

# ***Mason 43***

## **DESIGN AND CONSTRUCTION** **FEATURES**

PACIFIC ASIAN ENTERPRISES P.O. BOX 4848 DANA POINT, CA. 92629

(714) 496-4848

# **PACIFIC ASIAN ENTERPRISES, INC.**

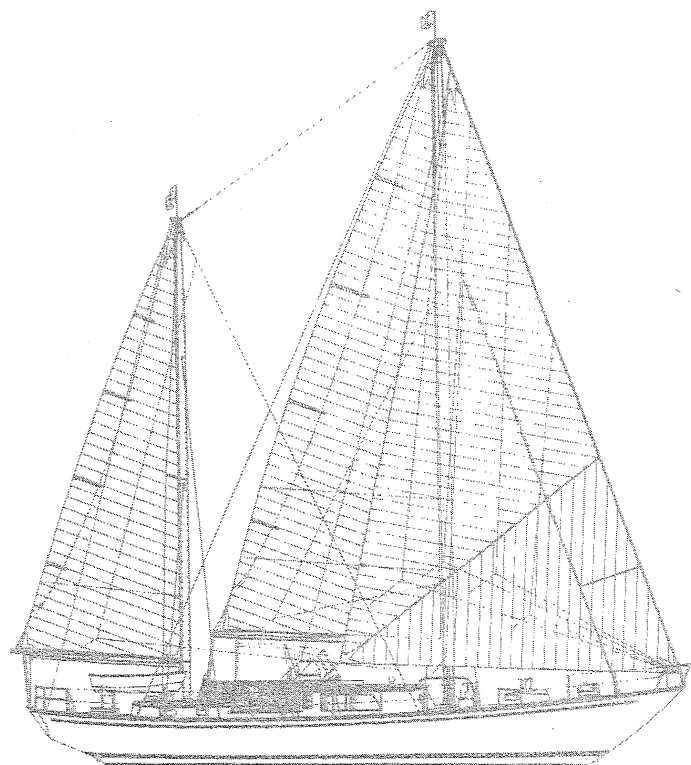
**P.O. BOX FA**

**DANA POINT, CALIFORNIA 92629-0937 U.S.A.**

**(714) 496-4848**

**TELEX 182-285**

Pacific Asian Enterprises, Inc.,  
reserves the right to improve its products.  
The information within this study package  
should not be regarded as an absolute  
specifications catalog.



# PACIFIC ASIAN ENTERPRISES, INC.

P.O. BOX FA

DANA POINT, CALIFORNIA 92629-0937 U.S.A.

(714) 496-4848

TELEX 182-285

Dear Customer:

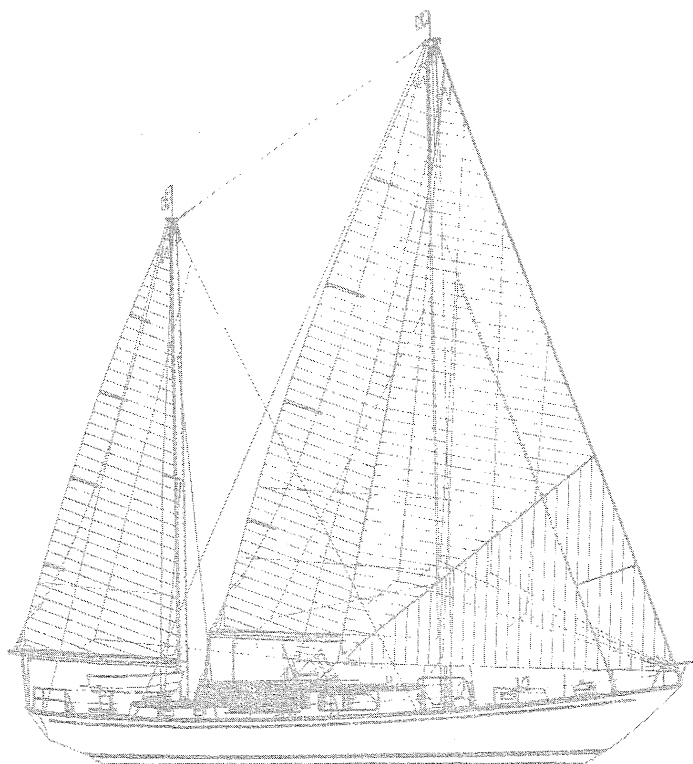
The following information is to familiarize you with the many features incorporated into the MASON 43. As you read through the many technical descriptions which lie ahead, we hope you will come to appreciate that there is much more to a MASON 43 than that which meets the eye upon your initial inspection.

For the past seven years, we at Pacific Asian Enterprises have been true to our commitment to provide the finest offshore sailing yachts possible. There has never been a sophisticated marketing campaign as we have relied upon merits of our finished boat to sell itself. Most MASON owners are long time yacht owners and recognize the solid integrity, timeless beauty, and uncompromised overall performance that our MASON 43 has to offer.

Please review the information carefully as the purchase decision of an expensive yacht is an important one. We hope that you will recognize the exceptional value of our boat and the solid, no nonsense concept which we strongly believe in.

Cordially,

PACIFIC ASIAN ENTERPRISES, INC.



## CONTENTS

1. Hull and Deck Structure
  - Lloyd's Certification
  - Laminate schedule and conditions
  - Longitudinal and transverse stringers
  - Hull to deck joint
  - Bulkhead attachment
2. Engine and Drive Train
  - Engine and transmission
  - Propeller, shaft, bearings, and coupling
  - Placement advantages
3. Electrical System
  - Main electrical panel
  - Engine starting battery
  - Battery charging
  - AC functions
  - Generator
  - Cockpit panel
  - Wiring
  - SSB grounding
  - Electrolysis and lightning protection
4. Fresh Water System
  - Tankage
  - Selection manifold
  - Inspection and flushing
  - Construction
  - Water heating
5. Fuel System
  - Diesel fuel capacity and location
  - Selection manifold
  - Gauges

5. Fuel System Continued

Inspection and removal of tanks

6. Marine Head, Holding Tank, and Shower Sump System

Holding tank

Toilet

Par "Y" valve and sewage removal

Shower water removal

Bilge pumping

7. Rudder and Steering Gear

Pedestal and steering mechanics

Emergency tiller system

Rudder construction

8. Deck Hardware

Materials used

Attachment of genoa track

Winches

Chainplates; design, fabrication and attachment

9. Spar, Standing and Running Rigging, Sails

Spar features

Turnbuckles and standing rigging

Blocks and Running Rigging

Running backs

Sails

10. Accommodations

Cabin plan, joiner work, varnish

Ventilation: ports, dorades, and hatches

Storage

Questions and answers

11. Design Philosophy



# Lloyd's Register of Shipping

Certificate No. 100603

Date 21st July, 1981 Office Taipei

This is to certify that at the request of

"TA-SHENG YACHT BUILDING CO., LTD."

The above works were examined by the undersigned on 2nd June 1981 and previously and the conditions and facilities of the establishment, as examined, were found to be acceptable for the moulding of G.R.P. Yachts and Small Craft under the Society's Survey.

However if these premises are not under regular attendance by the Society's Surveyors, it may be necessary before undertaking moulding survey work for the conditions and facilities to be re-confirmed if a period exceeding three months should elapse since this inspection or since moulding survey work was last undertaken.

The plans for the following designs have been examined and the scantlings and arrangements as shown and amended thereon are such that the hulls can be moulded under the Society's supervision with a view to the issue of a Hull Construction Certificate

MASON 43 TYPE G.R.P. YACHT

Any additional designs which are approved by the Society may be moulded under the Society's Supervision with a view to the issue of the relevant certificate.

*B. Salt*

B. Salt

Surveyor to Lloyd's Register of Shipping

"In providing services information or advice neither the Society nor any of its servants or agents warrants the accuracy of any information or advice supplied. Except as set out herein neither the Society nor any of its servants or agents (on behalf of each of whom the Society has agreed this clause) shall be liable for any loss damage or expense whatsoever sustained by any person due to any act or omission or error of whatsoever nature and howsoever caused of the Society its servants or agents or due to any inaccuracy of whatsoever nature and howsoever caused in any information or advice given in any way whatsoever by or on behalf of the Society, even if held to amount to a breach of warranty. Nevertheless, if any person uses the Society's services or relies on any information or advice given by or on behalf of the Society and suffers loss damage or expense thereby which is proved to have been due to any negligent act omission or error of the Society its servants or agents or any negligent inaccuracy in information or advice given by or on behalf of the Society then the Society will pay compensation to such person for his proved loss up to but not exceeding the amount of the fee (if any) charged by the Society for that particular service information or advice, or that part thereof which

## 1. Hull and Deck Structure

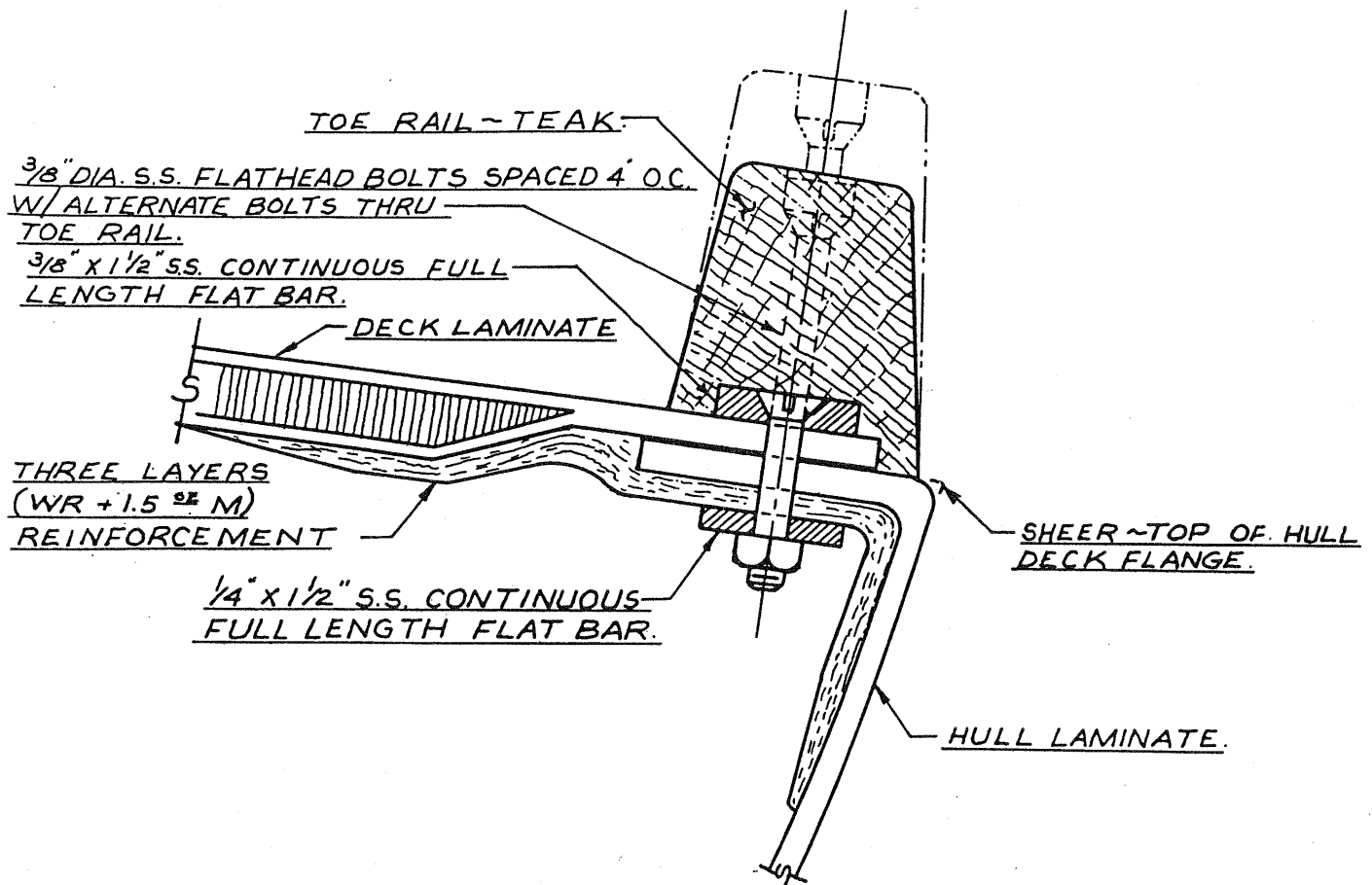
The MASON 43 is designed and constructed to meet or exceed specifications set forth by the American Bureau of Shipping and Lloyd's for fiberglass yacht construction. Lloyd's hull and deck certification is available and listed as an option on current MASON 43 pricing.

All lamination takes place in dehumidified air-conditioned lay-up rooms. Materials such as fiberglass, resin, foam, etc., are also stored within climatically controlled areas as mandated by Lloyd's regulations. Every MASON is built to the same rigorous standards; the certification fee is simply the cost to have a Lloyd's surveyor document the lay up at various stages. See attached Lloyd's certificate.

The MASON 43 hull is completely hand laminated with eight full-length longitudinal foam-filled stringers. Heavy laminated transverse stringers, double bonded 3/4" structural bulkheads, and joiner bulkheads used for interior furniture assure a rigid structure capable of withstanding a great deal of abuse. See illustrations.

A vertical-end grain balsa core separates two hand laid laminates of the one-piece molded fiberglass deck. The deck is secured to the hull using a combination of polysulfide solution, heavy fiberglass bonding, and a superior mechanical means of fastening which is rarely used in fiberglass production boats. A full-length stainless steel piece of flat stock similar to sail track is used on the bottom of the hull flange and on the top of the deck flange, sandwiching the bonded seam. The stainless steel flat bars are thru-bolted with 3/8" bolts on 4" centers. The upper stainless flat bar is covered with a heavy teak toe rail. The MASON 43 has, without question, the toughest deck-to-hull joint in the industry.

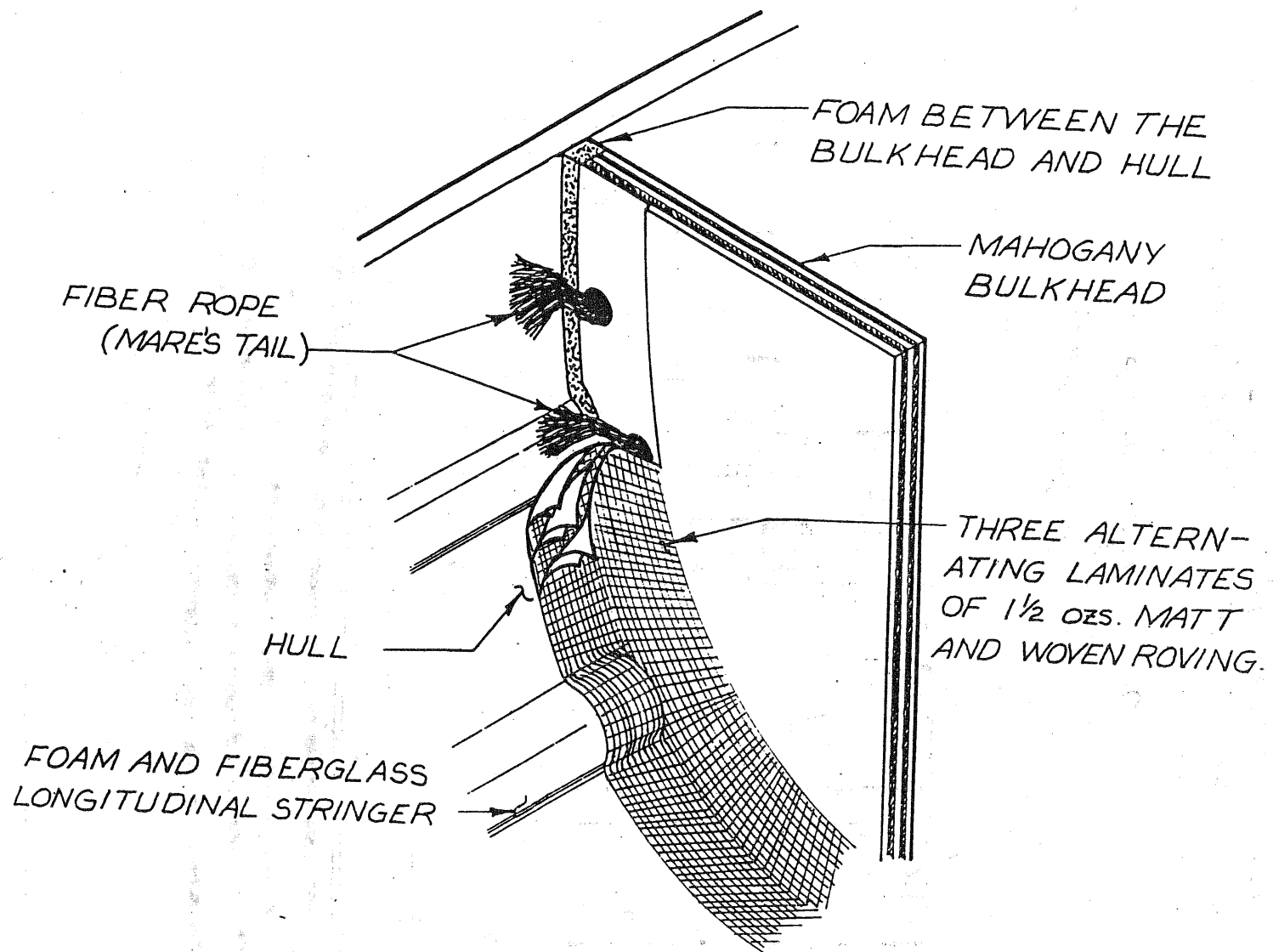
It should be noted that there are no less than six 3/4" structural bulkheads in a MASON 43, all of which are attached with fiber rope (mare's tails) and three alternating laminates of 1-1/2 ozs. matt and woven roving on both sides of the mahogany bulkhead. The foam between the bulkhead and the hull insures no hard spots on bulkhead transfer visible from the yacht's exterior. Every joiner bulkhead, of which there are dozens, is also attached to the deck and hull using two alternating layers of fiberglass matt and woven roving. Also note one of eight full-length foam and fiberglass longitudinal stringers. No other yacht offers this level of security and peace of mind.



— DECK-HULL JOINT —

— MASON 43 —

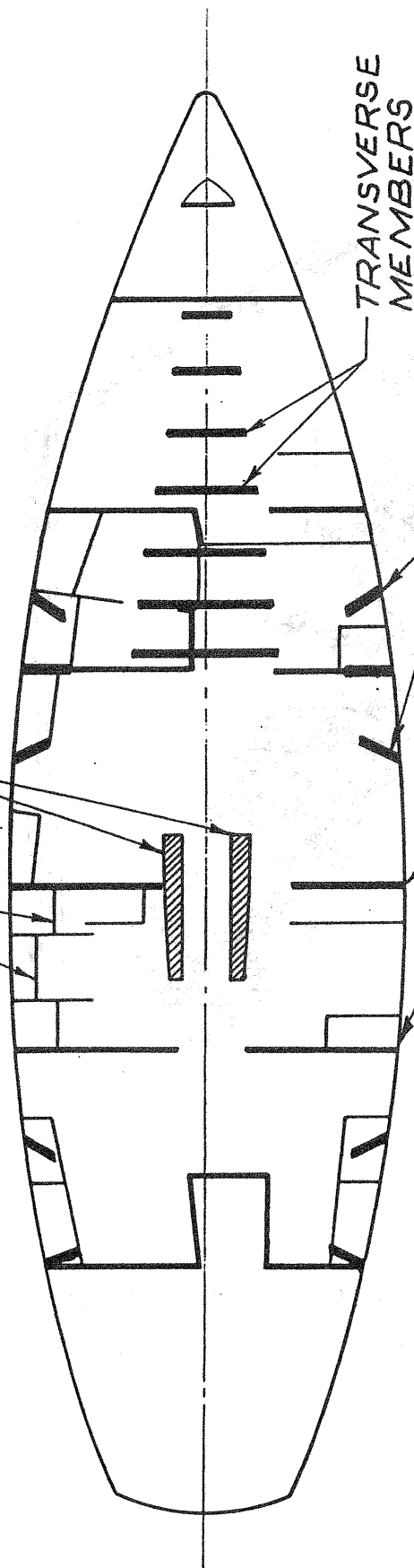




RUGGED ATTACHMENT OF ALL  
STRUCTURAL BULKHEADS THRU OUT  
A MASON 43

THE STRUCTURAL INTEGRITY  
OF A MASON 43 IS UNMATCHED.

JOINER BULKHEADS  
ENGINE MOUNTS



EIGHT FULL LENGTH  
LONGITUDINAL STRINGERS  
PROVIDE MAXIMUM  
STRENGTH AND STIFFNESS

TRANSVERSE  
MEMBERS  
CHAINPLATE WEBS  
STRUCTURAL BULKHEADS



## 2. Engine and Drive Train

All MASON 43s are fitted out with a Perkins 4-108 marine diesel with a Borg Warner series #71 hydraulic transmission with a 1.91 to 1 reduction gear. A 1-1/4" stainless steel propeller shaft is used with a three-bladed 18" x 10" propeller.

The propeller shaft is supported with a rubber morse cutlass bearing at the front of the stern tube and another at the rear. The forward cutlass bearing is lubricated and cooled by diverted engine cooling water which is expelled out the stern of the tube. A "Federal Flex" coupling is also provided insuring the system be as smooth-running as possible.

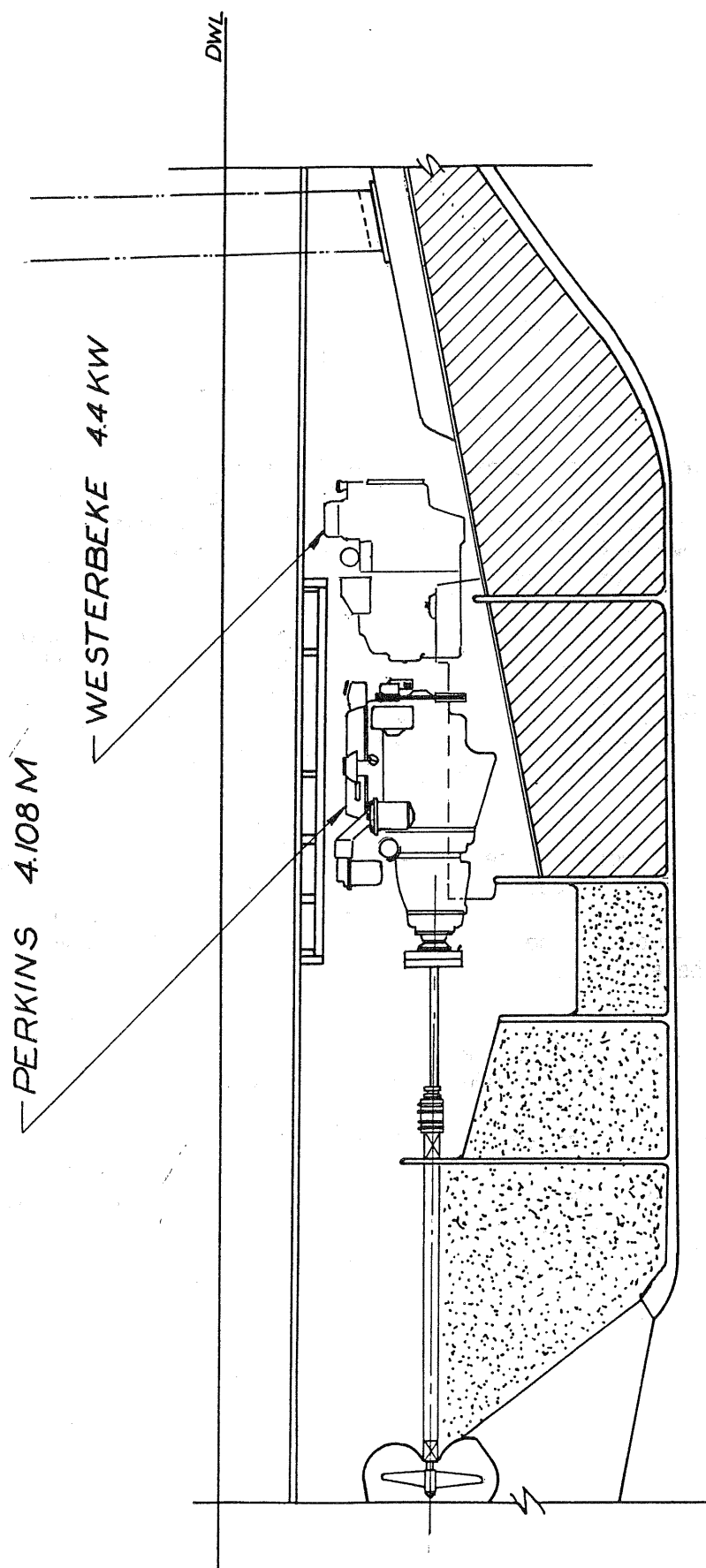
Many engines of comparable horsepower are transferring power through a 3/4" propeller shaft. The 1-1/4" shaft is oversized and the system is supported far beyond normal practice for pleasure boat applications. The drive train on a MASON 43 is designed to commercial specifications and should give thousands of hours of trouble-free use.

The placement of the engine is beneath the cabin sole of the main salon. If viewed from the side profile, it should be noted that the propeller shaft is parallel with the yacht's waterline. The propeller is deep and the thrust is directly out the stern providing very efficient installation. The boat motors extremely well and is very maneuverable during docking due to the effect of the deep prop blast directly against the large rudder.

In addition to excellent performance under power, the noise level is kept at a minimum due to the sound deadening effect of the insulated cabin sole. Another benefit of the engine's location is its contribution to the yacht's righting moment. The weight is kept low where it belongs. For engine service the entire cabin sole is removable and engine access is exceptional.

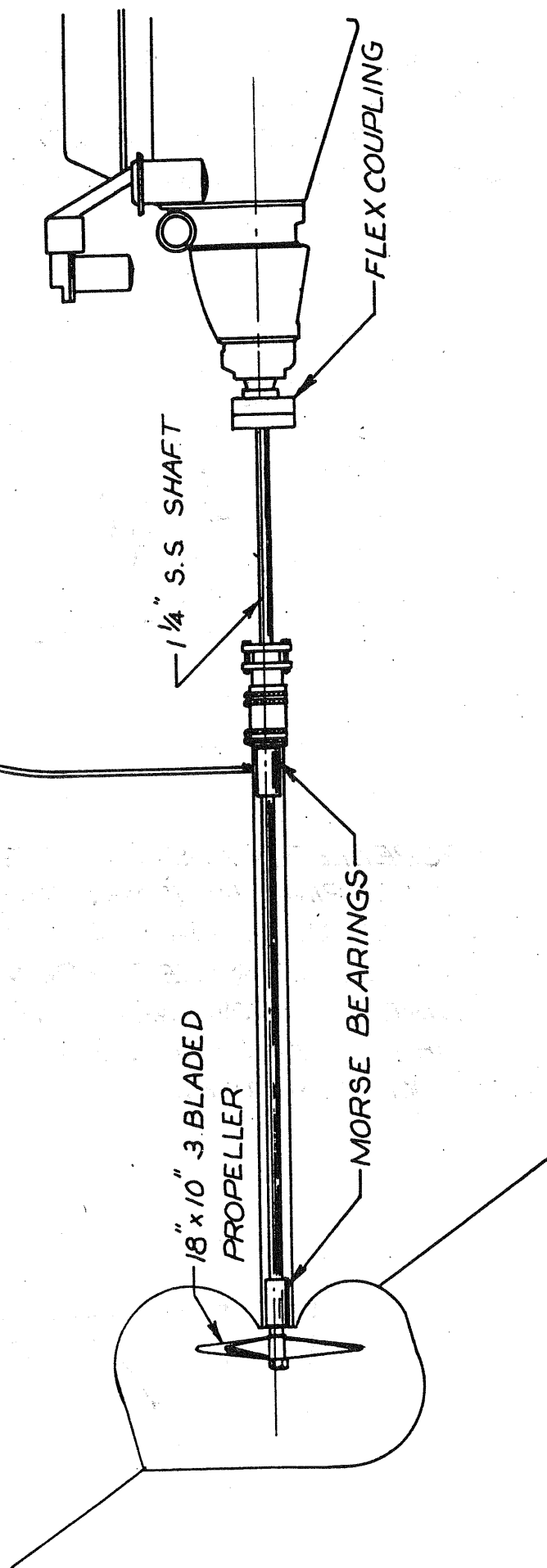
A very deep sump is provided below the engine and a substantial amount of water can be held prior to any danger of machinery damage.

Forward of the engine is sufficient space for a 4.4 kw diesel generator which is offered as a factory option. As with the main engine, the generator weight does not adversely effect the yacht's performance and the noise is minimized by the low centerline location. See the electrical system description for generator accommodation.



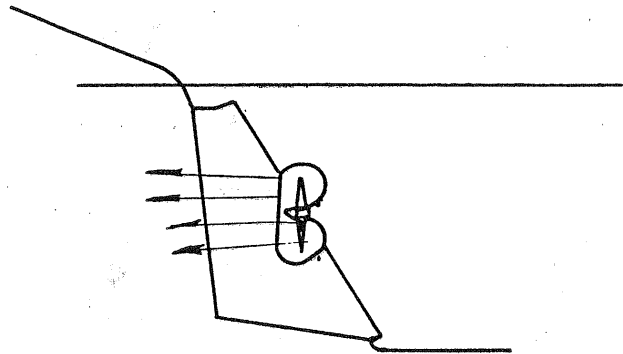
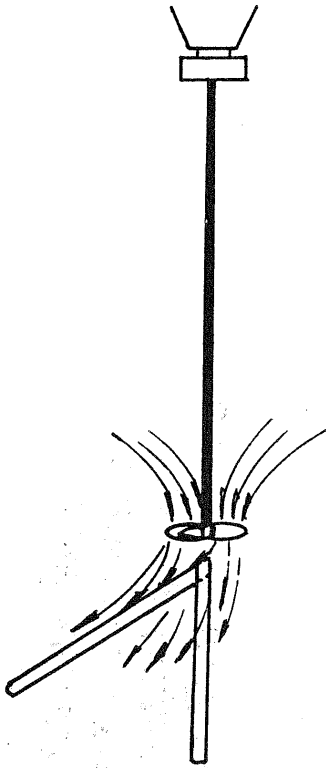
ENGINE AND OPTIONAL GENERATOR ARE LOCATED  
ON THE CENTERLINE, AMIDSHIPS, AND LOW FOR OPTIMUM  
WEIGHT DISTRIBUTION AND PERFORMANCE

WATER COOLED FROM  
DIVERTED ENGINE  
COOLING WATER

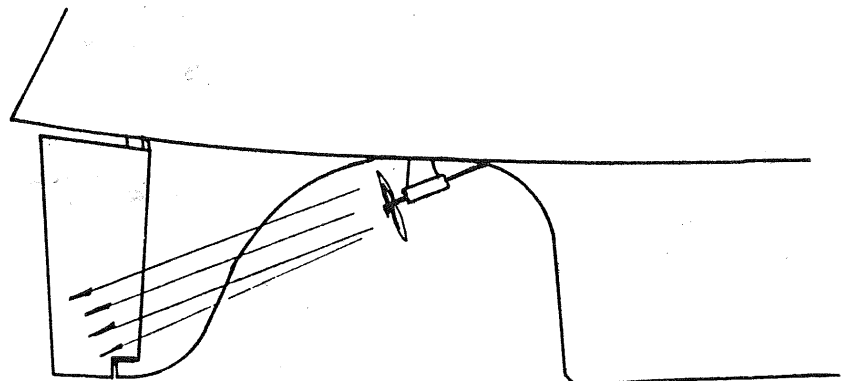
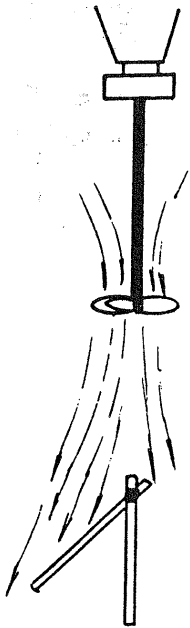


THE RUGGED DRIVETRAIN DESIGNED AND  
BUILT TO COMMERCIAL SPECIFICATION  
GUARANTEES THOUSANDS OF HOURS  
OF TROUBLE FREE OPERATION

IMMEDIATE EFFECT OF PROPELLER  
BLAST AGAINST RUDDER DURING LOW  
SPEED MANUVERING - RUDDER IS EFFECTIVE  
AND CONTROL IS NOT DEPENDANT UPON  
YACHTS HEADWAY.



PROPELLER BLAST DURING LOW SPEED  
MANUVERING BECOMES MUCH LESS  
EFFECTIVE AS WATER BLAST IS SIGNIF-  
ICANTLY FURTHER FROM RUDDER AND  
DIRECTED DOWNWARD - YACHTS MANUVER-  
ABILITY IS MORE DEPENDANT UPON THE  
YACHTS HEADWAY.



### 3. Electrical System

Current MASON 43s are equipped with one of the finest electrical systems available. No expense has been spared in design and manufacture to insure uncompromised quality.

The main electrical panels are manufactured by Pacific Asian Enterprises. The engraved phenolic panel uses magnetic circuit breakers exclusively. The direct current twelve-volt side of the panel consists of engraved circuits for virtually every conceivable DC appliance, including VHF, SSB, radar, satellite navigation, Loran, stereo, plus one spare. These are, of course, in addition to twelve other functions such as range, lights, etc. Gauges are provided to give the operator instant information on DC amperage draw and house and engine battery charge.

Engine starting is accomplished through a single 120 amp-per-hour battery which is located within three feet of the engine starting motor and is isolated from the house batteries. If the engine starting battery failed, a panel switch next to the engine starting switch allows starting off the two 120 amp-per-hour house batteries. Should guests ever inadvertently run the 240 amps of house battery down, the engine starting battery still retains a full charge.

Charging is provided by a standard 40 amp-per-hour "Lewco" battery charger which is totally controlled and monitored from the main electrical panel. Both house batteries and the engine starting battery are simultaneously automatically charged through a diode system. The main engine is also provided with a 55 amp-per-hour alternator which charges both house and engine batteries through a one-way diode system.

Electrical fuel gauges accurately measure the fuel supply in both port and starboard fuel tanks and are incorporated into the main panel.

All AC 120 volt functions are handled by the same electrical panel and both dockside voltage and yacht amperage consumption are measured in two gauges. A reverse polarity light warns of potential trouble to the hefty 50 amp service. Magnetic circuit breakers are provided for all AC functions and additional circuits are included for microwave oven, air conditioning forward and aft, plus one unmarked spare. Double 50 amp breakers protect both the positive and negative inlets insuring optimum protection.

If the optional 120 volt 4.4 kw "Westerbeke" generator is selected, all operation is handled within this well thought out single panel.

The operation of anchor lights, spreader lights, compass light, auto pilot, sailing instruments, strobe light, navigation lights, and windlass are built into an independent panel located behind plexiglass within view and reach of the helmsman. All engine functions are monitored within this panel and alarms warn of high water temperature and low oil pressure. One additional feature generally only seen on much larger yachts is a warning light which indicates starter engagement. More than one starter has been destroyed by staying engaged during engine running.

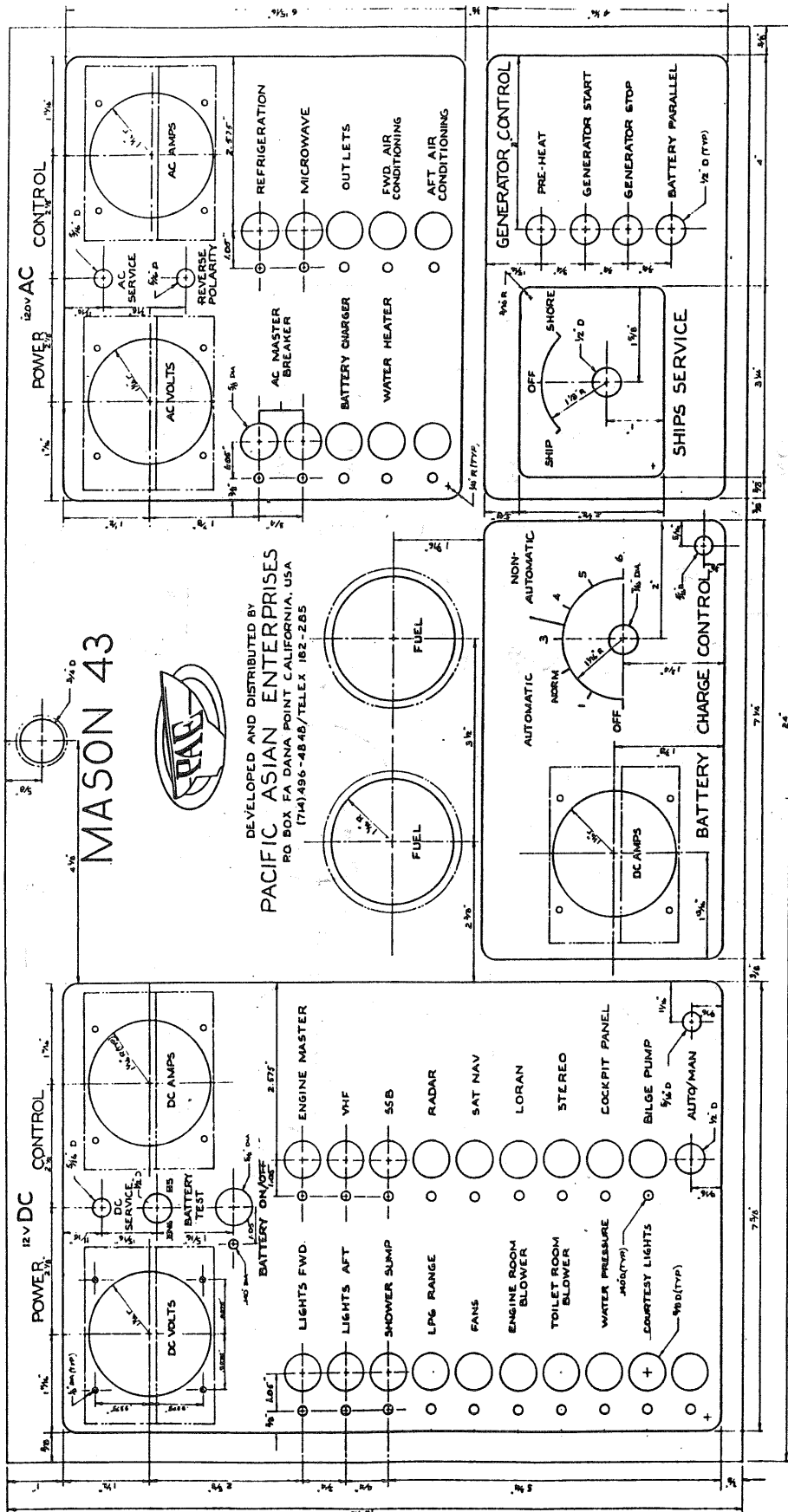
Throughout the MASON 43, all color-coded wiring is protected within the P.V.C. conduits and access is provided through the removable cabin overhead.

A three-inch wide continuous run copper tape is run around the interior of the hull prior to the installation of bulkheads and is used for the ground plane for the installation of single side band marine radios. This ground plane is necessary for SSB radio use and is standard on all MASON 43s, saving the buyer potentially hundreds of dollars should he decide to install this radio gear.

All thru hulls, chainplates, mast steps, etc., are tied together with a No. 10 insulated wire for electrolysis protection.

In a constant commitment to safety, a 9" x 9" silicone bronze plate is recessed into the hull's exterior beneath the mast step and provides a high level of lightning protection by conducting a lightning strike through the aluminum spars and out the large grounding plate.



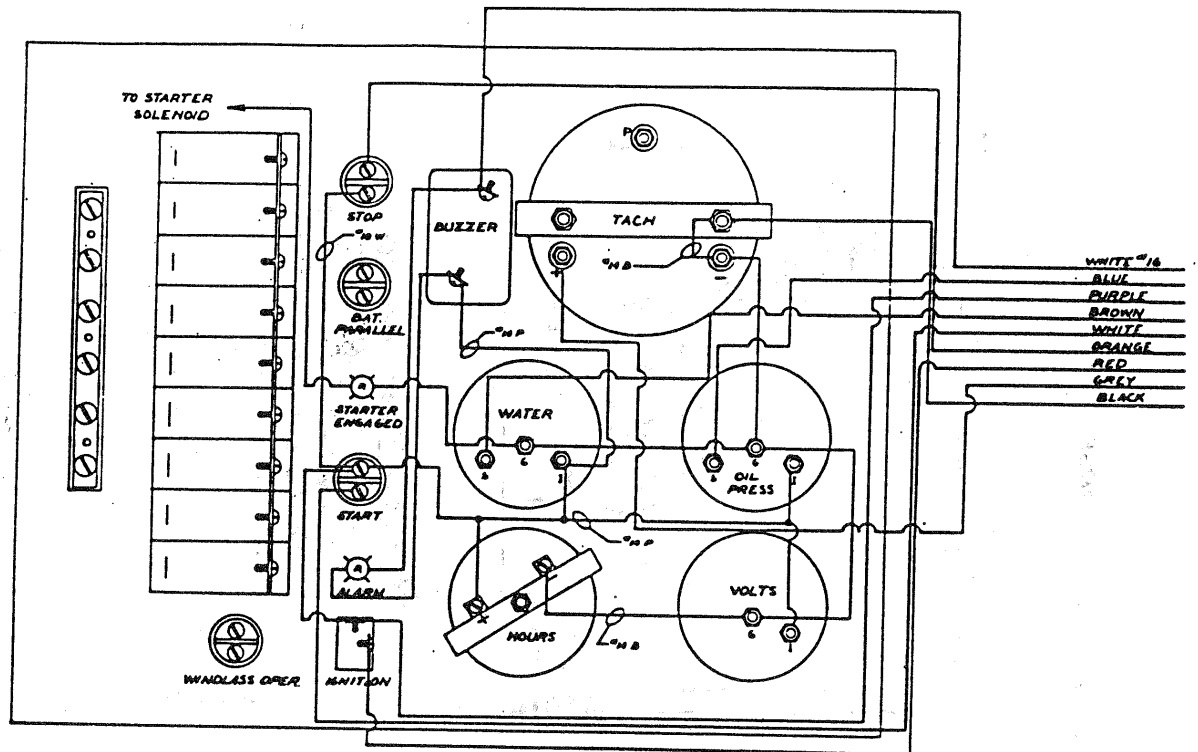


MASON 43 ELECTRICAL DISTRIBUTION  
PANEL MOUNTED AT CHART TABLE

TITLE OF SHEET  
ELECTRICAL DISTRIBUTION  
PANEL MASON 43  
SCALE: FULL DATE: 12/28/1983  
P.A.E.  
NO. 802 FA DANA POINT CA.  
CH0802-802  
DRAWN BY: JEFF LEISMAN  
APPROVED BY: LLS LMS NO. 052  
SHEET 1-2

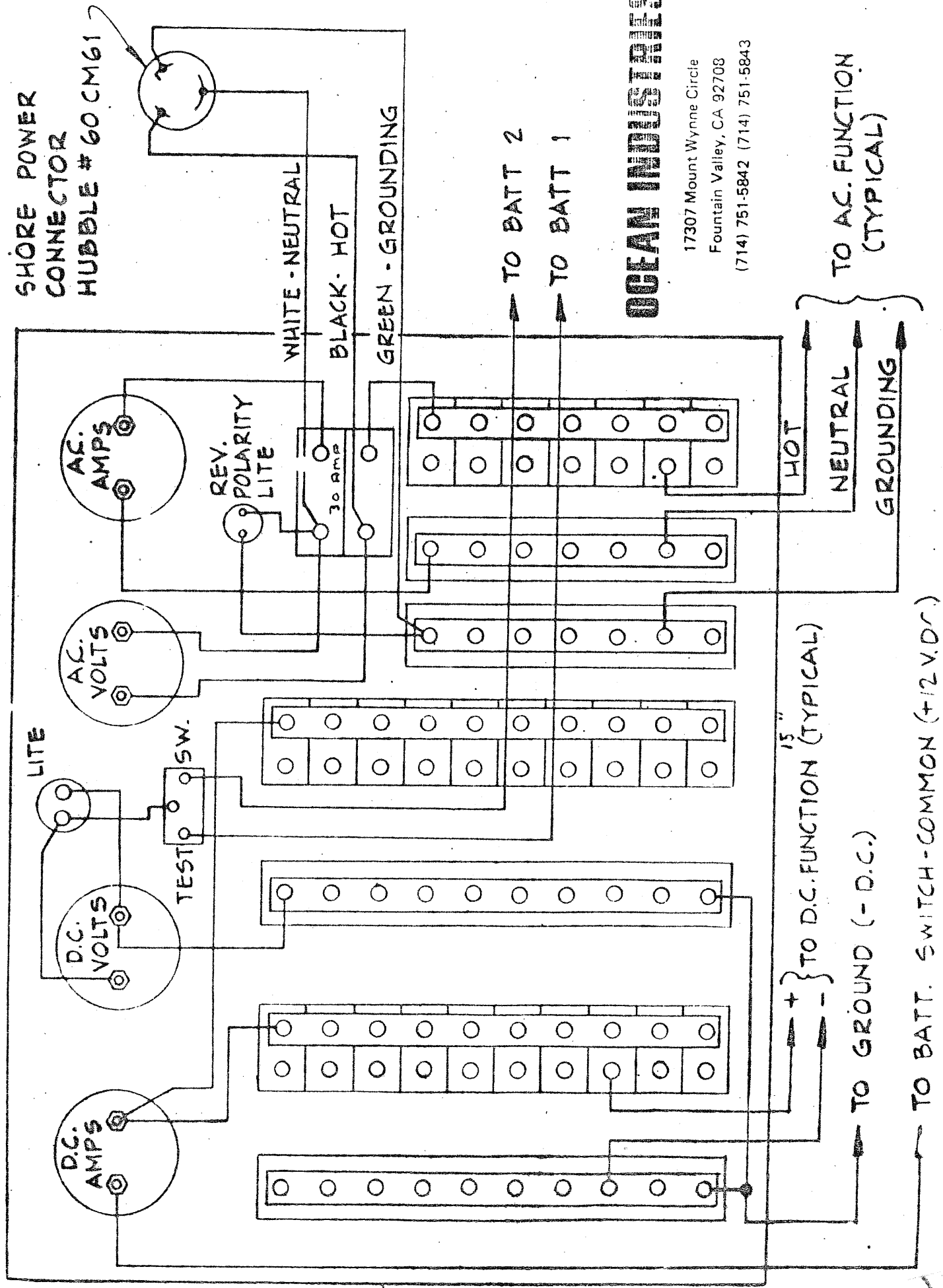
TITLE OF SHEET	ENGINE INSTRUMENT PANEL MASON 43	SCALE: FULL	DATE: FEB. 24, 1983
<div style="text-align: center;"> <b>P.A.E.</b>          PG. 80X FA DANA POINT CA.          (714) 486-4848 96629          DRAWN BY: JEFF LEISHMAN          APPROVED BY: DWG. NO. 058       </div>			





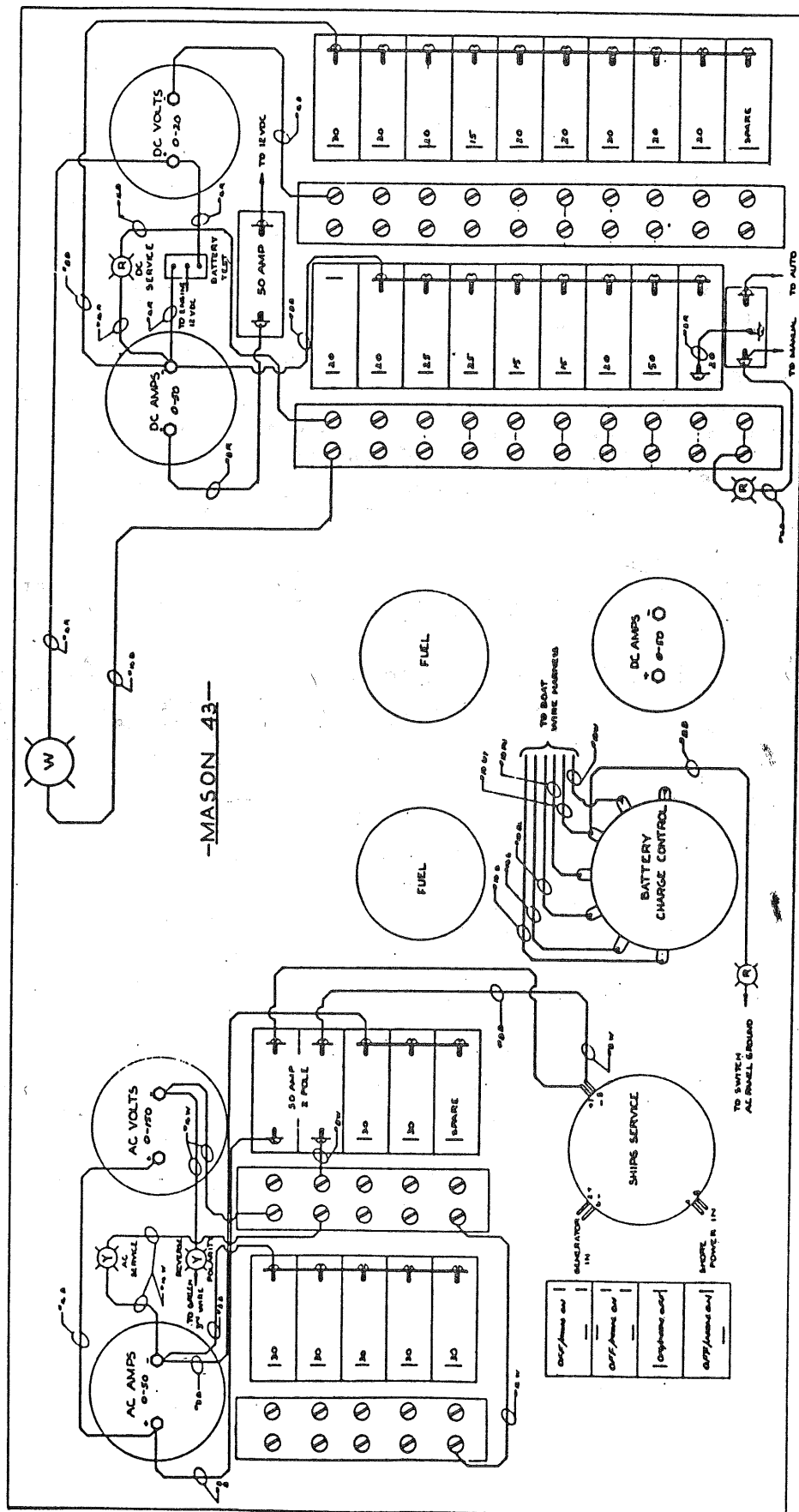
NOTE:  
 1. CONNECT LIGHTS TO ANY  
 PURPLE WIRE TERMINAL  
 2. TACH MUST HAVE SHORT  
 JUMPER, BLACK #14 FROM  
 GROUND TO BRACKET BOLT  
 AS SHOWN

## SCHEMATIC - ENGINE INST. PANEL



OCEAN INDUSTRIES

17307 Mount Wynne Circle  
Fountain Valley, CA 92708  
(714) 751-5842 (714) 751-5843

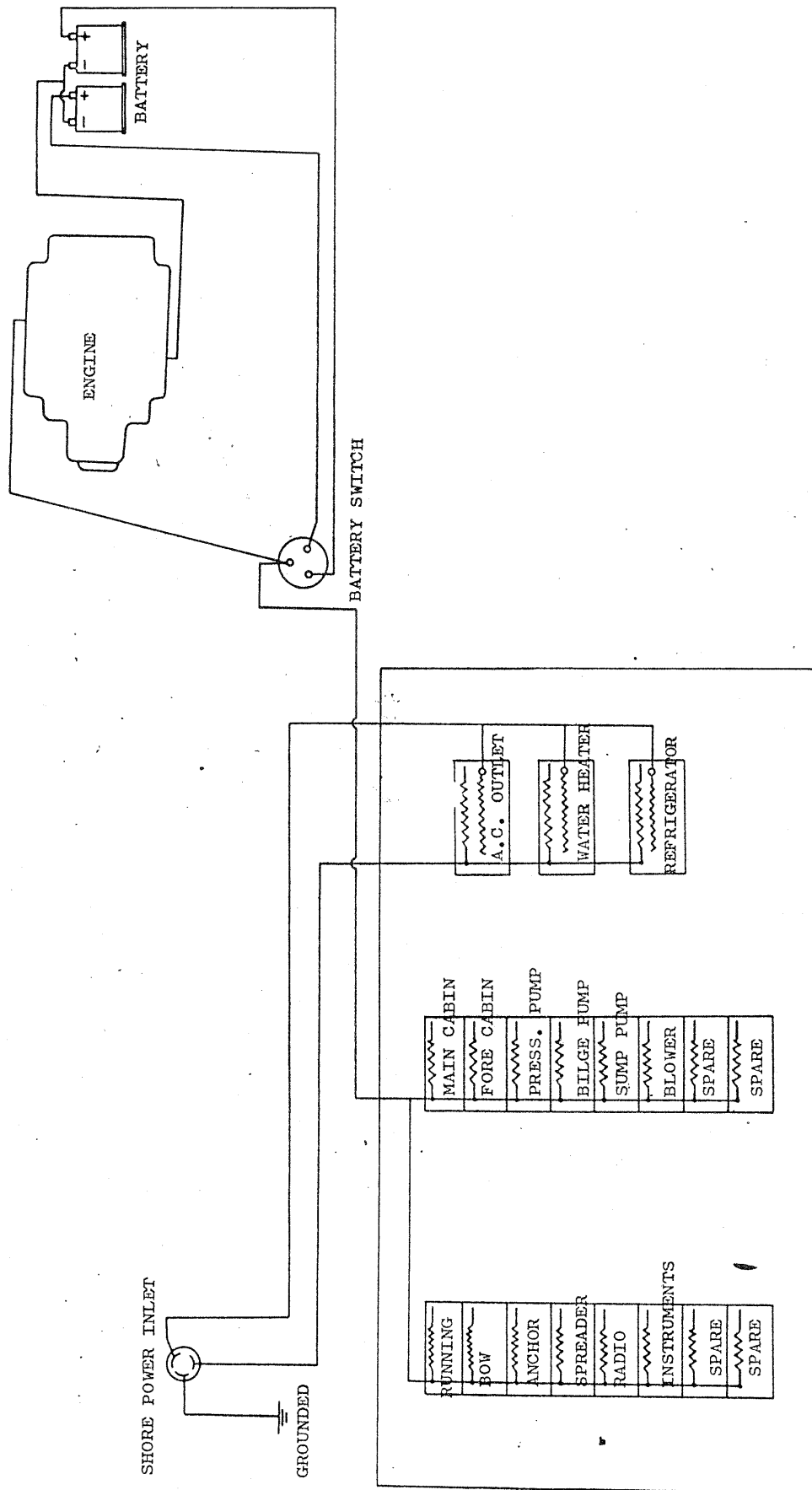


-MASON 43-

SCHEMATIC - ELECTRICAL DISTRIBUTION PANEL

MASON-43 A.C. MASTER CONTROL PANEL  
 D.C.  
 (DASHING-43)

NO. 2



#### 4. Fresh Water System

The MASON 43 carries 205 gallons of fresh water in five stainless steel water tanks. All water is carried from the tanks in a Nautilus brand reinforced hose which is approved by the F.D.A. for use with drinking water. Water is pumped both manually through Whale brand foot pumps and by a Par electric diaphragm pump as part of the pressure side of the system.

A stainless steel fresh water selection manifold which is accessible from the galley allows the operator to draw water from one tank at a time and easily monitor water consumption. The selection manifold is well-marked and simply consists of five lever operated ball valves. Each of the five stainless steel water tanks has an easy-to-use sounding rod and is provided with a large inspection plate should cleaning become necessary. For routine flushing a threaded plug can easily be removed at the lowest part of the tank allowing the flushing water to run into the bilge and be pumped overboard by the yacht's automatic electric bilge pump.

Each water tank is properly baffled and is pressure tested to three PSI prior to installation.

Fresh water is heated by a dual-source water heater. Both AC electricity and engine cooling water are used. The model provided in the MASON 43 is an American brand model designation EMH 11 and has a capacity of eleven gallons.



# VALVES

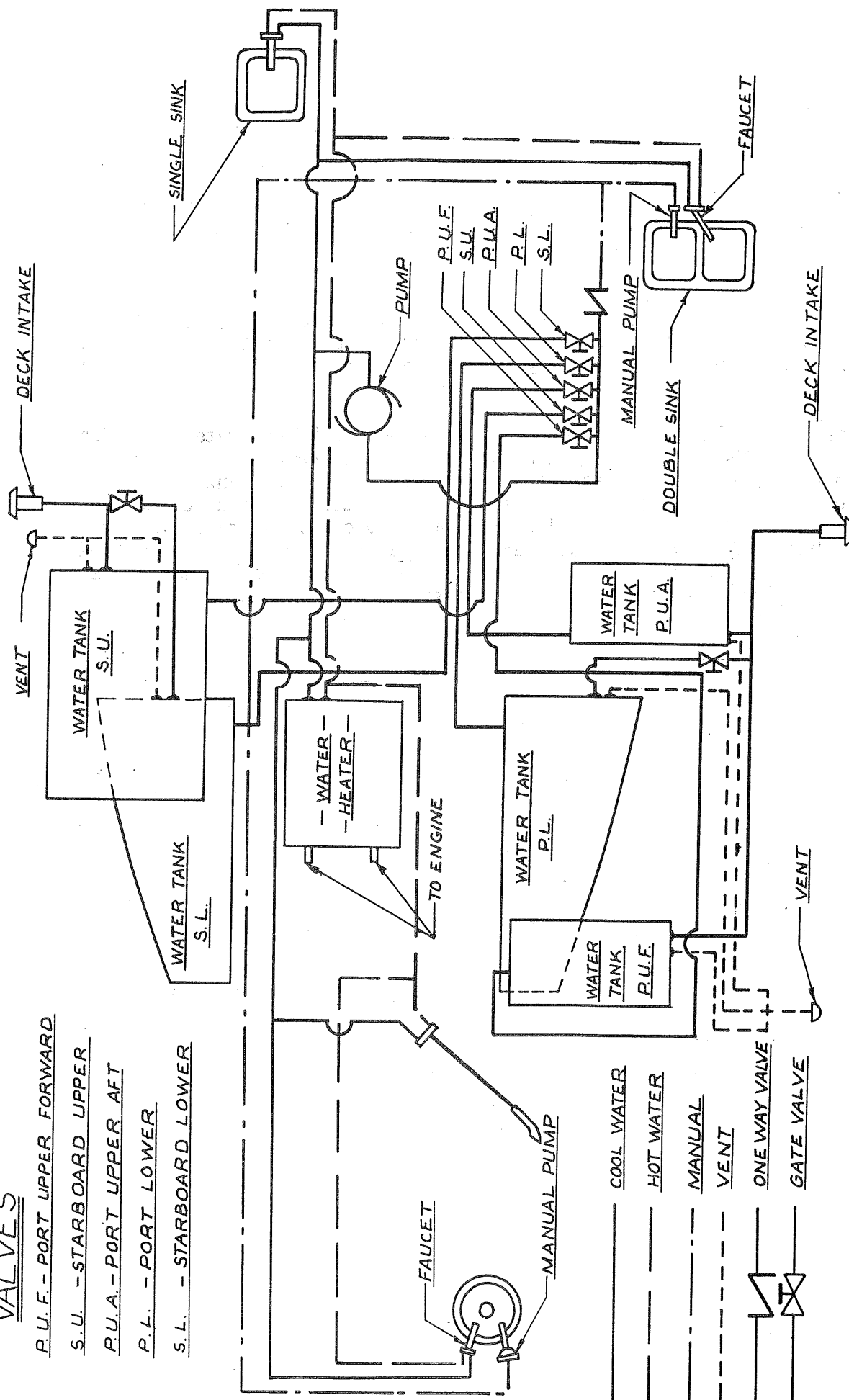
P.U.F. - PORT UPPER FORWARD

S.U. - STARBOARD UPPER

P.U.A. - PORT UPPER AFT

P.L. - PORT LOWER

S.L. - STARBOARD LOWER



COOL WATER

HOT WATER

MANUAL

VENT

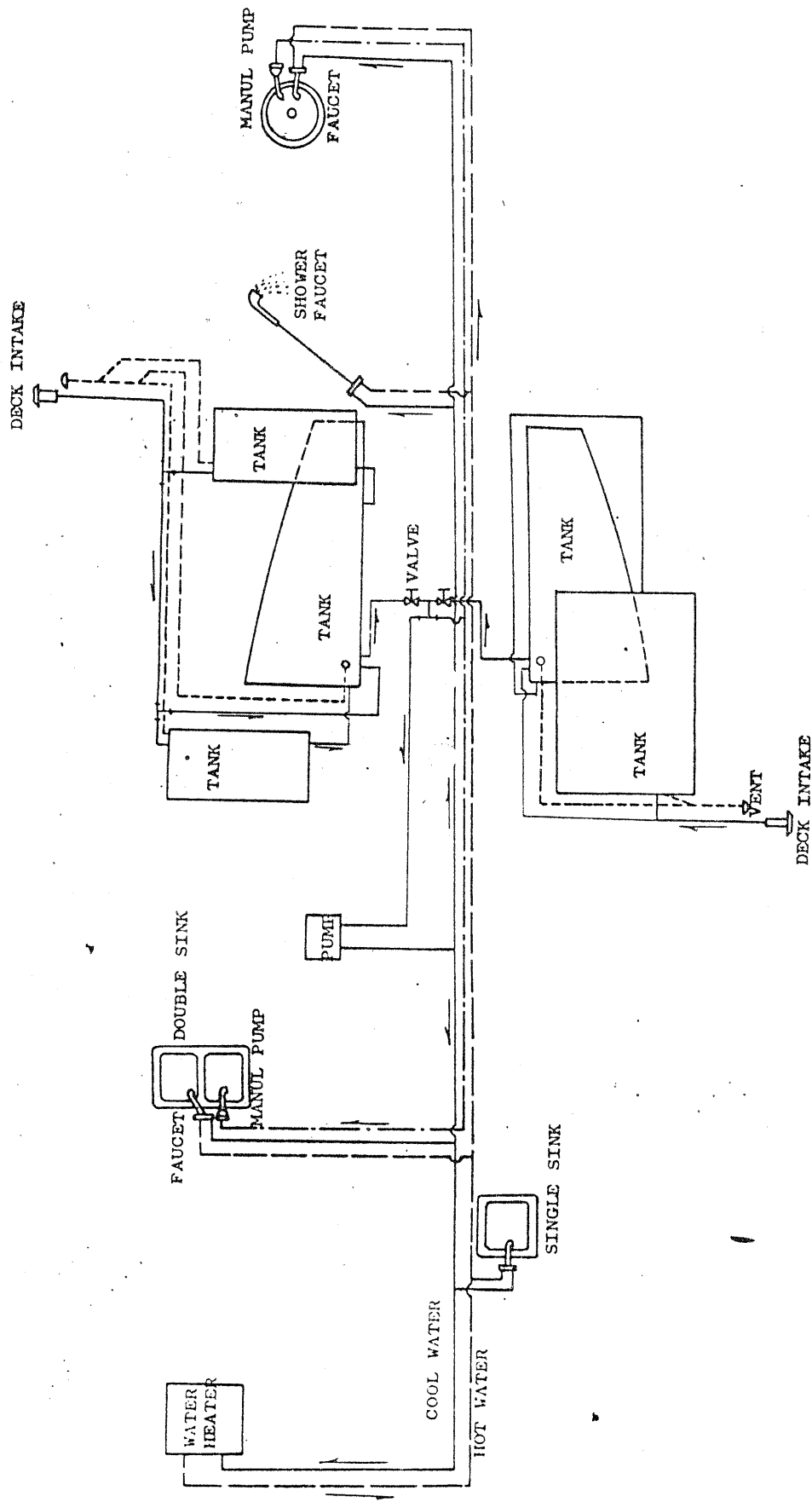
ONE WAY VALVE

GATE VALVE

— FRESH WATER SYSTEM —

— MASON 43 —

MASON-43' FRESH WATER SYS (DASHING-43)

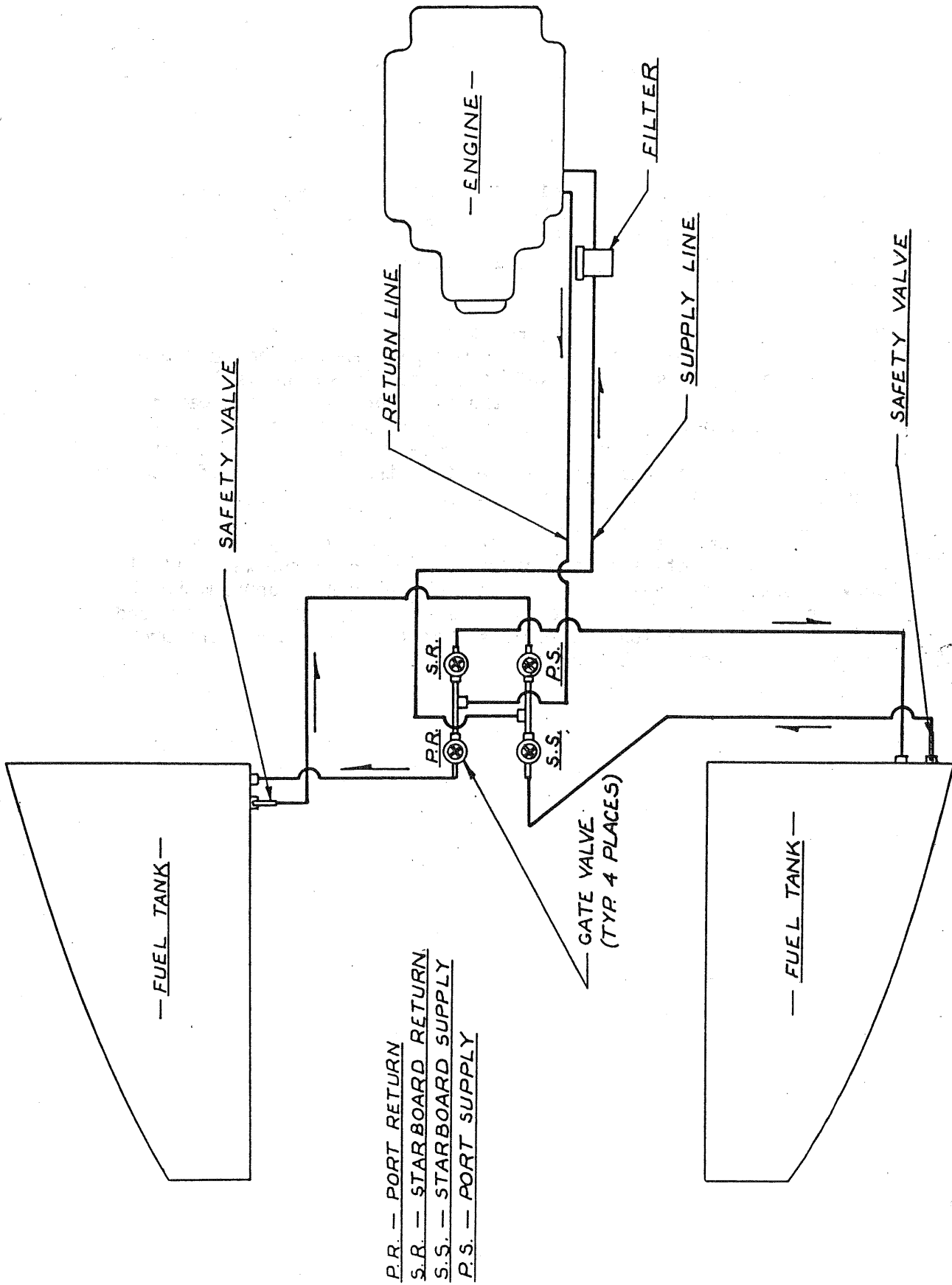


## 5. Fuel Tankage

Diesel fuel capacity in the MASON 43 is 130 gallons held within two black iron tanks. The tanks are located on the port and starboard sides under the berths in the aft cabin. A selection manifold is provided allowing fuel to be drawn or returned to either tank and seamless copper tubing is used to carry fuel from tanks through the selection manifold to the engine.

Each tank is provided with an electric fuel gauge located at the main electrical panel. Both tanks are undercoated and painted to prevent rust. A large inspection plate is easily removed on both tanks for cleaning and inspection. Each tank is also properly baffled.

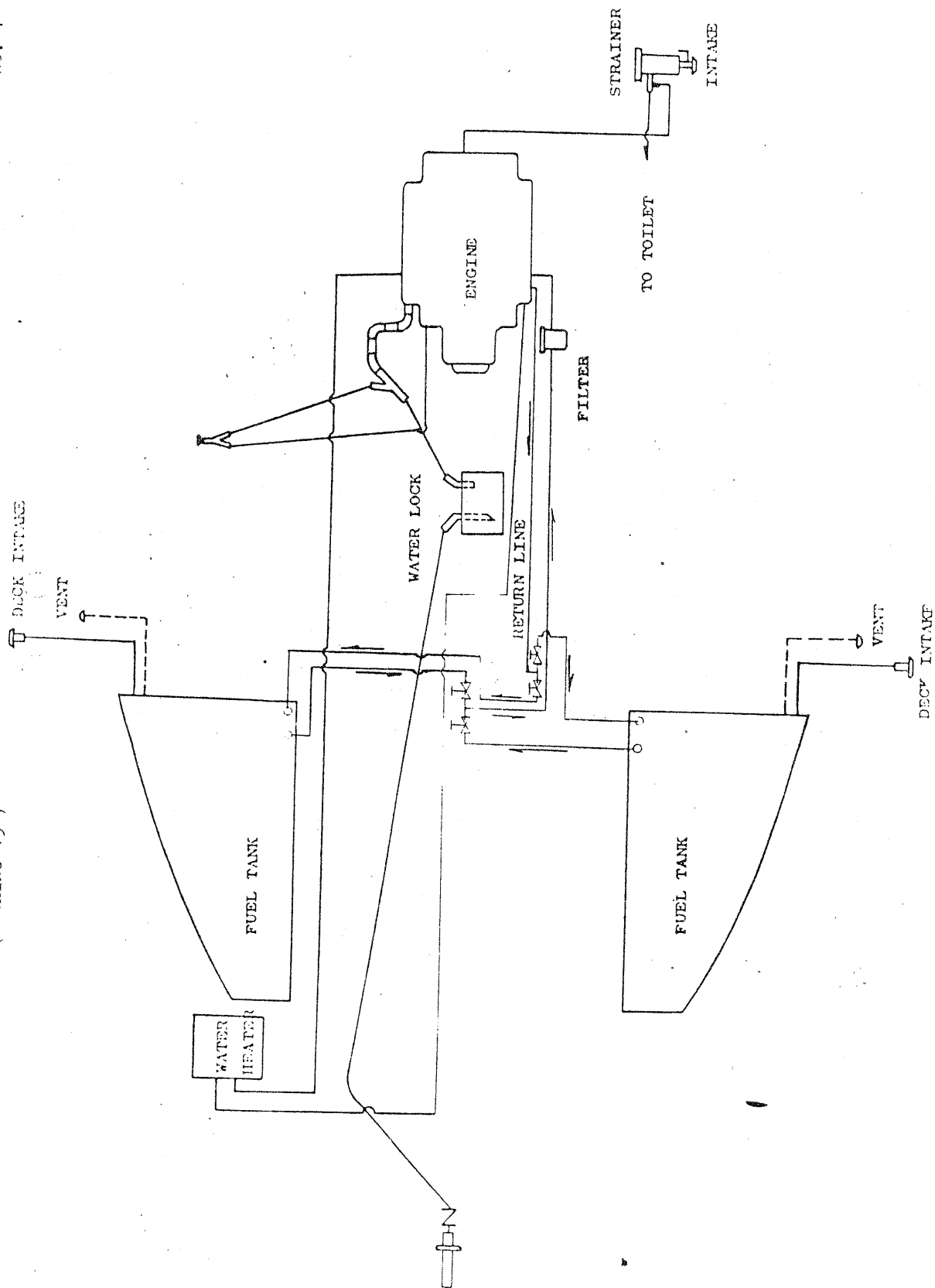
One interesting feature with regard to both fuel tanks and water tanks on a MASON 43 is that all tanks are relatively easy to remove through the main companionway. In a great many production boats, the tanks are installed prior to the installation of the yacht's deck and should the tank ever have to be removed it requires removal in pieces. To date over seventy MASON 43s have been built and there has never been a tank-related problem. We attribute this success to careful design, quality materials, and thorough pressure testing prior to installation.



— FUEL SUPPLY & RETURN SYSTEM —

MASON-43 ENGINE FUEL SYSTEM & EXHAUST SYSTEM  
(DASHING-43)

NO. 1



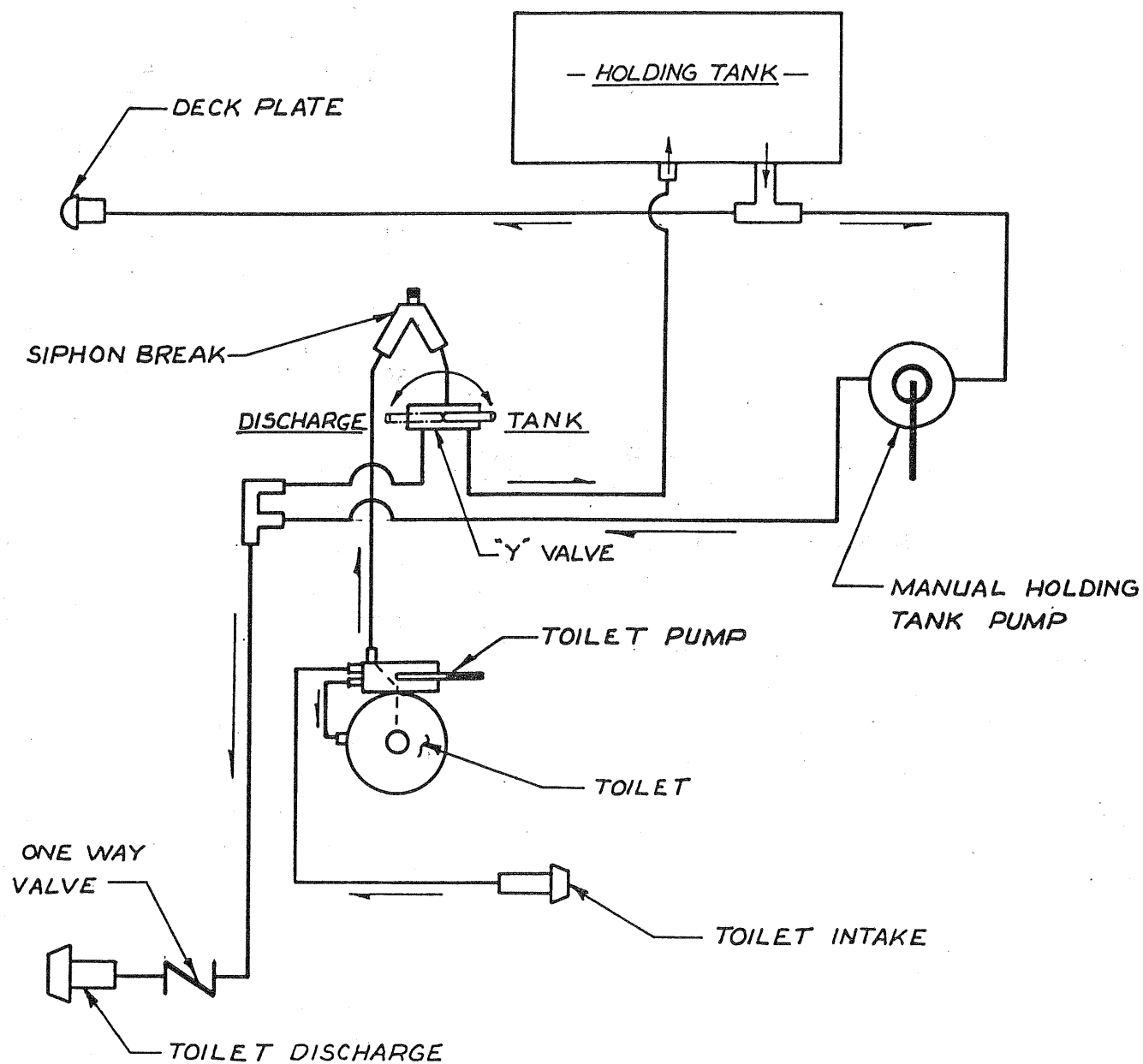
## 6. Marine Head, Holding Tank, and Shower Sump System

MASON 43s are fitted with a twenty gallon fiberglass holding tank. The standard toilet is a Wilcox Crittender "Winner" head. This porcelain and bronze head is one of the finest of the Wilcox line and with the available rebuild kits should last a lifetime. Many yachts produced today use lower quality porcelain and plastic units which have a very limited useful life and are more prone to trouble.

The standard marine head is provided with a Par "Y" valve which allows the operator to select the holding tank or divert the sewage overboard. The holding tank can be emptied with a 25 gallon-per-minute Henderson diaphragm hand pump. For dockside use a deck fitting is included for dockside sewage removal.

For shower water removal, a separate Par diaphragm electric pump is connected directly to the deep fiberglass shower pan beneath the removable teak grate of the shower stall. A waterproof toggle switch is located within the shower compartment and when the operator notices the water level rising above the grate, the sump pump is simply switched on and the gray shower water is quickly pumped overboard. We have found this system superior to a separate sump tank in that the likelihood of clogging is reduced and there is never a problem with sump tank odor.

Bilge pumping is accomplished by an electric Par heavy-duty automatic bilge pump. A sensor activates the bilge pump motor if the water level rises above a specific level. One additional Henderson diaphragm hand-operated pump is located in the cockpit within reach of the helmsman and is capable of up to 25 gallons-per-minute. Both bilge pickups are protected from debris clogs by bronze strainers.



— TOILET SYSTEM —  
 — MASON 43 —

— AFT —

SHIP

ANTI SIPHON VALVE

ONE WAY VALVE

DISCHARGE

STRAINER

BILGE  
PUMP

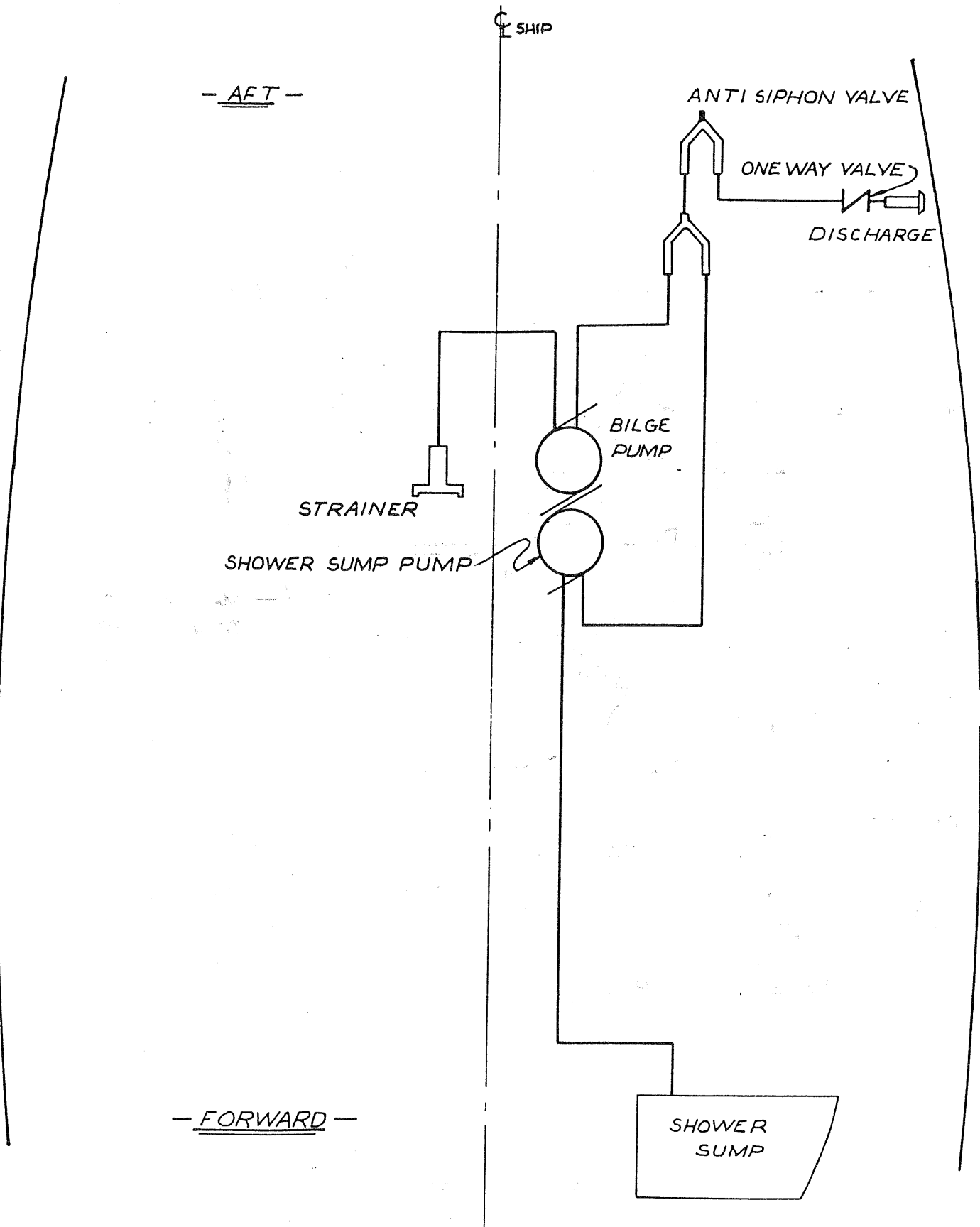
SHOWER SUMP PUMP

— FORWARD —

SHOWER  
SUMP

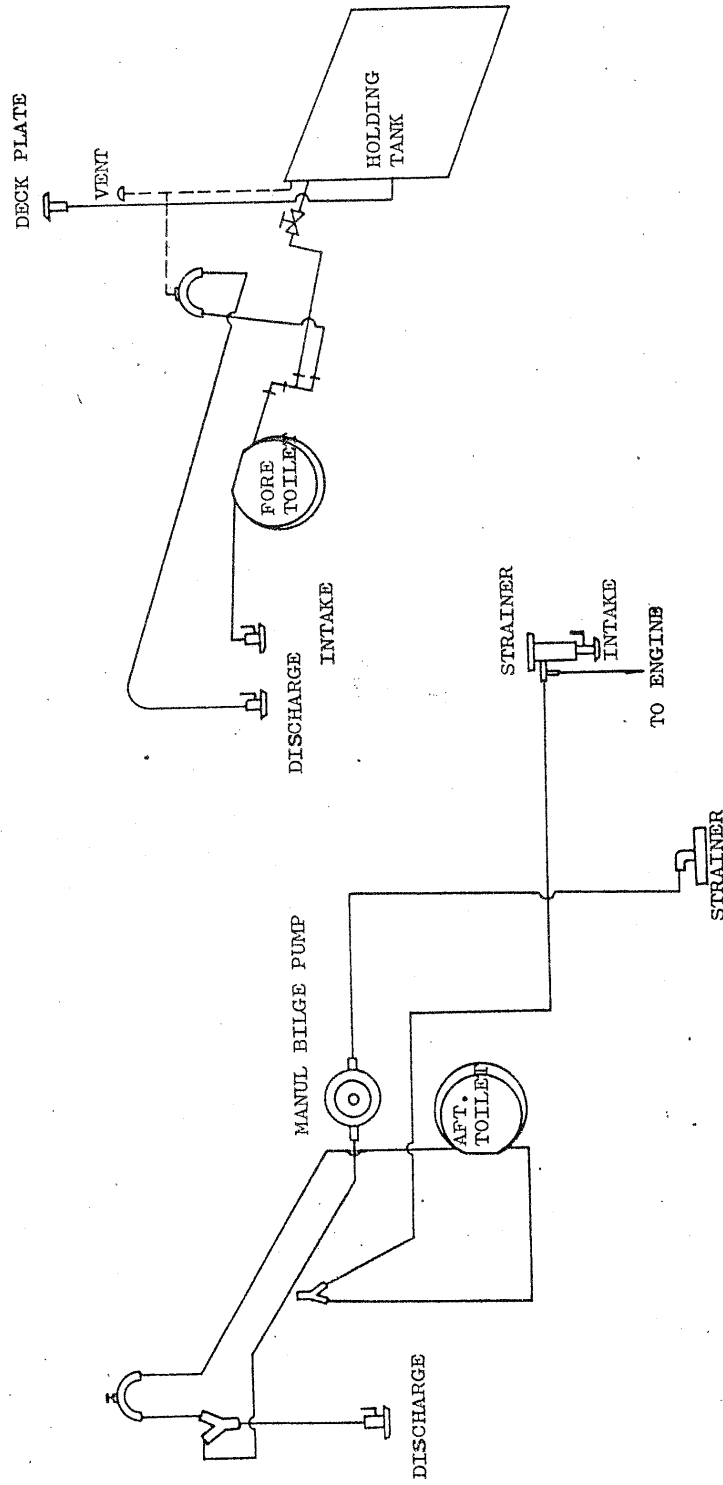
— AUTO. BILGE & SUMP PUMP SYSTEM —

— MASON 43 —



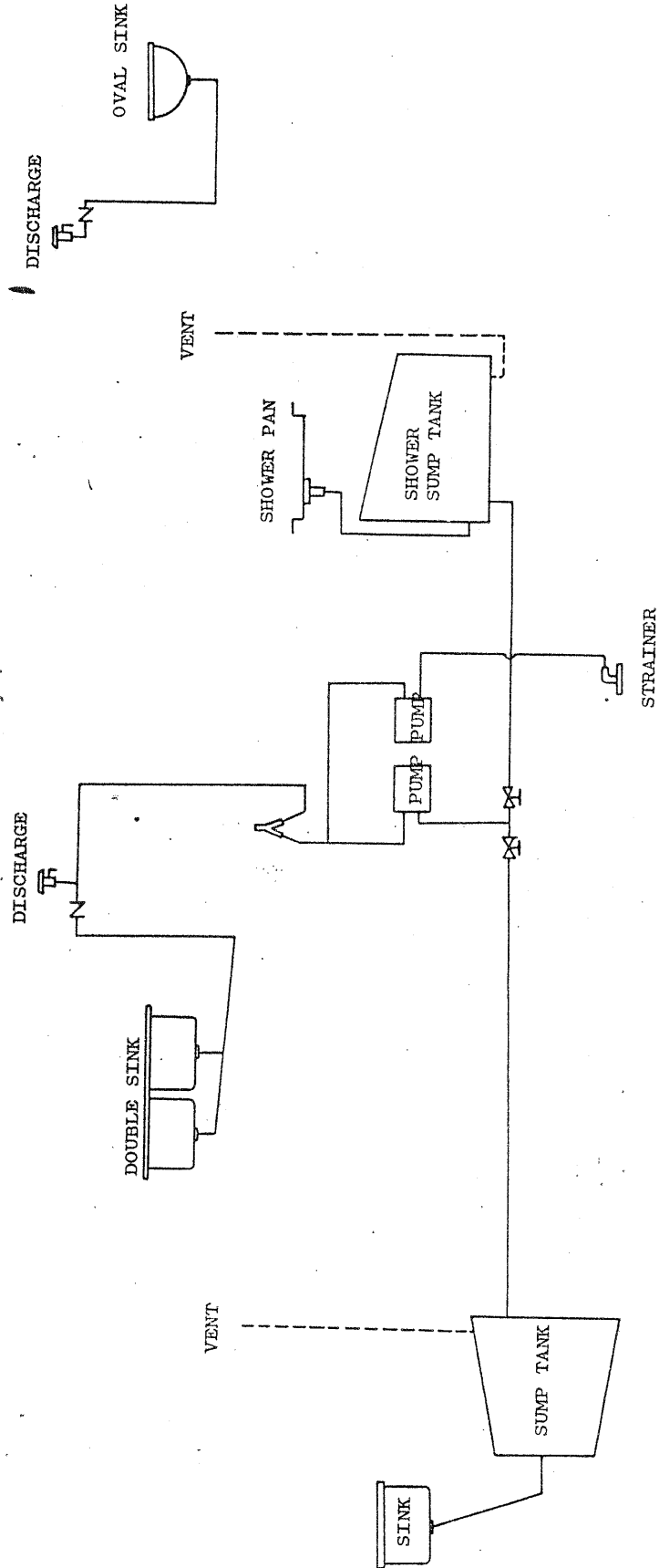


(DASHING-43') MASON-43' TOII ' SYST ' & MANUL BILGE PUMP SYSTEM



NO.

MASON-43' BILGE WATER SYSTEM  
(DASHING-43')

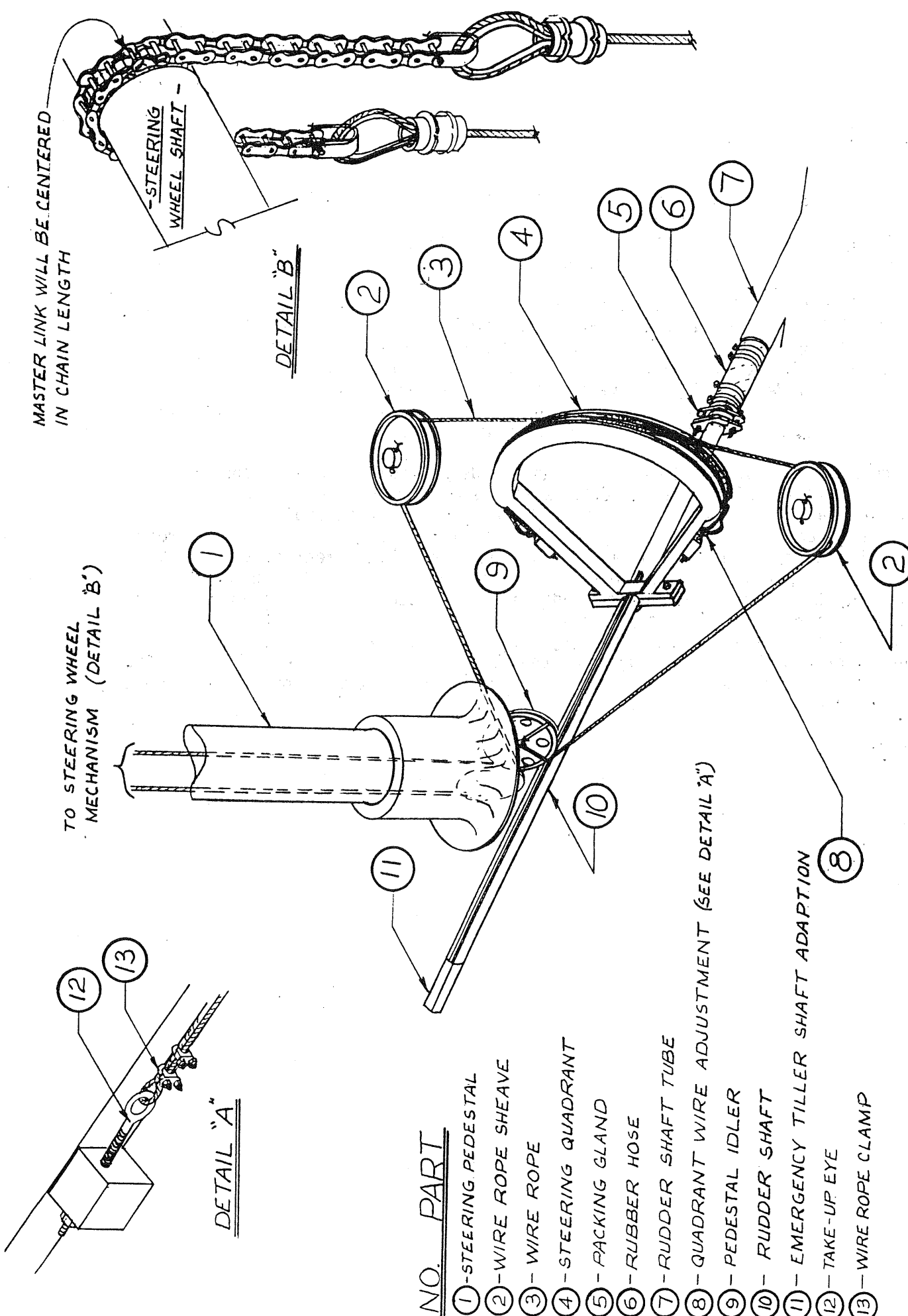


## 7. Rudder and Steering Gear

Standard MASON 43s are equipped with a stainless steel and bronze steering pedestal. Steering is accomplished with a gear sprocket on the wheel shaft and a chain which is spliced into a stainless steel cable and run over a series of sheaves and attached to a large, strong, steering quadrant. A steering brake is standard equipment.

Should trouble develop with the steering system, a stainless steel emergency tiller is stowed in the large hanging locker forward. The emergency tiller is designed to be used without removal of the pedestal or the wheel. The tiller simply slides over the machined head of the rudder shaft and by design rises above the pedestal and wheel. We feel this is an excellent system and it has proven itself on numerous occasions at open sea where steering problems have been encountered.

Rudder construction is to extremely heavy design scantlings and consists of a 1-3/4" stainless steel rudder shaft, squared and keyed to accommodate the quadrant and emergency tiller. A 3/8" stainless steel plate backbone and is welded to the shaft from top to bottom which insures that all torque by helm input or sea condition is distributed over four feet of double-sided weld. The void within the interior of the rudder is filled with a polyurethane foam and the outer skin of the rudder is heavy fiberglass. One interesting feature with this rudder construction is that if in a bad grounding accident the fiberglass was so heavily damaged that it was torn from the reinforcing, the yacht could be steered through the water with the stainless steel backbone of the rudder itself demonstrating the mass of surface area of the stainless steel internal structure.

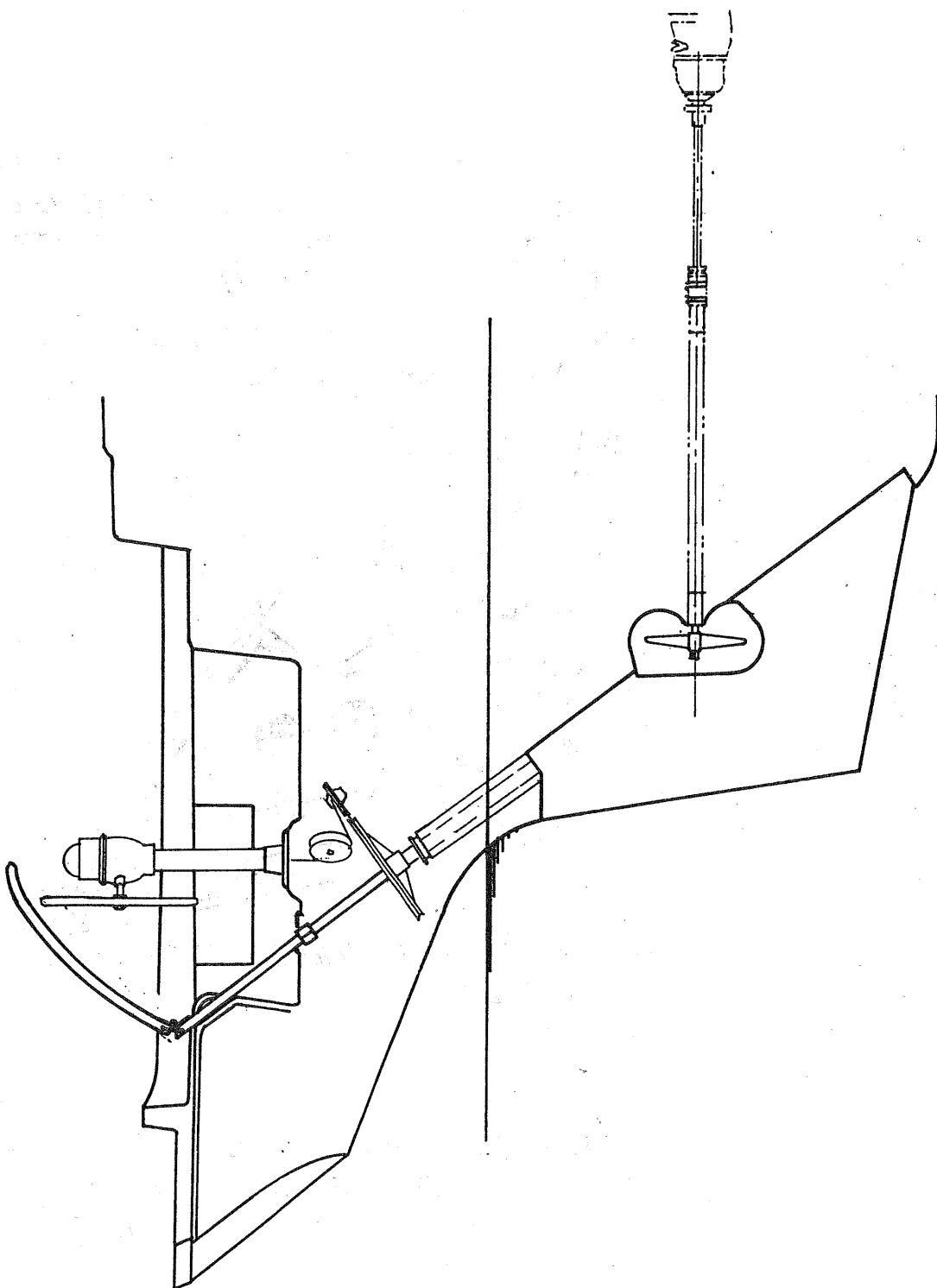


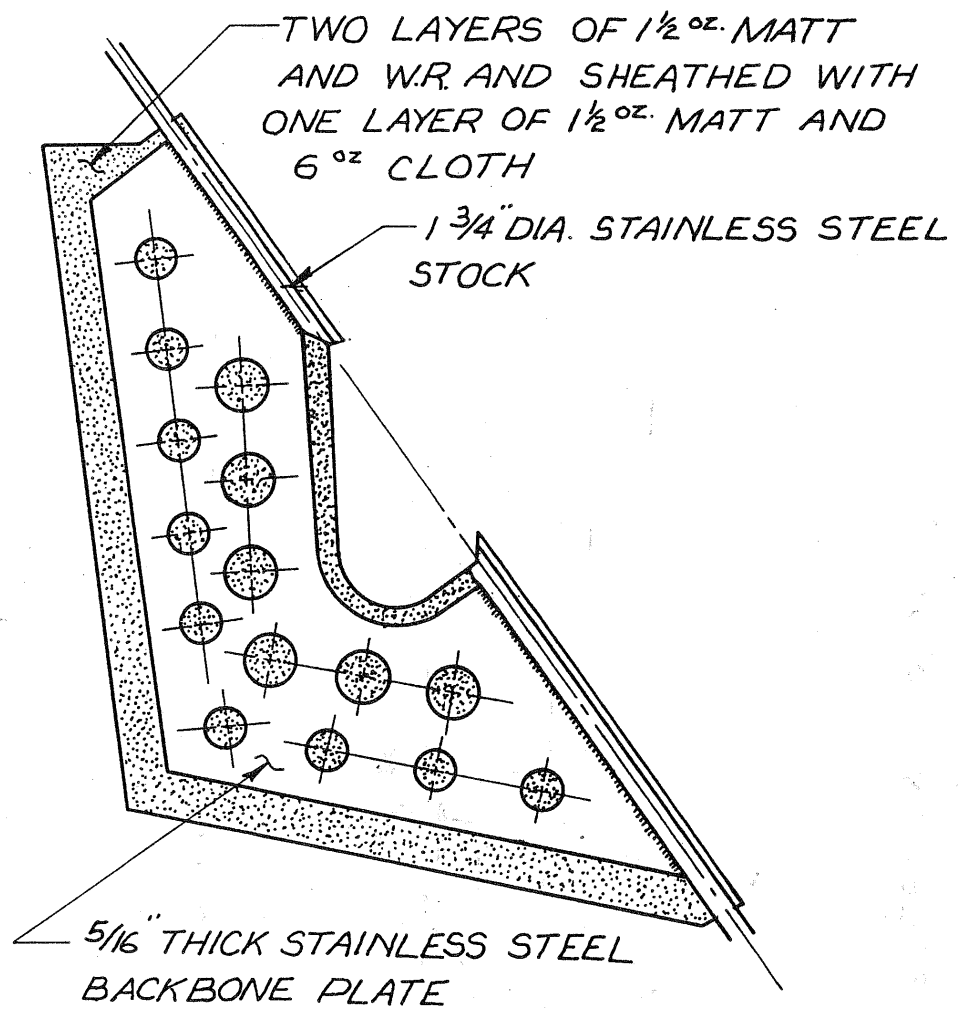
NO. PART

- 1 - STEERING PEDESTAL
- 2 - WIRE ROPE SHEAVE
- 3 - WIRE ROPE
- 4 - STEERING QUADRANT
- 5 - PACKING GLAND
- 6 - RUBBER HOSE
- 7 - RUDDER SHAFT TUBE
- 8 - QUADRANT WIRE ADJUSTMENT (SEE DETAIL 'A')
- 9 - PEDESTAL IDLER
- 10 - RUDDER SHAFT
- 11 - EMERGENCY TILLER SHAFT ADAPTION
- 12 - TAKE-UP EYE
- 13 - WIRE ROPE CLAMP

— STEERING DETAIL MASON YACHTS —

# EMERGENCY TILLER STEERING SYSTEM





MASON 43 RUDDER CONSTRUCTION  
NOTE ABUNDANCE OF STAINLESS STEEL  
REINFORCEMENT WITHIN THE RUDDER  
STRUCTURE.

## 8. Deck Hardware

Only the highest quality electropolished stainless steel is used for deck hardware onboard the MASON 43. All stanchion bases, chocks, hinges, and bow roller are fabricated from forged stock. Virtually no cast fittings are used insuring void-free rugged gear.

It should be noted that there are no deck hardware options listed on the MASON 43 price list because no additional hardware is required. Stainless steel mast pulpits, steering pedestal pulpit, dorade vent protectors, cowl vents, deck prisms, spring-line chocks and cleats, a beautiful double bow roller (designed to accommodate a 45 lb. CQR anchor), and one additional anchor or mooring line are all standard on the MASON 43. Every cleat and stanchion base is thru-bolted and includes a heavy stainless steel backup plate.

Stainless steel genoa tracks are provided and the method of their attachment is worthy of mention. The stainless steel flat bar which aids in the deck-to-hull joint lies beneath the teak toe rail on which the sail track is mounted. The stainless steel flathead machine screws run through the sail track, pass through the teak toe rail and are tapped into the stainless steel flat bar. This unique method of attachment insures an extremely high level of strength for security during rugged conditions.

Standard winches are "Lewmar" which are of more than adequate size for the boat. Number 48 self-tailing chrome-plated primaries are used for genoa sheeting. Staysail and main sheeting along with main and jib halyards are handled by number 30 chrome "Lewmars" and a number 24 is used for the staysail halyard. As with most MASON 43 deck hardware, the winches are thru-bolted and a heavy stainless backup plate is provided.

The design, fabrication, and installation of the chainplates on a MASON 43 is an example of the many details on which a MASON buyer gets his money's worth. On the standard cutter-rigged boat, the double spreader rig utilizes an individual chainplate for both the upper and intermediate stays. The upper and intermediate chainplates, as with all the chainplates, are of forged stainless steel measuring 1/2" x 2" and running below the deck level over 36". Both chainplates are attached to a primary structural bulkhead which is reinforced with two 3/4" mahogany doublers. The total thickness of this chainplate attachment is just under three inches, including all of the fiberglass reinforcing. The two chainplates are anchored to either side of the bulkhead with eight 7/16" stainless steel bolts. The fore and aft lower chainplates which are 1/4" x 1-3/4" are similarly anchored to 3/4" mahogany webs laminated with three alternating layers of 1-1/2 oz. matt and woven roving plus the mare's tails as discussed in the structural bulkhead attachment.

9. Spars, Standing and Running Rigging, Including Sails

"Kenyon" aluminum spars painted with a linear polyurethane paint are used on all MASON 43s. Standard features include a storm trysail track, spreader lights, foredeck lights, and dual internal "Jiffey" reefing system with a centerline mast-mounted reefing winch.

"Navtec" turnbuckles and "Sailbryte" stainless steel rigging are used and all swagging is done by a large rotary swagging machine by a noted U.S. aircraft and marine rigging company.

"Schaefer" Series 08 blocks compliment the prestretched dacron running rigging.

On the cutter rig and the double headsail ketch rig, running intermediate backstays are included to provide maximum support for the spar during heavier air conditions. These running backstays are invaluable when needed.

"Sobstad" sails are standard equipment and insure that every MASON 43 will provide optimum performance when properly handled.

Please note the enclosed letter from the people of Sobstad defining their philosophy and commitment to manufacture sails which will do justice to the MASON 43.



## 10. Accommodations

The cabin plan incorporated into the MASON 43 has been designed with a dedication to function and comfort offshore as well as dockside living. Interior joiner work is of handrubbed, satin-finished teak, including a teak and spruce cabin sole. Urethane varnish is used throughout and provides a beautiful, long-lasting finish which can be cleaned with soap and water. To offset the darkening effect of the teak, white formica is used for the yacht's cabin sides and overhead. The interior is light and airy.

One of the most important aspects of any cruising boat which is to be used in warm climates is ventilation. Fourteen large opening ports of chrome-plated silicon bronze are standard. Each cabin, including the head, has opening marine windows. Under rough conditions when the ports cannot be opened, air circulation is insured by five teak and acrylic dorade vent boxes. These dorade vents provide adequate air circulation to all parts of the boat, even under the most adverse weather conditions. Another feature of these vent boxes is that an additional plate is provided on each box. In fair weather, when water trapping is not necessary, the cowl vent can be positioned directly over the air inlet allowing a greater flow of fresh air. Additional deck plates are installed over the chain locker forward and the aftermost deck for ventilation to both of these areas.

The main companionway has, in addition to heavy drop-in boards, a louvered, hinged door which at dockside or in moderate conditions allows even more air flow throughout the boat.

No matter how much natural ventilation the boat has, without movement of air conditions can be quite uncomfortable. An example of this condition might be motor sailing in very light air in the same direction and at the same velocity as the prevailing wind, or anchored in a windless anchorage. To eliminate this problem, all MASON 43s are equipped with five twelve-volt oscillating cabin fans.

Upon close inspection of the cabin plan it should be noted that a tremendous amount of usable storage exists throughout the MASON 43. Access doors are provided to every nook and cranny. Under bunks, seats, floorboards, companionway stairs, etc., lockers are large and deep and all finished with an insulating material and painted with an enamel paint. There is also substantial storage beneath the cabin sole because of the full deep underbody of the boat.

The standard MASON 43 layout has proven itself over the five years of production and hundreds of thousands of cruising miles. We're quite proud of the fact that the interior of current boats is relatively unchanged as far as the basic layout. Al Mason's fifty years of design experience enabled him to do it right from the beginning.

In reviewing the cabin plan, some questions may come to mind. Common questions are:

1. Why, with a double berth in the aft cabin on the port side, have you included a single berth on the starboard?

We have maintained the starboard single to insure that even under the roughest conditions two people can occupy the aft cabin. It's generally accepted that in offshore conditions, even with a centerboard down the middle of the berth, the outboard person has a very difficult time getting in and out of the berth, particularly if the boat is on a hard starboard tack. There also may be a time when two men want to occupy this cabin and individual berths clearly have an advantage. Many owners will utilize the starboard single for storage while living aboard or for overnight trips. A curtain or sliding teak doors (which are easily removed) provided by the factory can be used to enclose this area.

2. Why only one head on a boat of this size?

On some of our original designs done by Al Mason, we had a second head drawn into the boat. It was located on the port side within the aft cabin, but to get head room, it required that the cabin top be carried at one level rather than the step down as is now done. It was concluded that esthetically the boat would be compromised to accommodate this head which we really did not feel was necessary. In lieu of two heads, one spacious head and a folding pullman-type sink in the aft cabin is used. Based on experience, it was concluded that with two couples aboard a 43' boat, there might be a lineup in front of the head to wash up, brush teeth, etc., and the folding sink would help eliminate that problem. In the words of another noted naval architect, "If you can't walk the twenty feet from the aft cabin to the foward head, you shouldn't be on the boat."

## 11. Design Philosophy

Through dozens of boat shows and five years of presenting the MASON 43 to thousands of "would-be" boat buyers, we have been faced with almost every conceivable question. We have come to the conclusion that the average boat buyer knows least about hull shape than any other aspect of yacht design.

We thought it might be beneficial to express our reasoning and that of Al Mason with regard to the design concept incorporated into our three production yachts.

First off, we certainly had no preconceived ideas about underbodies and gave very careful consideration before making the decision to proceed with the modified full keel design. Al Mason, during his long career, has designed dozens of successful ocean racers. Among them are famous race winners such as FINISTERRA, SITZMARK, THE NIVENS YAWLS, and numerous twelve meter cup defenders. During the twenty years he spent with Sparkman and Stephens, Al was Chief of Design for most of Olin Stephens' racing projects between 1942 and 1962.

Al Mason has no shortage of experience with offshore racing yachts and superb performance was absolutely mandatory on our new 43' design. We determined that a modified full keel (and its many benefits) could be retained and we could achieve a very high level of performance.

A prospective buyer's most common mistake is to draw conclusions and speculate on a yacht's performance solely based on the side profile of a publication drawing. Only after thoroughly reviewing the hull lines, sail plans, displacement, and ballast figures can any conclusions be drawn (and even then, generally only by a naval architect of considerable experience).

In Al Mason's opinion, the fin keel does have advantages over the modified full keel for the racing yacht, but only if the displacement is drastically reduced. Many of the so-called "cruising yachts" that have adopted the new "International Ocean Racing Rule" influenced underbody, have given up a great deal of strength, rudder and propeller protection, and seakindliness with no overall increase in performance due to the moderate displacement which is dictated by the load demands of the passage-making yachtsman.

One of the most critical facets of yacht racing under the current IOR rule is weight which is evidenced by the ultra-light displacement yacht. In a cruising application, large fluid capacities, powerful engines and generators, luxurious accommodations, tools, spare parts, supplies, and robust scantlings for security all translate into weight. We feel certain that the design we have chosen can carry this mandatory weight as fast as the "IOR" influenced designs and through a wider range of conditions affording a much higher level of comfort and security to those aboard.

A great cruising yacht has to be well-rounded and provide speed, comfort, and safety in any condition. It has to run in trade wind conditions with a minimum of helm input reducing wear on the helmsman, autopilot, and steering gear. The boat must drive to weather with authority, yet a minimum of pounding. The cruising man should give equal consideration to the vulnerability of his yacht to floating debris, collisions with the bottom, and the ease of hauling when modern facilities are not available.

The design we have chosen is less susceptible to damage from floating objects; the rudder is strong and well protected from bottom contact. The propeller is not likely to be fowled by lines and kelp. The longer keel base makes haul-outs much easier, and should the boat go aground (which is inevitable) it should be much easier to unstick her.

Adding to the abovementioned benefits, the relatively comfortable, hard-driving and penetrating weather performance along with good down wind manners and fabulous reaching capability, it's easy to see why we carried the same philosophy forward to the MASON 33, 53, and 63.