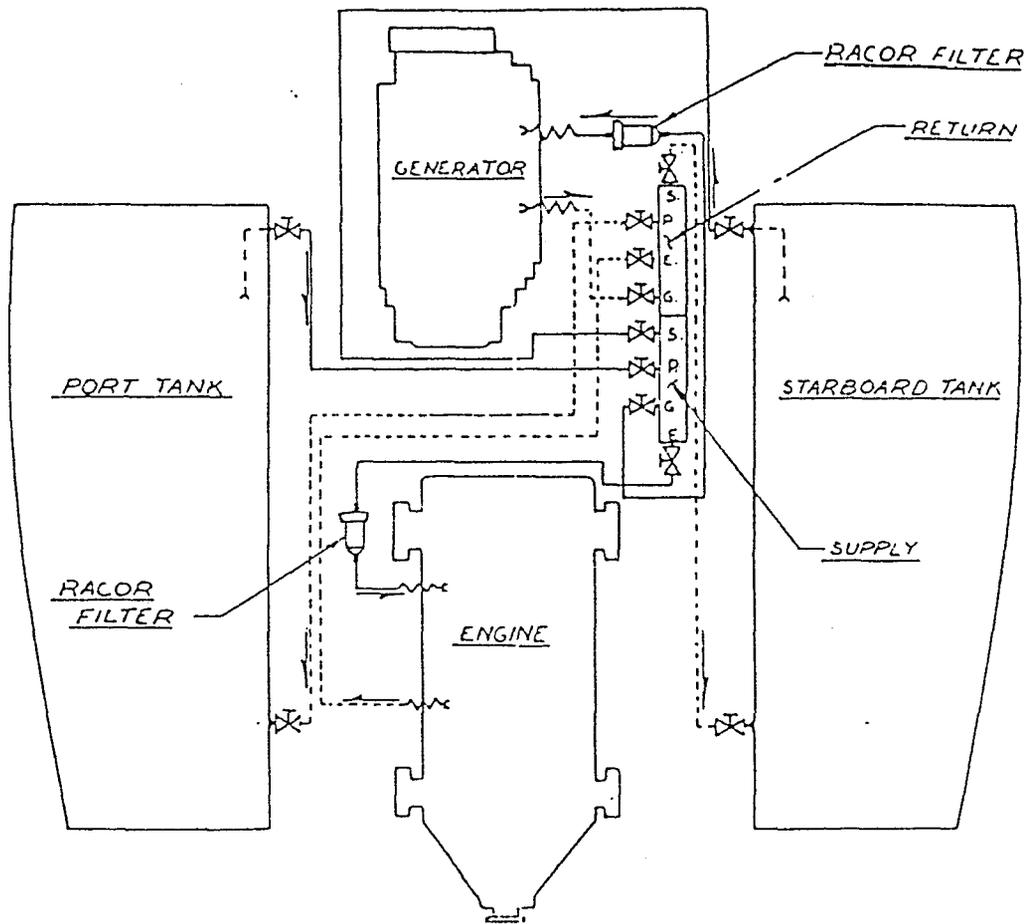
4.2 FUEL SUPPLY AND RETURN

All MASON 44s are fitted with two black iron fuel tanks. These tanks total approximately 168 gallons and are undercoated and painted to prevent rust.

Each tank can be sounded with a dip stick which is provided at the forward inboard corner of each tank. Sounding rods are not marked and must be wiped dry to get an accurate reading.

Inspection plates are provided should cleaning become necessary.

FUEL SYSTEM



While drawing fuel for engine or generator running, it is recommended that fuel be drawn from one tank at a time. If both fuel valves are open, the fuel from the high side during sailing conditions can drain to the low sided tank. This can cause the lower tank to over fill and purge fuel out of the vent onto the deck. Also, it is possible for the engine to suck air should the upper tank empty. Always draw and return fuel to one tank only. Log the time run on one tank and run an equal length of time on the other.

* It is recommended that the fuel tanks be periodically checked for water by inserting a small hose to the lowest point through the dip stick hole. The water will always settle to the lowest point and can easily be sucked out with a general purpose pump. These tanks should be checked every six months.

4.3 ENGINE COOLING AND EXHAUST SYSTEM

The Yanmar 4JH-TE-55 HP engine installed in the MASON 44 is fresh water cooled. The fresh water which circulates around the engine is cooled by raw water which is pumped through a heat exchanger and, in turn, cools the exhaust line and is expelled through the transom of the boat. The exhaust system consists of a water lift system where water and exhaust is mixed.

This type of system is very widely used and is totally approved by the engine manufacturer. There are certain precautions which must be taken and are noted within this section.

Raw water is drawn through the raw water strainer by the raw water pump and forced through the heat exchanger. After passing through the heat exchanger, the cooling water runs over a vented loop (siphon break) which is located under the bridge deck. The water then is routed back to the engine and is injected into the exhaust elbow. This raw water cools exhaust gas and allows it to be run through the steam hose to the waterlift muffler where the gas is further cooled and silenced. The exhaust pressure then forces the cooled gas and water up and out of the boat.

If siphon break is tampered with or clogged, raw water can enter the engine through a siphon action due to the fact that the engine is below the waterline.

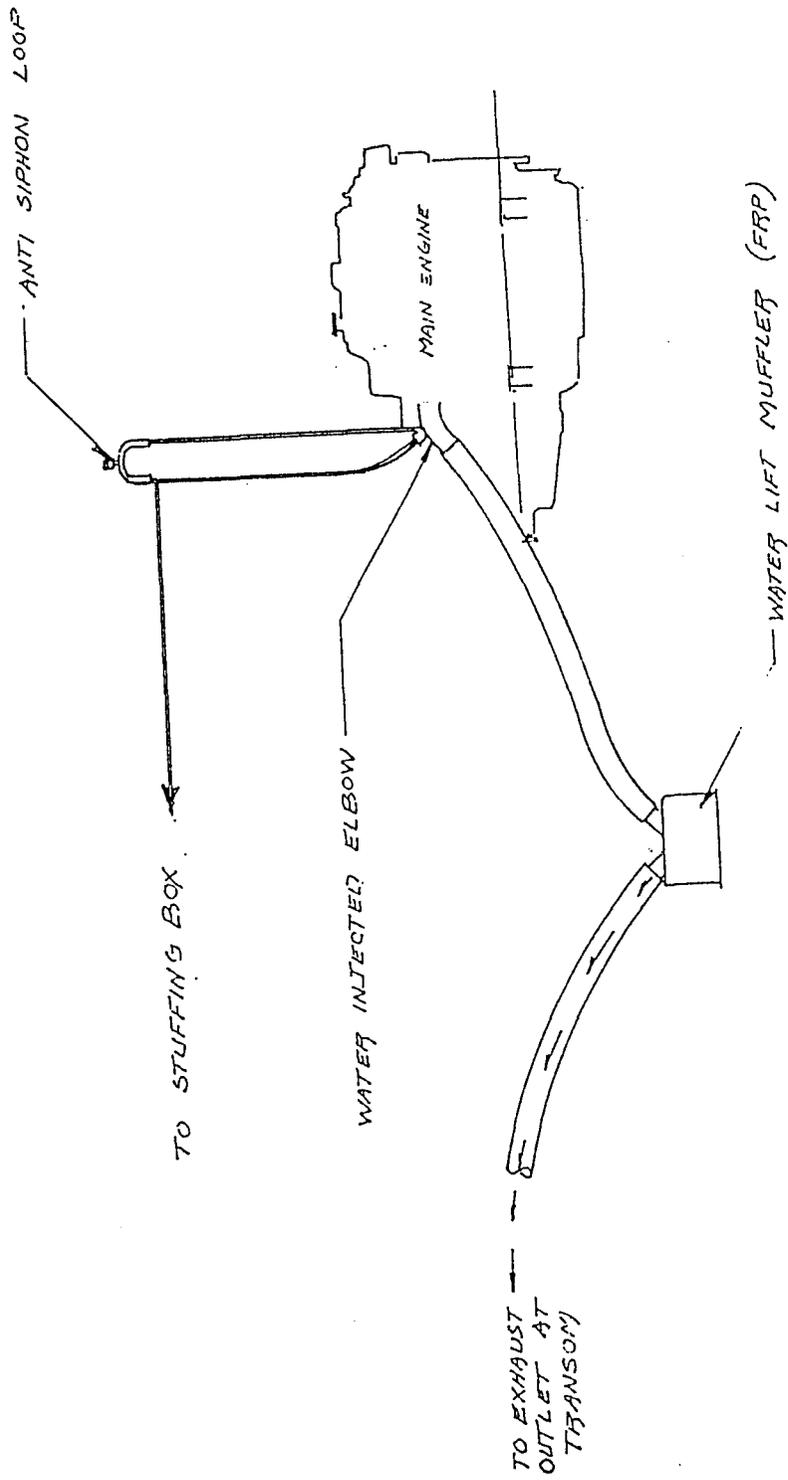
During cranking, the raw water is pumped into the waterlift muffler through the injected elbow and without the expanding exhaust gas of the running engine, the water will build up in the muffler and exhaust lines and could potentially damage the engine. During cranking for over 10 seconds, the drain valve should be opened at the bottom of the waterlift muffler.

It is considered owner maintenance to inspect and insure that the siphon system is clear and operating properly. If an owner is unable to perform this maintenance, it should be done by a mechanic using this manual as a guide. This inspection should be performed twice annually.

Remove the hose clamps at the siphon break elbow and remove both hoses. Cover one side of the elbow with a finger and blow through the open end.

If any resistance is noted, the components should be removed and thoroughly cleaned of salt residue and debris. If this vented loop clogs with salt, the engine will flood, and damage will result which will not be covered under the engine or manufacturer's warranty.

— MAIN ENGINE EXHAUST SYSTEM —



5. POWER TRANSMISSION

- 5.1 PROPELLER SHAFT - The MASON 44 is fitted with a 1-1/4" stainless steel propeller shaft.
- 5.2 PROPELLER - A three-bladed 18" X 10" bronze propeller is standard. The propeller is tapered and keyed to fit over the shaft. The propeller is held into position by two nuts and a cotter pit. To remove the propeller, a prop puller is necessary.
- 5.3 SHAFT ALIGNMENT - The propeller shaft and engine should be carefully aligned prior to the delivery of the new yacht. Each time the boat is hauled and launched, the alignment should be checked. If vibration is excessive or a loss of engine speed is evident, alignment should also be checked.
- a. Remove all bolts from the propeller shaft flange and support shaft as it will drop down slightly.
 - b. Insert a feeler gauge between the couplings to check that the feeler gauge at .003" is gripped firmly completely around the circumference of the coupling.

If the feeler gauge does not pull evenly around the entire coupling, mis-alignment is indicated. This is corrected by adjusting the engine mounts to match the flanges up.

If, after adjustment, the engine alignment of the flange cannot be accomplished, the propeller shaft is bent. The shaft must be removed and straightened or replaced.

5.4 STUFFING BOX

Particular care must be taken to insure the stuffing box is properly adjusted to minimize leaking around the propeller shaft.

If it is noted that the shaft log is leaking excessively, it can be tightened with the two long bolts and hub. Care must be taken not to over-tighten the stuffing box as heating and potential seizing may occur. If slight dripping during and after running is noted, no adjustment is necessary. Slight leakage is needed for lubrication and cooling. If after adjustment, excessive leaking is still a problem, new packing may be needed. To replace packing, remove nuts and separate stuffing box body. With a screwdriver or sharp tool, pull the old packing and replace with new. The new packing is available at any marine dealer. New packing should be wound around shaft two or three times and cut. The stuffing box body should be reassembled and the nuts tightened down until the leaking stops. Be sure to tighten lock nuts.

After adjusting the stuffing box or replacing packing, the unit must be carefully monitored for the first half hour of hard running. Watch for heat!! A hand should detect very little warmth. If the stuffing box heats up, it must be loosened immediately.

5.5 TRANSMISSION

The Yanmar 4JH-TE-55 marine diesel is fitted with a mechanical transmission. Maintenance and care is spelled out in the engine owner's manual.

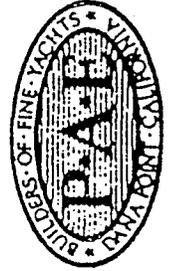
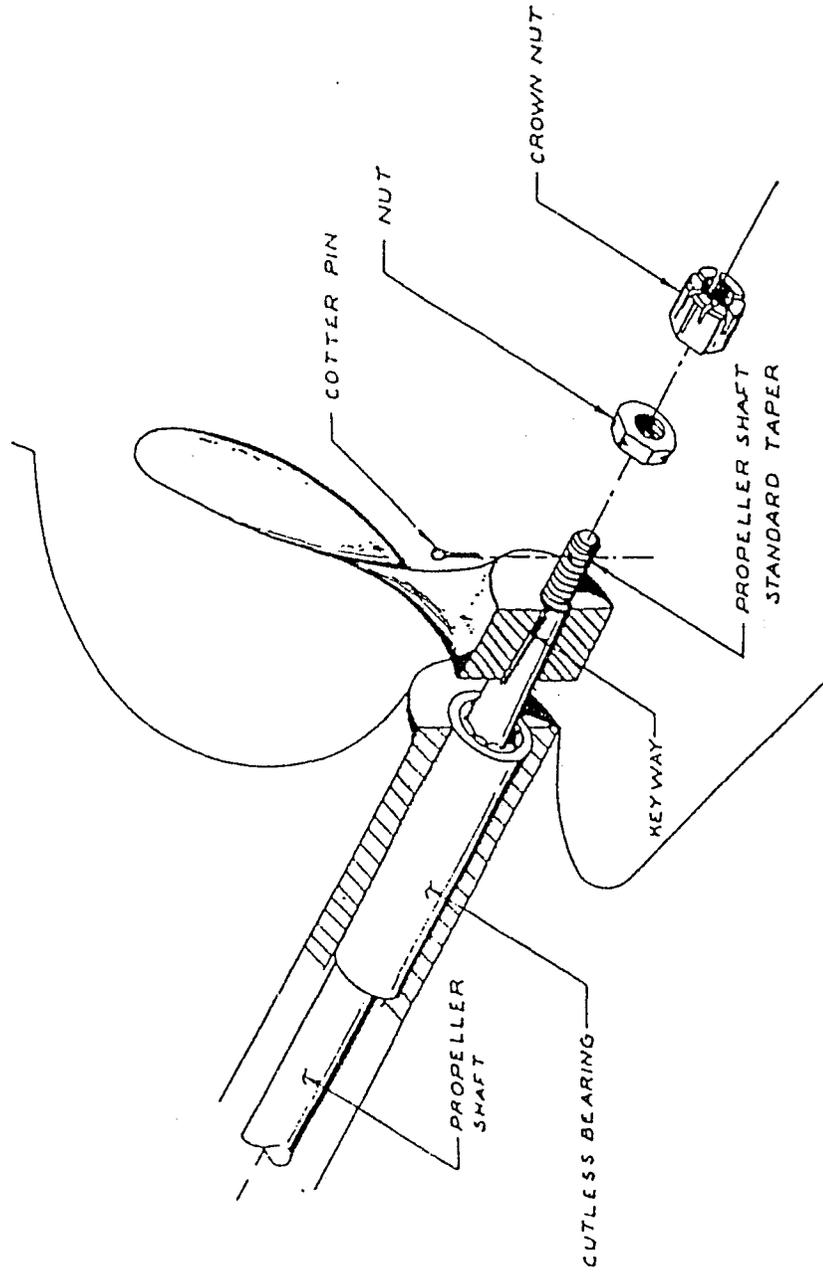
- a. Oil level should be checked regularly.
- b. The engine should always be running at idle speed while shifting.
- c. Freewheeling of the propeller while sailing will not harm the transmission; however, it is recommended that for long offshore passages, a propeller shaft lock be used.

5.6 CUTLASS BEARING

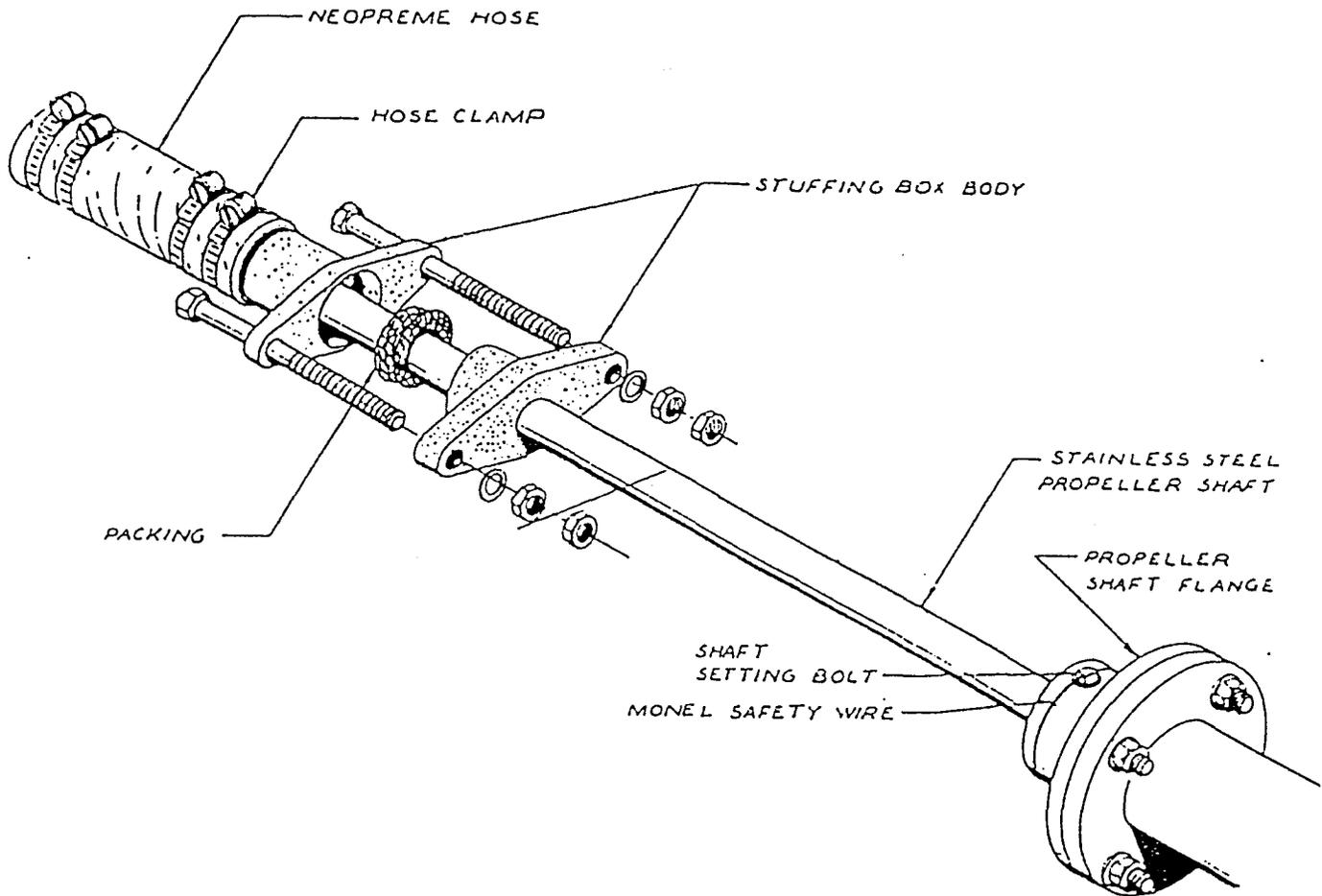
A rubber cutlass bearing is pressed into the stern tube just forward of the propeller. This cutlass bearing may need replacement after a couple of seasons' use and requires a haul-out to accomplish. It should be noted that with proper engine alignment, the cutlass bearing could last much longer; however, removal should be done as follows:

- a. Remove propeller.
- b. Remove shaft from coupling releasing the shaft setting bolts and safety wire.
- c. Turn rudder hard over and set brake.
- d. Slide shaft from boat.
- e. Remove bearing with claw and slide hammer.
- f. Replace bearing with new by pressing into position.

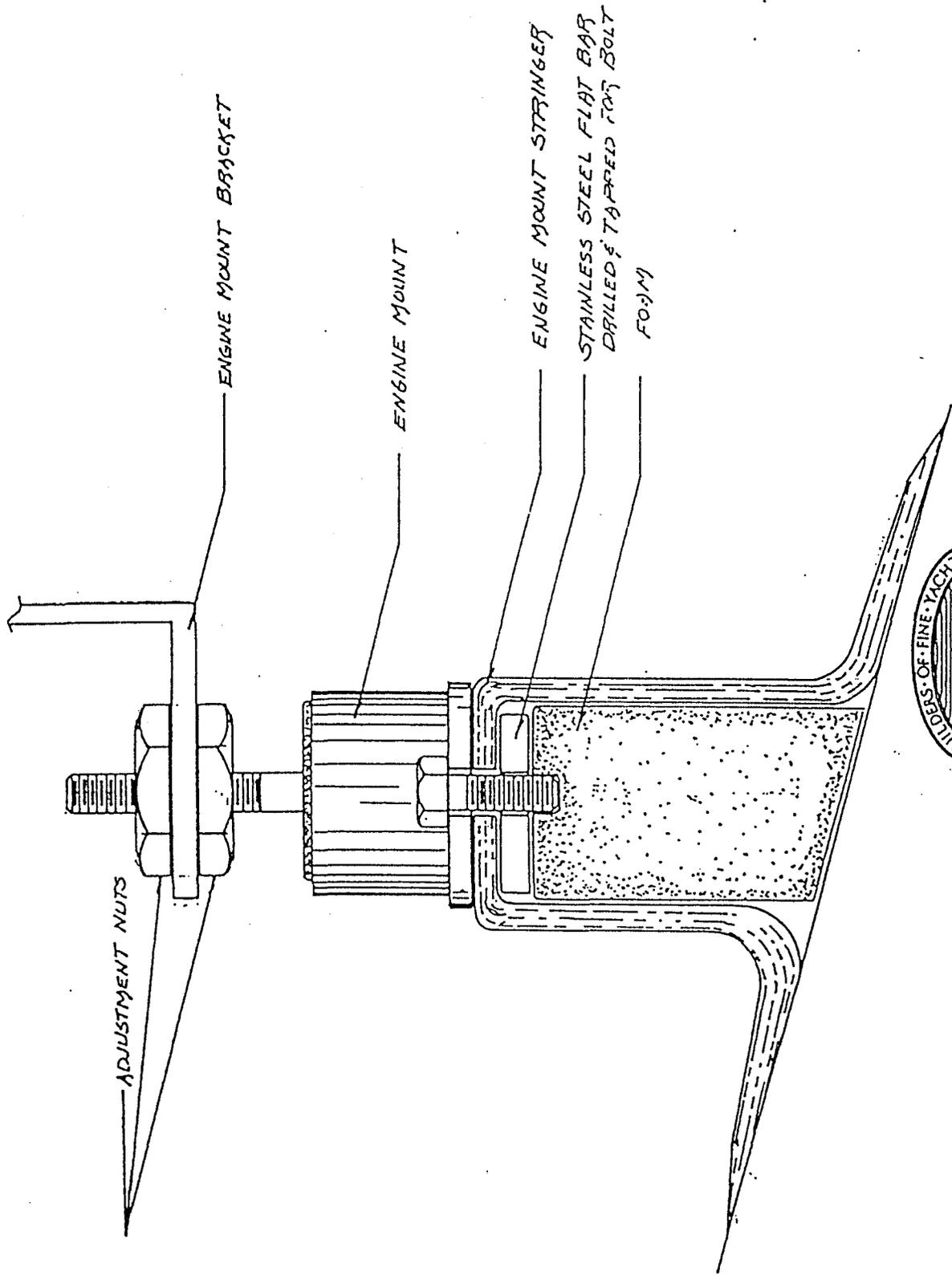
— PROPELLER INSTALLATION —



STUFFING BOX ASSEMBLY



ENGINE MOUNTS & STRINGER



6. TOILET SYSTEM

MASON 44s are fitted with a 20 gallon fiberglass holding tank. This standard head is a Par #59182 head. A nice feature of this W. C. is that in lieu of rebuilding, the pump mechanism can simply be replaced as needed.

The marine head is provided with a "Y" valve which allows the operator to divert waste into the holding tank or directly overboard.

To empty holding tank, a Henderson diaphragm pump is used which is located below the head sink and counter-top. The pump should be pumped until liquid is totally removed and air is felt and heard flowing through the head and into the holding tank along with sufficient raw water to flush the holding tank. After pumping chemical and water into the tank, re-empty it as described.

Follow all instructions for the use as per the head operator's manual (enclosed) but if, despite caution, the lines become clogged, it is advisable to check the following areas in the order listed.

- a. Siphon break - check for clog by loosening hose clamps and removing hose. Check head side of siphon break.
- b. Check inlet of "Y" valve by removing hose.
- c. Check inlet of manifold where head and holding tank outlets merge by removing hose.
- d. Check one-way valve near outlet thru-hull by removing hose.

Never try to force a coat hanger into the toilet bowl as done in a household unit. This will damage the marine toilet.

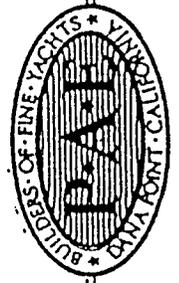
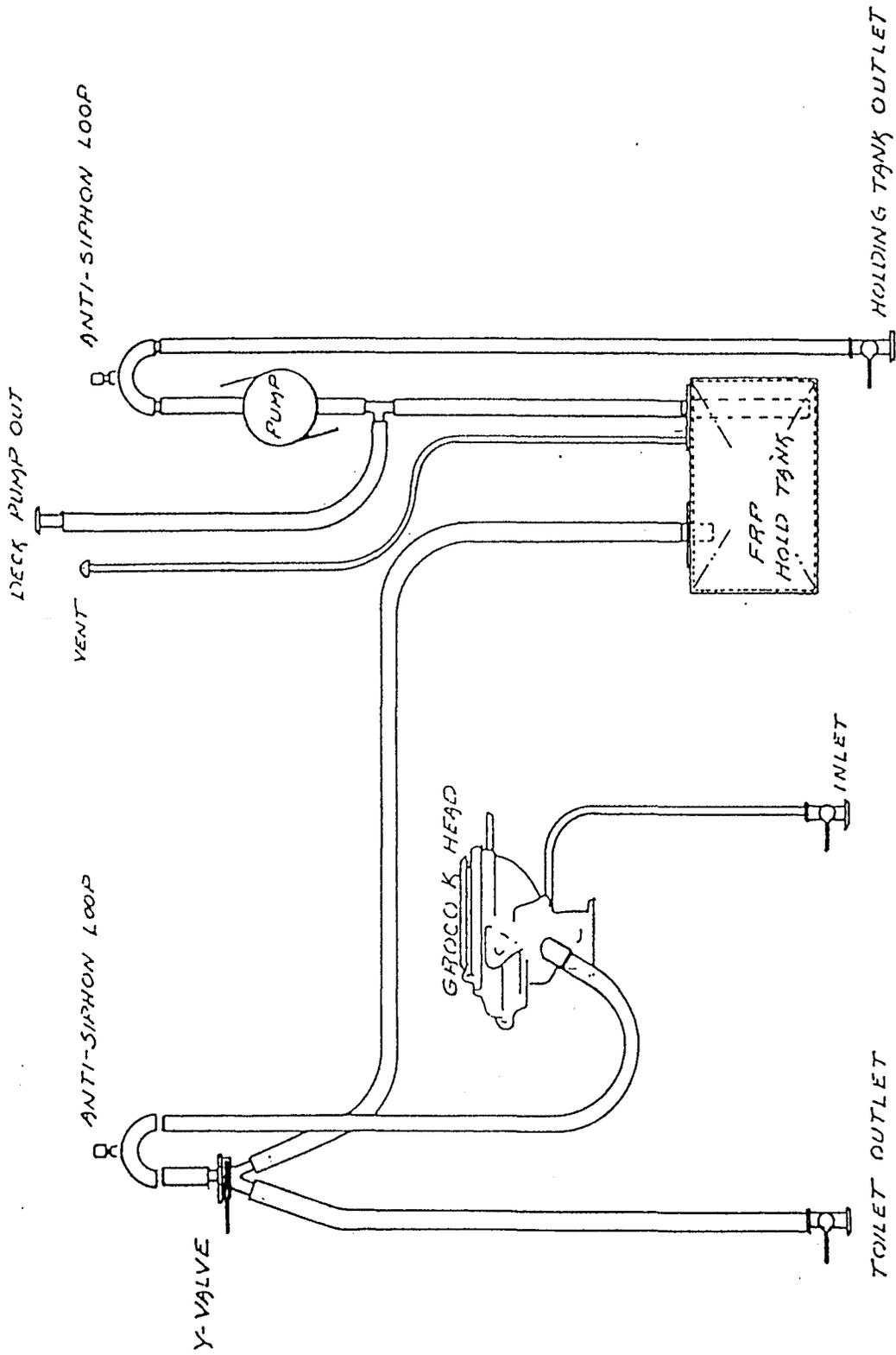
The holding tank can also be emptied through a deck fitting if access to a dock side pumping unit is available. To remove sewage using deck fitting, insert the suction hose and draw waste from tank until air is heard and felt in the hose. It is also recommended that the holding tank be flushed, as described earlier in this section, after emptying.

As a safeguard against a spoiled vacation, it is mandatory for every yachtsman to understand his marine toilet system, carry spare parts (see Head Manual) and thoroughly brief his guests of the unit's proper use.

6.1 MARINE HEAD ANTI-SIPHON VALVE

The marine head is fitted with an anti-siphon valve which must be periodically checked to insure that there are no clogs in the venting action which could cause holding and possible yacht flooding. Disassembly, inspection and cleaning every six months is necessary.

TOILET SYSTEM



BILGE PUMPS, SUMP SYSTEMS, DRAINS, AND THRU-HULL FITTINGS

7. BILGE PUMPS

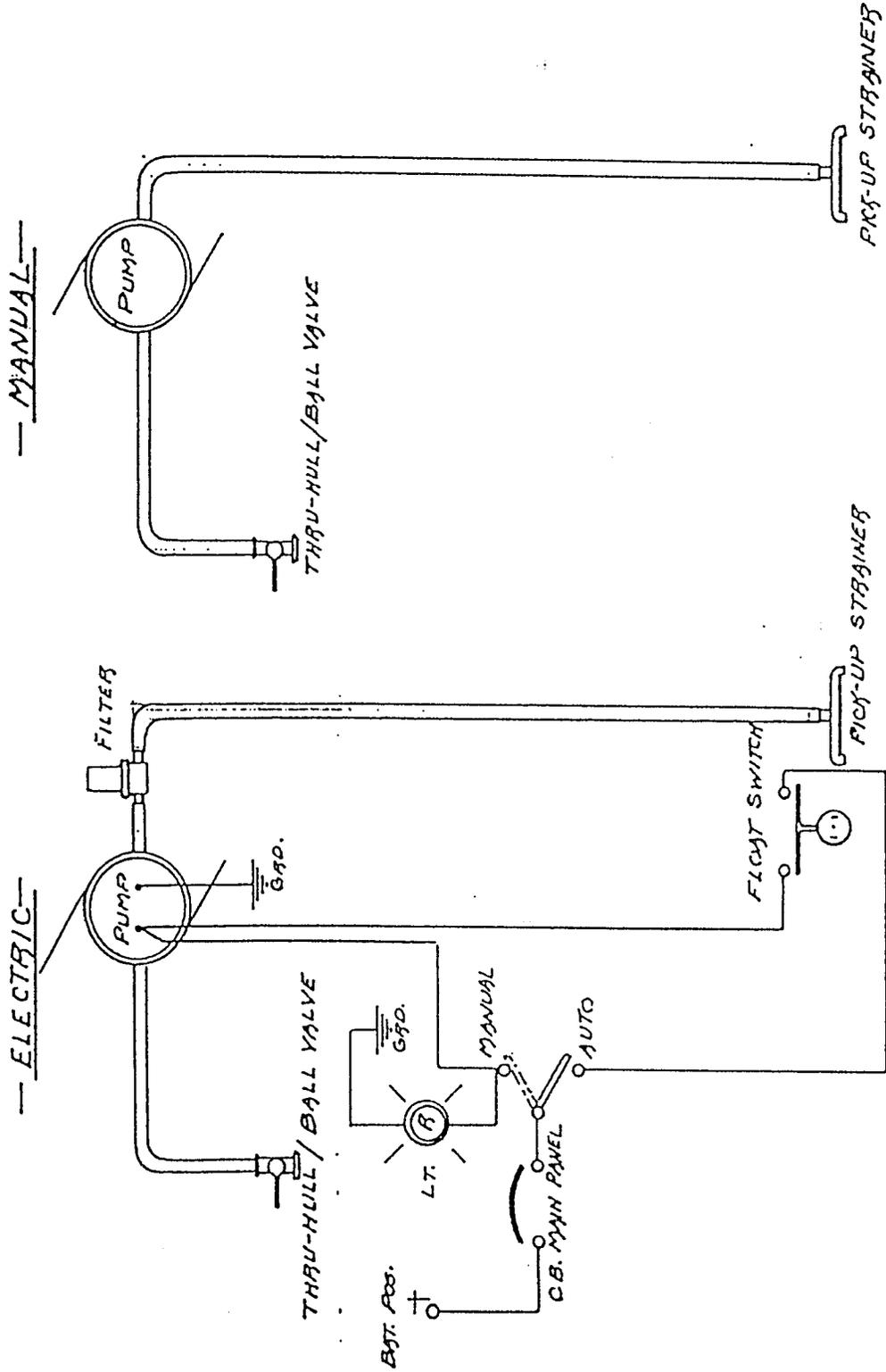
MASON 44s are provided with both a manual bilge pump (Kempax 50005) which is mounted on deck and a Par electric Model No. 36600-0000.

Both pumps are provided with a bilge strainer. The manual diaphragm bilge pump exits the starboard side aft above the waterline. While using this pump, be sure that the thru-hull fitting is open.

The electric bilge pump is routed over an anti-siphon valve under the galley sinks and discharges through a thru-hull under the galley sole. Note that the bilge pump and shower sump pump share a common anti-siphon valve and discharge.

IMPORTANT: As with all anti-siphon valves, it should be checked regularly to insure it is working properly. An easy check is simply to turn on the bilge pump with enough bilge water to fill the pump and hoses. After the pump is turned off, a slight intake of air should be heard at the anti-siphon valve which breaks the potential siphon action preventing flooding of the boat. If this intake of air is not noted, the anti-siphon valve is probably clogged with salt, and it should be disassembled and cleaned or replaced.

BILGE PUMP SYSTEM

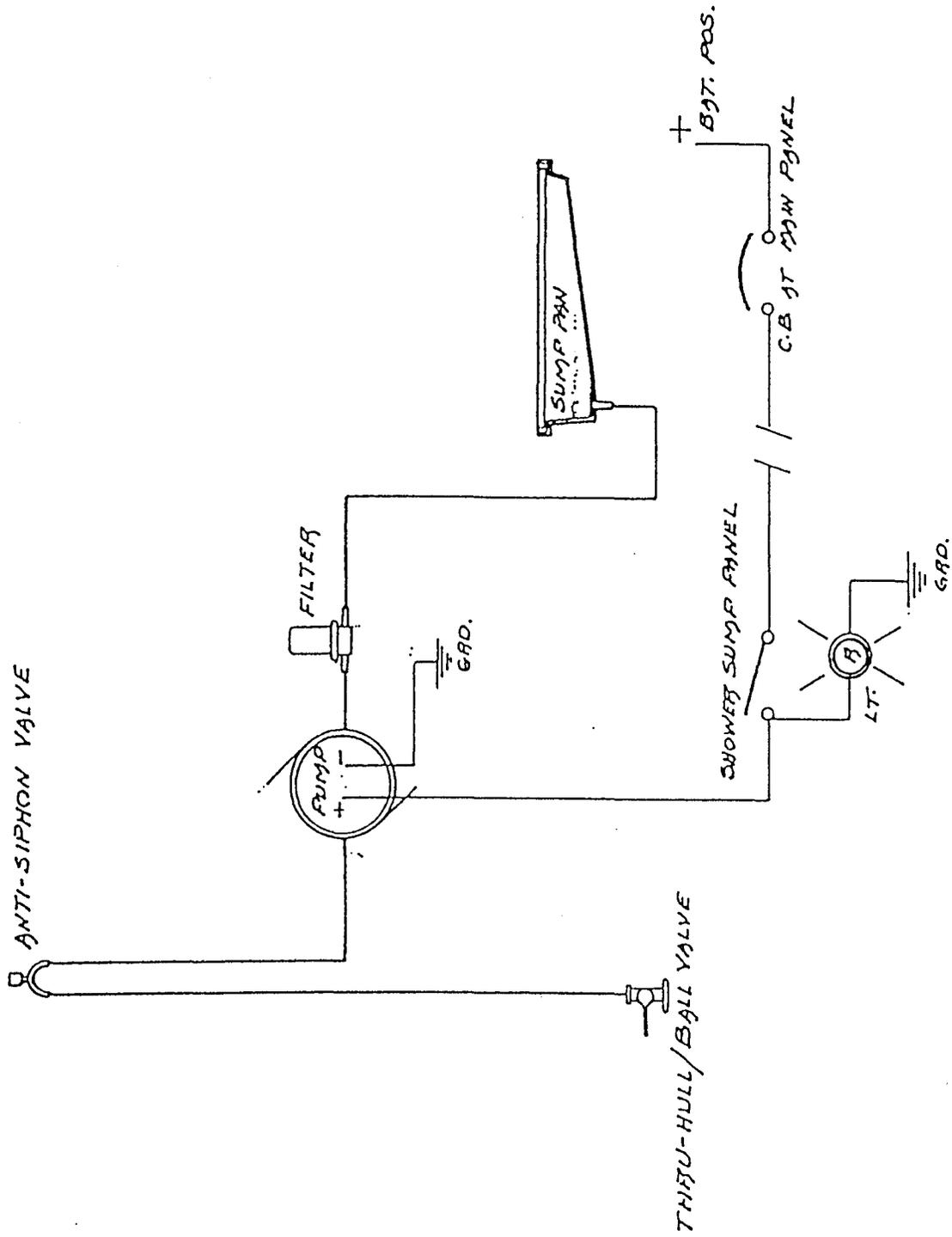


8. SHOWER SUMP SYSTEM

New MASON 44s are fitted with an electric Model No. 36251-0000 sump pump which is directly connected to the shower pan drain pan. To use the system, turn on the shower sump switch at the main electric panel. With this switch, the pump can be activated by turning the switch provided within the shower stall. This pump discharges shower water out of the thru-hull.

If the shower sump pump should fail, the hose at the base of the shower pan can be removed allowing the shower water to drain into the bilge. While this is not desirable for the long term, it should not present a problem as a makeshift short term remedy.

— SHOWER SUMP PUMP SYSTEM —



9. DRAINS AND THRU-HULLS

All sink and deck drains are led to thru-hull fittings and drain overboard. Bronze seacocks are provided exclusively for all raw water intakes and discharges.

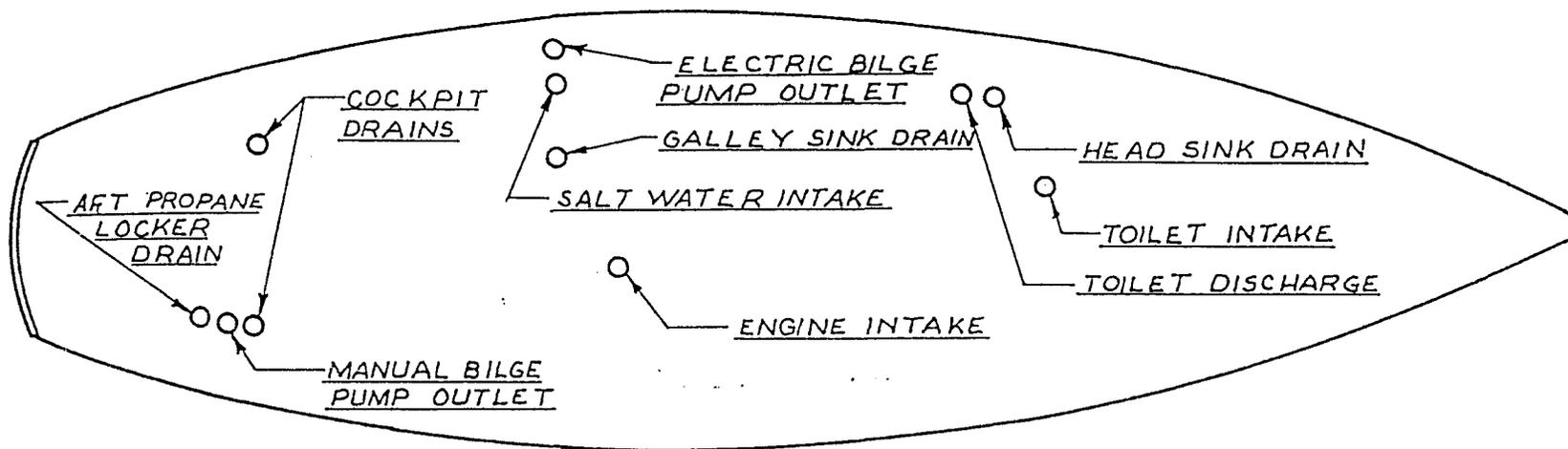
Every thru-hull valve should be opened and closed regularly to prevent seizing and to insure a visual inspection is made. The thru-hull should be sprayed with lubricant to prevent oxidation and be kept clean. Every thru-hull is bonded into the negative ground system and should be protected from electric action by the zinc system (see Section 13). However, if any heavy corrosion or frothing white foam is noticed, this may be a sign of electrolysis, and your dealer should be notified immediately. Detecting these problems early to prevent damage is why inspections and actuations of the thru-hull valves are frequently necessary.

Note: Sink Drains

To prevent purging of seawater through sink drains in rough weather conditions, sink drains are fitted with one-way valves. These valves can potentially stick due to soap, hair and other debris clogging the drains. Generally, a sharp tap on the one-way valve will free the check valve and remedy the problem. These check valves are located very near the thru-hull fitting within the drain line.

NEVER use any commercial drain cleaner containing acid or caustics as they will damage the rubber hoses used. Should a stubborn clog occur, the thru-hull should be closed and the hoses removed by loosening the hose clamps. A coat hanger can generally be used to clear the debris from the line.

While trouble shooting a clogged line, reductions in the line, fittings such as "tees" or "elbows" are always suspicious areas. Often times, the clog will be at the thru-hull itself where the rubber hose is reduced to the thru-hull fitting.



— TYPICAL THRU-HULL LOCATIONS —



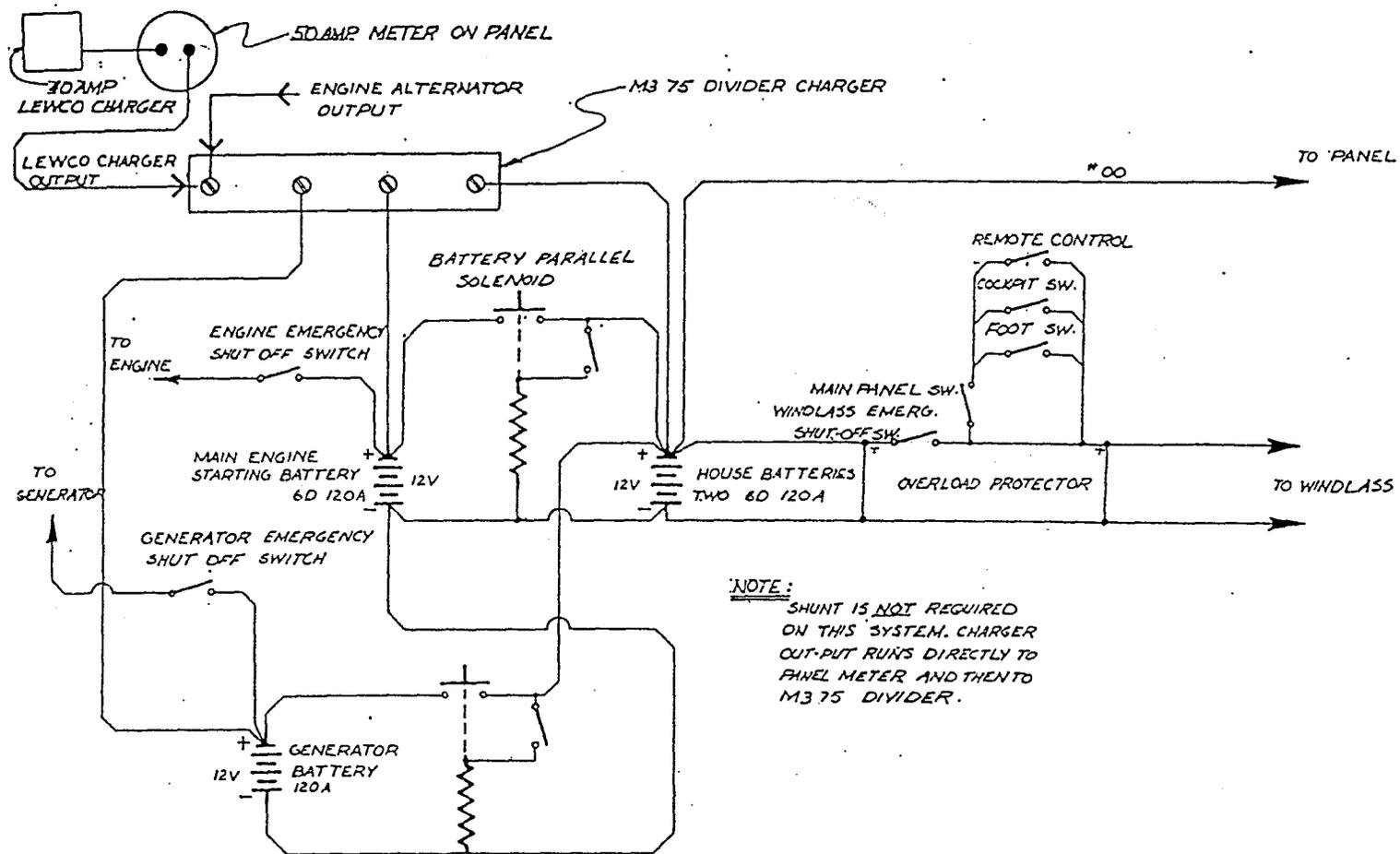
10. BATTERY

10.1 BATTERY MAINTENANCE

All MASON 44s are equipped with three 12 volt 120 amp lead-acid cell batteries. These batteries will last for years if the owner provides proper maintenance and use of the battery.

Battery maintenance becomes pretty much common sense. The following are suggested maintenance procedures:

1. A clean and dry battery top will help prolong the batteries' charge. Water and electrolyte conduct electricity from battery post to post. This will discharge your battery.
2. Cable clamps and binding posts must be clean and free of corrosion. This is accomplished either by wire brushing or simply sanding them with coarse sand paper.
3. Cells must be kept filled to the correct level with clean water. Distilled water is preferred; however, tap water is satisfactory providing the amounts of iron and chlorine are not excessive.
4. Both battery cables (hot and ground) should be inspected and replaced whenever corrosion or fraying is evident. Worn cables will result in excess voltage drop when current is drawn.



NOTE:
 SHUNT IS NOT REQUIRED
 ON THIS SYSTEM. CHARGER
 OUT-PUT RUNS DIRECTLY TO
 PANEL METER AND THEN TO
 M3 75 DIVIDER.

-BATTERY SYSTEM-



11. STOVE AND PROPANE SYSTEM

The standard MASON 44 is designed to accommodate a liquid propane gas stove and oven along with two twenty pound 4.2 gallon propane bottles. A moulded fiberglass propane locker is incorporated into the deck at the forward end of the cockpit. This propane locker is vented to the outside atmosphere and should a leak occur within the locker, it would vent overboard and would not be allowed to enter the interior of the yacht.

A continuous run of Coast Guard approved LPG reinforced rubber hose is provided to carry propane from its locker to the stove alcove. The pressure regulator, gauge, and electric shut-off is recommended and the standard panel is provided with a circuit breaker and wiring is led from the panel to the locker making the installation relatively easy.

The reinforced rubber hose terminates at the stove alcove. "Airquip" type fittings should be used and the condition of the rubber hose should be carefully inspected at regular intervals to insure there is no chafe or deterioration developing.

The user of the stove and oven must use extreme care while operating the system and should be totally aware of the operating procedure. Propane is a gas that is heavier than air and can be extremely hazardous if the system is improperly used or installed.

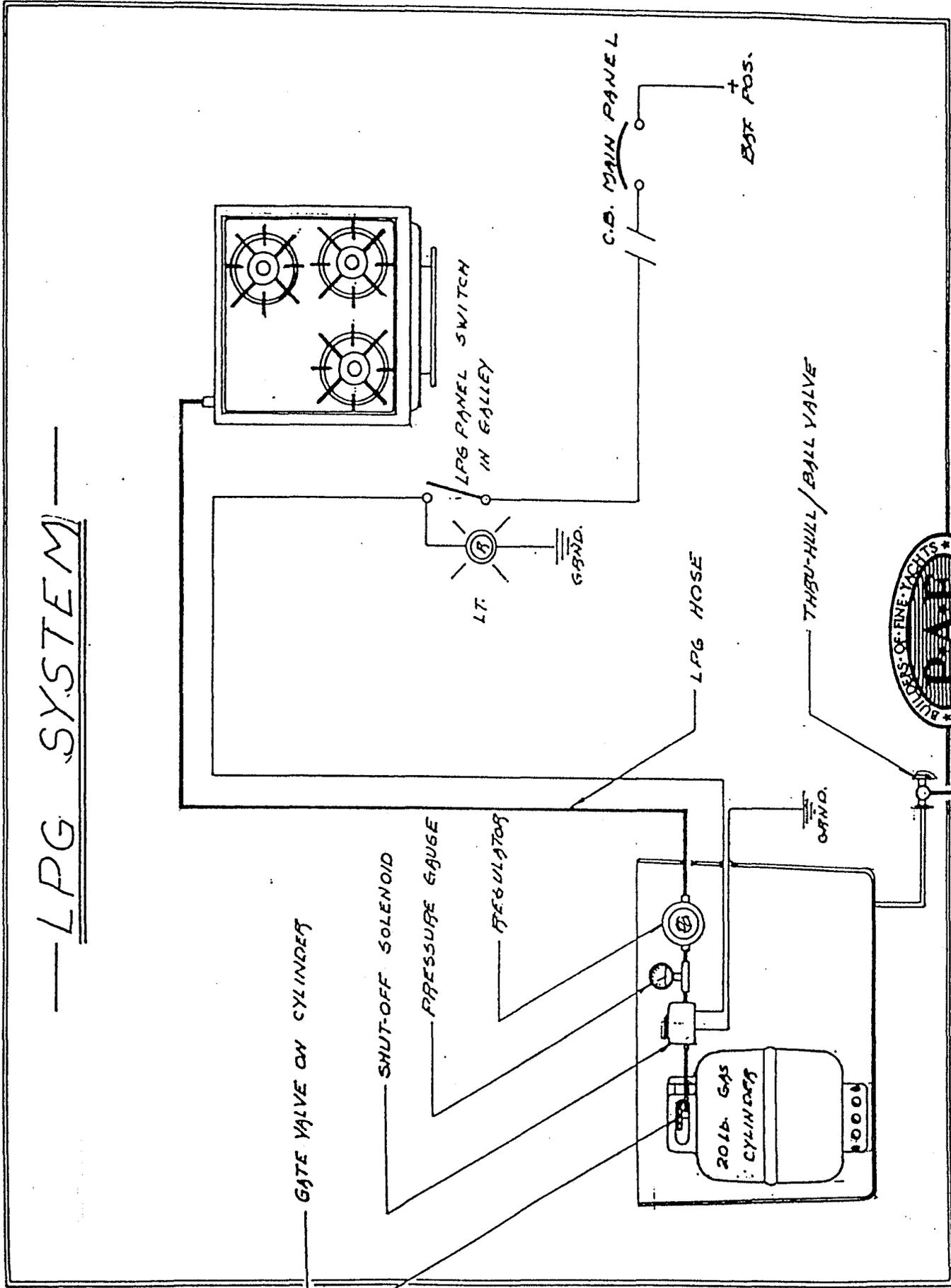
Any time the stove or oven is not being used, the electric solenoid shut-off should be turned to the "Off" position. If the stove is not to be used for an extended period, the manual valves should also be closed as a further safeguard.

When using the stove, it is recommended that the propane lines be purged of fuel by shutting off the solenoid valve while the burner is still lit. This will allow the excess propane to burn off, insuring that with the system shut down, the propane is isolated within the vented locker.

We recommend that all propane systems be provided with a pressure gauge located between the propane bottles and the regulator and shut-off valve. This pressure gauge serves a number of purposes. It can indicate the amount of propane left in the bottles but more importantly, it can be a useful tool in safeguarding against leaks.

When all the stove valves are in the closed position, the manual shut-off valves can be closed at the tanks. If the pressure gauge reading drops steadily, this is indicative of a propane leak somewhere between the propane valves and the stove burner valves. The entire system should be soap tested and the leak found and corrected before any further use of the stove and oven. If the smell of propane is noticed inside the yacht away from the stove, vacate the boat immediately. Without turning any switches, shut off the propane valves at the propane locker and get assistance from the Coast Guard or Harbor Patrol. If it is not practical to vacate the boat, it is suggested that all hatches and ports be opened and the boat aired by manually fanning with sheets, magazines, etc. Do not turn on the blower, motor, or activate any electrical appliances. If an electrical appliance is operating, allow it to run--do not turn it off as the arcing of any switch can cause ignition of the propane.

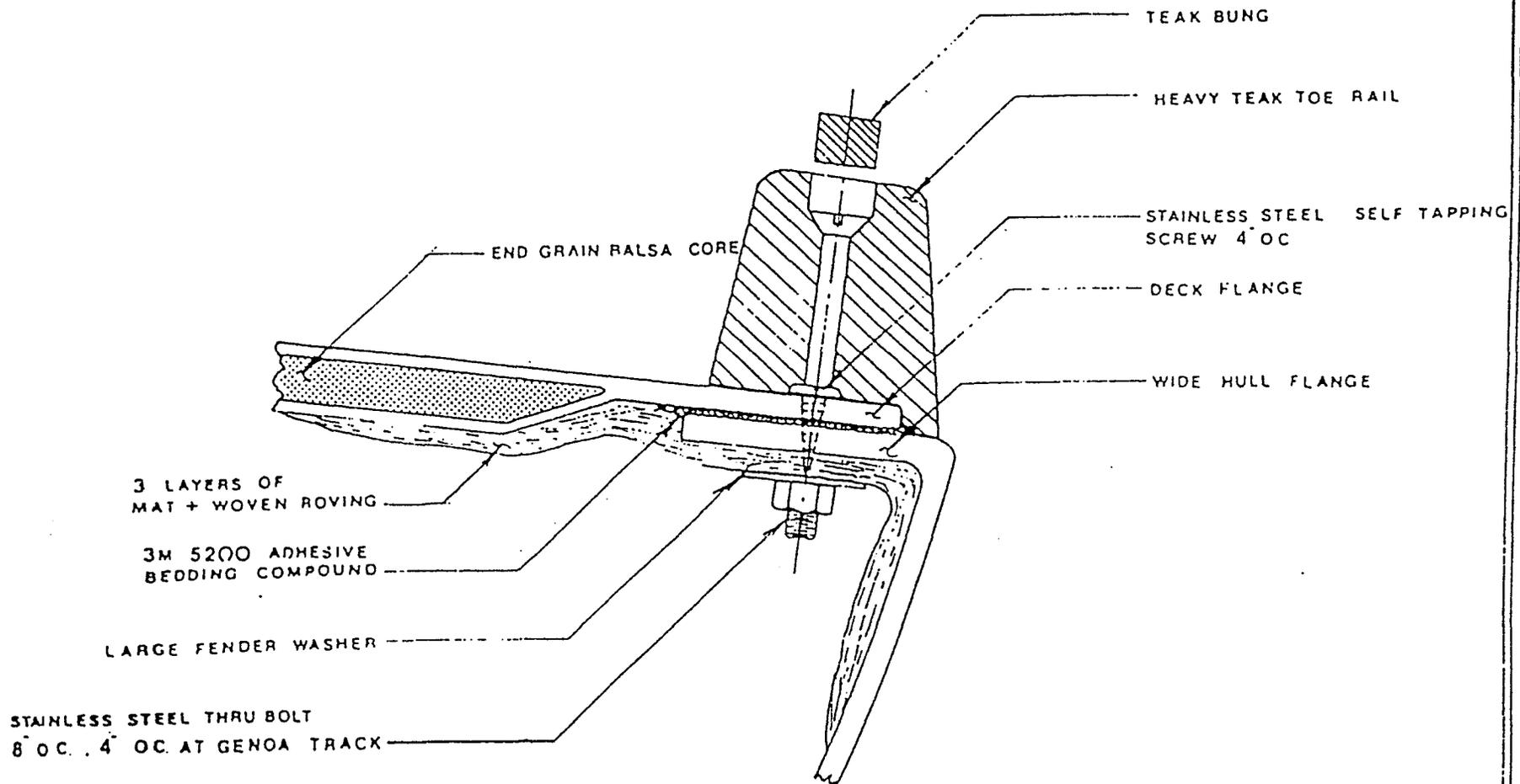
LPG SYSTEM



12. HULL AND DECK

The MASON 44 is designed and constructed to meet or exceed specifications set forth by the AMERICAN BUREAU OF SHIPPING and LLOYDS for fiberglass yacht construction. The hull is hand laminated with four full-length longitudinal stringers. Heavy laminated sub-floors, double bonded structural bulkheads, and interior furniture assure a rigid structure capable of withstanding a great deal of abuse. A balsawood core is used to separate two hand laid laminates of the one piece molded fiberglass deck. The deck is secured to the hull using a combination of 3M52000, heavy fiberglass bonding and a superior mechanical means of fastening which is rarely used in fiberglass production boats. The MASON 44 has the toughest deck to hull joint we know of in the industry. Strength is derived through superior design and generous use of quality materials.

DECK TO HULL JOINT



13. ZINC AND GROUND SYSTEM

13.1 GENERAL

The MASON 44 is provided with a DC negative ground system. The negative battery terminal ties into the engine which has continuity with shaft, propeller, rudder post, thru hulls, standing rigging, spars and a zinc plate which is located on either side of the underbody aft. These zincs attach to studs which are bonded to the hull itself.

The zincs are designed to be sacrificial and protect other metals used below the waterline, namely the bronze thru hulls, propeller, stainless steel rudder, and propeller shaft. Replacement frequency of zincs depends upon the condition which the boat is subject to. It is not uncommon in "hot" areas to replace zincs four times a year or more. Generally, replacement is needed about every 6 to 8 months. To prevent electrolytic damage, it is recommended that the zincs be inspected every 90 days.

A lack of deterioration of zincs indicates that the continuity between the bonded system and the zinc has possibly been interrupted. This can be easily checked by using an ohm meter and checking for continuity between the rudder shaft (which zinc is attached to) and the thru hulls, propeller shaft, etc.

If continuity is not present, there may be a loose fastening holding the bonding wire to the thru hull or fitting, or the wire may be broken. This must be investigated and corrected immediately.

Zinc is available in flat stock and can be cut and drilled to match the stud pattern. P. A. E. Yacht Builders carry zinc plates precast and drilled which can be ordered through your MASON dealer.

13.2 ELECTROLYSIS (galvanic corrosion)

Electrolysis, better described as galvanic corrosion, occurs when two or more different metals are immersed in an electrolyte and are in contact with each other or are electrically connected by a conductor. Salt water and fresh water are both electrolytes. The least noble of the two metals will begin to corrode while the more noble will resist corrosion.

13.3 Galvanic corrosion can be prevented or reduced greatly if the boat keeper follows some simple prevention measures.

1. Always keep under water hardware painted with anti-fouling paint. Acting as an insulator, paint will suppress current flow and reduce galvanic action.

Do not paint the propeller or zinc plates.

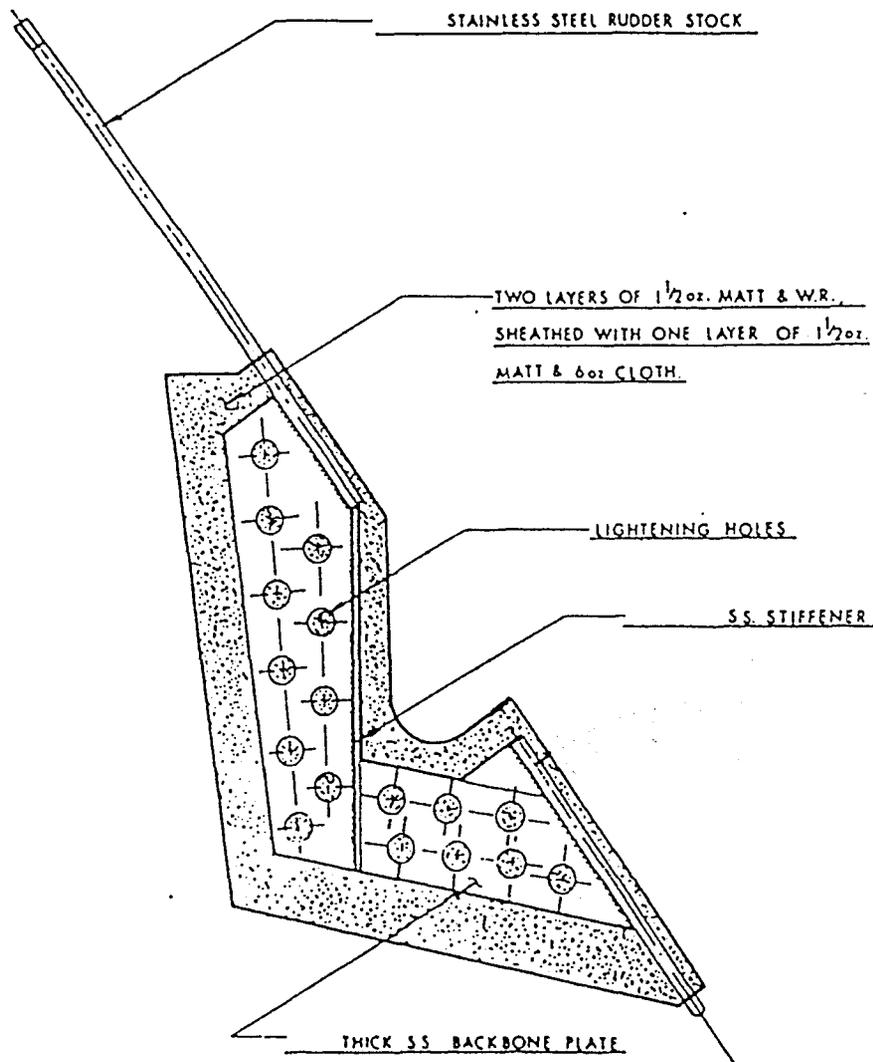
2. Be sure all hardware is grounded to a common ground on the boat with one bonding wire.
3. Replace zinc plates periodically.

14. RUDDER

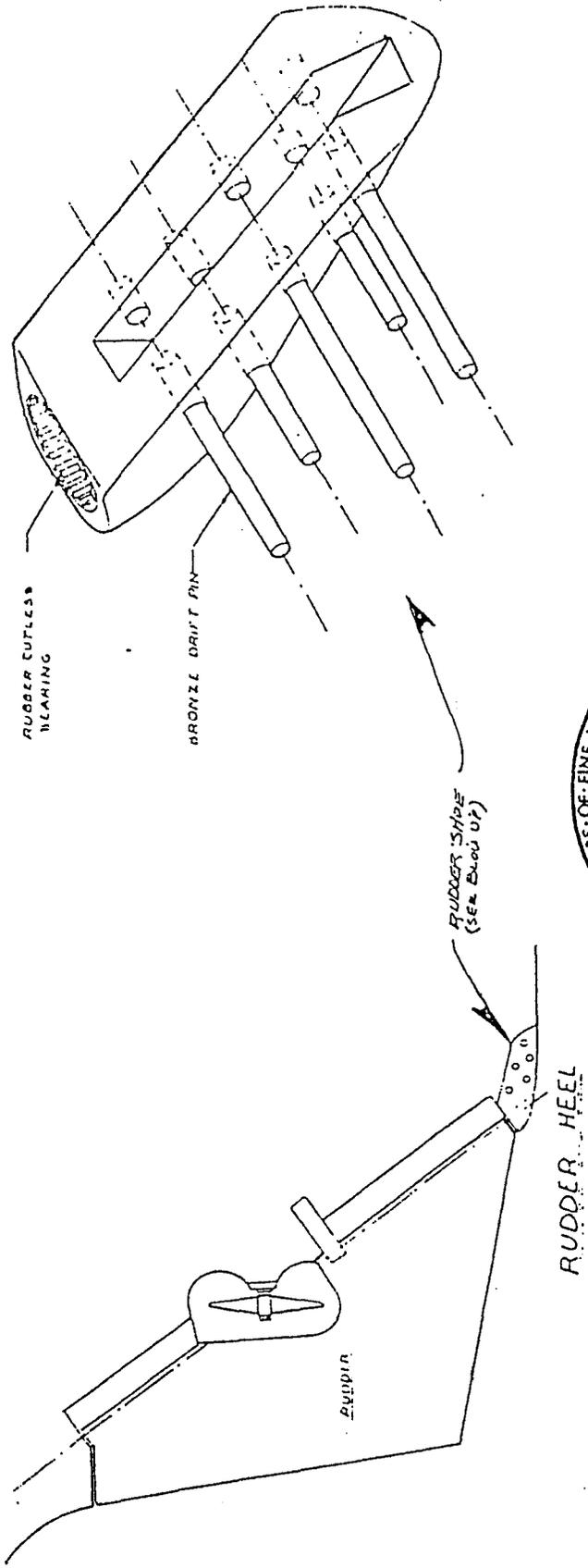
14.1 CUTLASS BEARING REPLACEMENT

To replace the rubber cutlass bearing in the rudder heel, the bronze drift pins must be removed. Before removing the pins, the rudder must be supported from underneath due to its heavy weight. Once the pins have been removed, the heel should be easily removed and the cutlass bearing replaced.

RUDDER CONSTRUCTION



RUDDER INSTALLATION



15. ELECTRIC SYSTEM AND PANEL

The standard MASON 44 is equipped with a deluxe custom P.A.E. electrical panel and battery system. The engine starting battery and house batteries are recharged from the engine alternator of an 40 amp Lewco charger. Battery conditions can be measured by a volt meter on the electrical panel. The engine starting battery and house batteries are isolated by a diode protection system so that the engine can always be started even if the house batteries are totally discharged.

Care should be taken when operating the battery charger. Your MASON should never be left unattended with the charger set in the "non-automatic" position as this could lead to overcharging and battery damage. It is acceptable practice to leave the charger set in the "norm" position when your MASON is unattended. The higher "non-automatic" setting is used only for fast, controlled recharging.

Nine DC functions are controlled from a panel in the cockpit located on the steering pedestal. This panel is activated by a switch on the main panel labeled "cockpit panel".

Should the engine starting battery become discharged, it can be temporarily paralleled to the house batteries by depressing the "battery paralleled" button on the cockpit panel.

The standard MASON 44 is equipped with "Air Pax" magnetic circuit breakers on both the AC and DC circuits. These trip-free breakers have amperage ratings selected to protect the wiring circuits and accessories to which they are connected. The panel is equipped with voltage and amperage meters for the AC and DC systems. These meters indicate the incoming voltage from the shore power connecting the state of charge of the batteries and the electrical system is equipped with a reverse polarity indicator light. Should this light glow, it means that the polarity of the hot and neutral wires is reversed. Your MASON 44 was inspected for correct polarity of the on-board AC wiring prior to delivery, so the most likely cause of a polarity problem would be the dock wiring or your shore power cord. In any case, the problem should be corrected immediately to prevent the possibility of electrolysis corrosion or electric shock.

MASON YACHTS

LIMITED WARRANTY

1. This Limited Warranty is extended to the original purchaser of the yacht at retail, and is not extended to any subsequent purchaser of the yacht, nor is this Limited Warranty transferable. The obligations of Pacific Asian Enterprises, Inc. (hereinafter referred to as "PAE") under this Warranty shall be further limited if the yacht is used for hire or charter. If the yacht is used for hire or charter PAE, in its sole discretion, shall determine whether or not the requested repair is covered by this Warranty or whether or not this Warranty has been voided due to abuse, misuse or neglect caused by the hire or charter of the yacht.

2. This Warranty applies to those components of the yacht manufactured by or built by PAE, or items which PAE has manufactured by various suppliers including hull, keel, mast, standing rigging, deck, interior bulkheads, rudder, rudder post, plumbing, wiring, and electrical panel and sails. Items not covered under this Warranty are: gel coat coloration, exterior finish of exterior hull below waterline, upholstery materials, minor cracking or checking of teak trim or teak decks and toe rail. Engines, pumps, winches, toilets, and any items not specifically manufactured for or by PAE are covered by their own individual manufacturer's warranties. All original warranty registration and validation cards are provided to original buyer at delivery. All cards should immediately be filled out and signed as individually specified.

3. To validate the Warranty, the "Warranty Registration Card" must be mailed to Pacific Asian Enterprises Inc., P. O. Box F-A, Dana Point, CA 92629, as soon after the commissioning date as possible. In order to obtain performance of any Warranty obligation, the owner must report in writing within 30 days of its discovery, any claim in respect of defects in material or workmanship to the MASON Dealer from whom he purchased the yacht, and to PAE Inc., at Dana Point. When reporting a claim, the owner must provide the following information: (a) full details of the problem, (b) model and hull number of the yacht on which the claim is being made, (c) full name and address of the owner, (d) location of the yacht, (e) date of commissioning.

3A. Upon determination by the MASON Dealer and/or PAE that the defect is warrantable, the dealer and/or PAE will effect or authorize repairs. The Dealer and/or PAE may require that the yacht or defective parts be returned to the Dealer or PAE or an authorized agent of PAE and/or Dealer. The Dealer and PAE neither assumes nor authorizes any person to assume for Dealer or PAE any liability or expense in the replacing of parts or

corrections of defects in the yacht within Warranty period, except when such expenses are authorized in advance and in writing by PAE and/or Dealer.

If Warranted components are repaired or replaced under terms hereof, the terms of this Limited Warranty shall cover such component for a period of 90 days from the date of repair or replacement or until the end of the original warranty period, whichever is later.

4. PAE accepts no responsibility for liability through the failure of any yacht or part, except to repair or replace the defective part. Obligations of PAE under this warranty are limited to claims which shall have been received by the dealer or by PAE within the warranty period, and which shall, to the satisfaction of PAE, be determined to have resulted from defective material or workmanship.

5. It is a condition of this warranty that the yacht has been given reasonable care, and that the warranty claim has not resulted from accident, negligence, misuse, or from unauthorized alterations by the original purchaser.

6. PAE reserves the right to improve its products through changes in design and material without obligation to incorporate such changes in yachts of prior manufacture.

7. The duration of the Limited Warranty protecting the fiberglass hull structure, excluding the deck and all fittings and attachments to the hull, shall be two (2) years from the date of commissioning. The Limited Warranty covering the other items as listed in paragraph 2 above shall be for one (1) year from the said date of commissioning.

All other implied warranties including those of fitness and merchantability, shall continue for one (1) year from the said date of commissioning.

8. PAE shall not be responsible for any damage or defect which shall occur upon the unreasonable use of the yacht by the original purchaser after said purchaser has notice of any defect.

9. This Limited Warranty does not extend to any other damages which the original purchaser claims to have suffered by reasons of such defects.



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