# SPECIFICATIONS

Wright/Allied	SEAWIND II
Hu11 #	#57
Hull Serial #	ABCSW0570177-MKII
Length Overall	31'7"
Length Waterline	25'6"
Beam_	10'5"
Draft	4'6"
Actual Lead Ballast	5396
Displacement	14,900
Engine Model #	W-30
Engine Serial #	786A/D674B701
Transmission Type	Hurth Manual
Shaft Size & Type	1¼ Bronze
Prop Size & Type	16x10 R.H. 3B Dyna-Jet
Maximum R.P.M.	2500 Maximum Continuous Rating
Reduction	2:1
Fuel Tank Location	Under Cockpit
Fuel Shut Off Location_	Underneath Steerer in Aft Locker
Fuel Capacity	40 Gallons .
Water Tank Location	Underneath Cabin Sole
Water Capacity	60 Gallons
Alcohol Tank Location_	Under Aft End of Port Settee
Alcohol Capacity	2 Gallons
110V Converter Location	Port Saillocker
Sail Area - Main	203 sq. ft.
Mizzen_	84 sq. ft.
Jib (100%)	- 205 sq.ft. (150%) - 378 sq.ft.
	Waterline 43 ft.

NOTE: - POSITION AFT LIFTING STRAP BETWEEN BACKSTAY & AFTER SHROUD OF MIZZEN R.A. CLAR 2 POSITION FORWARD LIFTING STRAP WITH FORWARD EDGE OF STRAP AT LOWER AFTER 3 TIE STRAPS TOGETHER WITH A LINE (HORZ: LINE) HOLDS FORWARD STRAP FROM MOVING FORWARD 12.5 ± (MORE OR LESS) (4) NOT NECESSARY TO REMOVE ANY STANDING RIGGING. JUST REMOVE MIZ BOOM TOPING LIFT AND LET MIZZEN BL REST ON STERN PULPIT. CUSTOM CHANGES IN

# WRIGHT YACHT COMPANY, INC.

# BOAT MANUAL

This manual is designed to augment the data furnished by equipment supplied to provide you with general information that will be helpful in the maintenance of your yacht.

Those who require knowledge about sailing, seamanship, racing and so forth are advised to seek literature published to meet the needs and interest of the full range of the yachting public.

This manual should be particularly helpful during the shake down period. Upon delivery, launching and periodically thereafter, inspection and minor adjustments ie. trimming the rigging, engine fluid level checks, battery condition, hose connection tightening; stuffing box maintenance - etc. may be required. This is also the ideal time to get to know your boat and to record data for your future ready reference. We suggest that you make note of data that may be helpful to refresh your memory later on. Good prevents maintenace and verification provide a feeling of security when weather and

Your dealer or representative who stepped the mast(s) has no doubt verified that the rigging is set in workmanlike trim. Check it over and ask him to "fill you in" on any details that raise questions in your mind.

unusual conditions challange you and your yacht.

FILE ALL MANUALS, SERVICE BULLETINS, INSTRUCTION SHEETS FOR YOUR FUTURE

CONVENIENT USE

IKTOUI	IACTI	COMPANI,	TMC.
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Model	Hull#	

#### LIMITED WARRANTY

WHAT IS COVERED

The Manufacturer warrants the integrity and seaworthyness of the hull and deck under normal use and circumstances and normal care and maintenance for a period of three years from the date of delivery to the original customer and will repair or replace any defects traceable to faulty workmanship or materials.

#### WHAT IS NOT COVERED

The Manufacturer does not warrant purchased accessories which are bought from outside suppliers and installed on the boat. Many such items are warranted by their original manufacturer and where possible will be passed on to the customer.

The external finishes (gelcoat, paint, teak oil, etc.) applied during the construction of the boat are believed to be the finest and most durable available. However, they are not, and cannot be, warranted by the Manufacturer due to the widely varying effects on them experienced in different climates.

This Warranty shall not apply to any boat which shall have been repaired or altered by persons unauthorized by Wright Yacht and shall cease forever to be effective at such time as a boat is hired out on a bare-boat charter.

This Warranty is expressly in lieu of any other warranty express or implied, and of all other obligations or liability on the part of the Manufacturer.

- (a) WRIGHT YACHT DOES NOT, UNDER ANY CIRCUMSTANCES, ASSUME RESPON-STBILITY FOR THE LOSS OF TIME, INCONVENIENCE OR OTHER CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, EXPENSES FOR TRANSPORTATION AND TRAVEL, TELEPHONE, LODGING, LOSS OR DAMAGE TO PERSONAL PROPERTY OR LOSS OF REVENUE.
- (b) Leaks at stanchions and chain plates resulting from day to day operation of the boat are normal and considered part of consumer maintenance.
- (c) Wright Yacht reserves the right to make changes in the design and material of its boats and component parts without incurring any obligations to incorporate such changes in units already completed or in the hands of Dealers or consumers.

WRIGHT YACHT COMPANY, INC.

(Date)	(Signature	of	Owner)	)
	7 70			

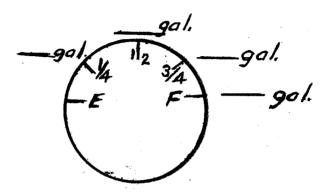
 $\frac{\text{NOTE:}}{\text{with}}$  Please sign and return one copy to register your Warranty with the company.

Please sign when applicable

I hereby acknowledge that a copy of the Wright Yacht Company,
Inc. Warranty was made available to me prior to my signing a sales
contract and that I read and understood its content.

# FUEL SUPPLY

Your fuel tank has a labeled deck fill and is vented overboard. The fuel guage (float type with electronic sensor), included as part of the instrument panel will indicate your fuel condition. Satisfy yourself by verifying the gallonage. A helpful record can be developed when you are at a filling pump by recording the gallons delivered in the several increments.



As full condition is reached - a careful operator will be warned by a noticeable sound change. DO NOT OVERFILL

USE GOOD QUALITY DIESEL FUEL - It is good practice to develop youn experience record of fuel usage so that you can appropriate plan refueling requirements.

See page 2 for safety shut off location - keep it clear for qui access.

The fuel tank is constructed of 14 guage Corten steel to give excellent service and long life. The 2 pipe system is initiall by copper tubing connecting at the engine end to 15" runs of fire resistant flexible fuel line both to and from the fuel lift pump.

Fuel filter - Westerbeke glass bowl type (or optional Fram Filt Separator), is installed in the fuel feed line to eliminate moisture and sediment before it reaches the engine.

At least monthly (or when observation indicates), open the drain cock in the base and drain into a waste recepticle.

See Fram circular for description of how it works.

## ENGINE ROOM VENTILATION

Cowl bilge ventilators <u>aft</u> should be installed. Pry out and stover plates. Snap in the P.V.C. ventilators with one unit air forward and one aft to create a natural venting action.

Flexible venting hose running deep into the bilge assures compountilation.

#### RUDDER

The fiberglass rudder was constructed in two half shells. A 1-1 (curved shaft in Seawind),(straight shaft with 4 tines in Prince and Mistress), was located in the cavity between the two halves. Upon assembly the rudder core was then filled with resin to make solid unit. Note, with time the parting line crack may appear be this does not indicate internal failure. Timely minor gel coat repair is recommended.

The rudder is supported by a heavy bronze shoe thru bolted to the keel.

A cutlass bearing and sleeve extend thru the hull. Inside a heaveight 5 ply 2-1/2" I.D. X 5" rubber hose and 1-1/2" stuffing bear are clamped in place. If cutlass bearing replacement is required to the stainless set screws and loosen them before attempting to put the bearing retainer. The upper end of the shaft is machined to fit the tiller head or Quadrant. On the Seawind, Mistress and an emergency tiller can be installed thru a safety port and

In some models an extension stub shaft is utilized. It will be necessary to loosen the set screws in the stub shaft collar to drop the shaft thru the stuffing box and cutlass bearing.

directly on the rudder post if steerer problems are experienced

A clearance of at least 2 feet is required to clear the rudder post.

A flexible engine to prop shaft coupling is keyed and fastened with set screws to the forward end of the (1-1/4) prop shaft.

A 1-1/4" stuffing box is connected by a heavy weight 5 ply 2'1/I.D. X 5" rubber hose to the inner end of the shaft log housing the cutlass bearing sleeve. Stainless clamps bind this assembly

in place.

The original stuffing box adjustment was "hand tight plus 1/4" turn". It should drip every 10 to 15 seconds to provide sea water cooling and a minimum friction seal. This avoids scoring and grooving of the shaft.

The cutlass bearing sleeve is a snug fit into the shaft log. If bearing replacement is required uncover and loosen 4 stainle steel set screws located 1/2" from the aft end before attemptin to pull the bearing retainer.

The propeller (specs. on page 2) is keyed and locked in place with locking nuts, cotter pinned.

Engine > Flexible

Cotless

box

Box

Bearing

Shaft

Shaft

Sorens

APPROX. SLOPE

Stuffing

Cotless

Bearing

Flexible

Screws

Flexible

Refer to the Engine Manual. Your engine has been installed as recommended in that manual and aligned with great care. The engine operating control panel in the cockpit includes the guage's supplied by your engine manufacturer and a fuel guage.

engine is still hot from previous running (within an hour), it is necessary to push the moisture proofed pre-heat button for 30 to 4 seconds before attempting to start. Run starter for only 10 or 15 seconds. If engine does not start, repeat the preheat procedure. At temperatures below  $40^{\circ}$  the engine will start faster if the through at full. BE SURE THE SHIFT IS IN NEUTRAL.

To start the engine, the main battery switch must be on. Unless t

Pull up on the shut off handle to stop the engine. This cuts off fuel supply. The transmission has shifting stops (forward and reverse) and a self locking (dedent) position for neutral. Before starting be sure it is in neutral. The throttle has a dedent at idle speed. Before casting off check the control unit assembly attaching bolts and hardward for looseness that may have resulted from vibration, particularly after the first hours of operation. Both control handles are removable. (Pull out). Use care and judgement in shifting to avoid excessive strain. Some propeller shafts may have a prop lock. DISENGAGE THE LOCK BEFORE STARTING ENGINE.

# ENGINE COOLING

See Engine Manual (Section R). Sea water is drawn in through a scoop strainer located well below the waterline. Then through a sea water Flo-view filter installed to ensure weed and sludge elimination. The filter is located beside the engine immediately above the intake thru hull and seacock. Inspect it periodically clean when necessary. Disassemble by removing the four thumb scr Rubber gaskets seal the top and bottom of the glass. Be careful reseat the unit properly when reinstalling. From the filter the water is pumped through the oil cooler, heat exchanger and exhaus manifold and is then discharged overboard.

The "fresh" water system is filled with a 50-50 solution of perma anti freeze and pure water with a capacity of 2 + gallons. Check fresh water expansion tank water level (maintain at one inch from top of the tank.) Notice. In an overheated condition pressure s be released gradually as the filler cap is removed. Turn counter clockwise to initial stop. When pressure dissipates push down on safety cap and turn counter clockwise again to remove.

Check your engine temperature guage and your exhaust periodically to verify continuing adequate sea water flow.

Westerbeke Service Bulletin #7 suggests that if you experience a loss of R.P.M., loss of power and/or black smoking, it may be due to clogging of the air filter located on top of or near the mainfold. Remove the filter (two thumb screws) for a short period of time to see if the condition clears. Clean and replate the filter. Do not run for extended periods without a filter.

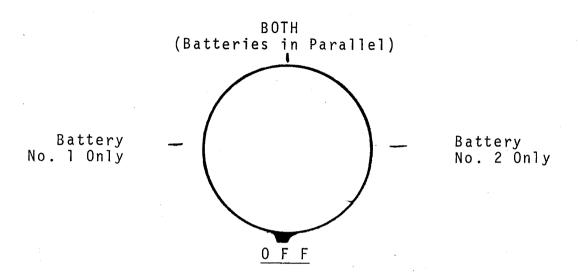
#### LUBRICATION

Crank case oil supplied is S.A.E. 10W-40 H.D. Manual gear box of supplied - S.A.E. 20 Non detergent. (Exception - 3 to 1 Reduction is supplied with transmission oil.) Levels should be checked initially and at monthly intervals. When "checking" the gear boil level, do not screw in the threaded end of the dip stick. nickel colored seal ring is installed between the hex head and the stick opening. Replace it as you rethread the dip stick. Change the gear box oil after 100 hours of running and every season.

Included in the loose leaf literature is a handy listing of stocking dealers and distributors.

## ELECTRICAL

The Master Control panel is conveniently located in the aft bulkh of the main cabin. The "large handled" turn switch shows -



Battery charging is dependent upon your selection by means of this switch (i.e. to the left Battery 1 only, to the right Battery 2 of or up both batteries in parallel), when the engine is running. To (Opt.) converter charges independent of this switch.

Battery usage is similarly indexed. You may elect to save the ch in one battery for start up power while using the other for light pumps, etc.

Mounted on the master control panel are the circuit breakers that connect the labeled systems of the 12V units and the (opt.) 110V converter, water heater, etc. - See Electrical System pages.

## DOCK POWER

110V (opt.) dock power is connected through the weather shielded dock entrance receptacle (twist type, 3 prong). When connecting at dockside be sure to leave slack in the entrance cable so as not to apply strain at the disconnect plugs. The entrance circuit rudirectly to the main breaker for distribution through the panel breakers to the converter and to the standard electrical convenience outlets or to any optional equipment.

A "Nite Light" in one of the convenience outlets is helpful by indicating the 110 circuit is energized. Grounding is assured by this three wire feed unless the dock facility integrity is faulty Verify dock supply. Use 110 volts and 60 cycles only.

# STATIC ELECTRICAL PROTECTION

All shrouds, chain plates, etc. have been carefully grounded to "thru hull" seacocks to "ground" any static electricity that may develop.

# SEAWIND II

# ELECTRICAL SYSTEM

# GENERAL

The following pages provide a description of the electrical circuit and equipment installed in the SEAWIND II. All electrical circuit diagrams are in schematic form for ease of servicing.

# COMPONENT LOCATIONS

- A. Battery Mounted on platform, located in engine compartment, starboard side. Access through sail locker.
- B. Battery Switch located below companionway, adjacent to char table, on removable panel.
- C. Switch Panel Also located below companionway.
- D. Water Pressure Pump Located in engine compartment, port sic on shelf. Access through sail locker.
- E. Hot Water Heater (Opt.) When installed, located in engine compartment, port side, on shelf. Access through sail locker.
- F. Converter (Opt.) When installed, located in engine compartment, starboard side, on main engine bulkhead. Access through sail locker.
- G. Shore Power Receptacle (Opt.) When installed, located in af cockpit area.
- H. Main Distribution Terminals Located in engine compartment, starboard side. Access through sail locker.
- I. Engine Instrumentation & Controls Located in teak panel box forward end of cockpit. Guages consist of ampmeter tachometer, oil pressure, water temperature and fue guages. Also engine pre-heat (diesel), start and shut off controls. Access to these guages is gained by removing switch panel face below companionway.
- J. Engine Alarm For high water temperature and low oil pressur located on back side of switch panel board.

# CIRCUIT WIRING

Two separate wiring harnesses provide power to all circuits instal The forward harness originates at the main terminal in the engine extending forward to the head area where all mast wiring and runnilight connections are made, then around V berth to hanging locker.

The aft harness also originates at the main terminal in the engine compartment for bilge pumps, water pressure pump, stern light, opt shore power inlet and galley outlet, converter, hot water heater afuel guage.

#### FUEL GUAGE

The fuel guage will energize by operating the main battery switch. manual guage is mounted on top the fuel tank, access through steer lecker.

Primary power is supplied to the electrical system by a single 90 a hour battery or by two 90 ampere hour batteries (optional) through mounted battery master switch. Wiring is Ø size battery cable to a high starting currents required by the engine starter motor. Batterlectrolyte levels should be checked periodically and replenished distilled water when available. Battery terminals should also be checked and removed whenever corrosion becomes evident. Remove corrosion by washing with a solution of Baking Soda and water. Be replacing battery terminals, scrape clean with a knife and/or sand Coat each terminal with bearing grease before tightening down.

Wiring contained within the main mast is inter-connected to the wi within the hull via mating 5 pin amphenol connectors. Wiring to t connectors is as follows:

1.	Connector Pin A	Black (#14 wire) DC Return
2.	Connector Pin B	White (#14 wire) Mast light
3.	Connector Pin C	Yellow (#14 wire) Bow light
4.	Connector Pin D	Orange (#14 wire) Spreader L
5.	Connector Pin E	Green (#14 wire) Bond

The 5 pin male amphenol connector is potted with a silicone rubber compound to minimize corrosion. It's mating 5 pin flanged female connector is sealed and fastened to the deck to prevent leakage in the hull.

# ELECTRICAL SYSTEM

Basically the electrical system is broken down into several subthat fall into the following categories:

```
1.
     Cabin Lighting
2.
     Exterior Lighting
                    Running Lights
                b.
                    Bow Light
                    Mast Light (Opt.)
                d.
                    Spreader Lights (Opt.)
3.
     Domestic Circuit Functions
                    Water Pressure
                    Shower Sump (Opt.)
                    Refrigeration DC (Opt.)
                d.
                    Bilge (Opt.)
                    Electric Head (Opt.)
                е.
4.
     Instrumentation (Opt.)
                a.
                    Speedo
                b.
                    Apparent Wind Indicator
                    Annemometer
                    Radio
                d.
                    Other, as specified
                e.
     AC Circuits (Shore Power Option)
5.
                    Converter
                a.
                b.
                    Hot Water
                    Refrigeration
                    Air Conditioning
                d.
                    Outlets
                е.
All wiring is color coded for ease of identification if service
           Color coding is as follows:
required.
     1.
                Black
                              DC Return
     2.
                Green (#8)
```

```
#8=APPROX.3
                                              # 14 = A PPR OX .
                        Common Bond 3/16
3.
          Blue
                        Interior Lighting
4.
                        Running Lights 1/6"4
          Red (#14)
5.
          Yellow 🔪
                        Bow Light
6.
          White
                        Masthead Light (Opt.)
                                                     Mast Ligh
7.
                        Spreader Lights (Opt.)
          Orange
8.
          Brown
                        Shower Pump (Opt.)
9.
          Green (#14)
                        Instrumentation (Opt.)
```

Terminal strips installed at the main distribution terminal allovoltage and continuity checks to be made without necessitating spanel removal, should servicing be required. Continuity checks made from the primary input (#8 Red wire) to the switch panel.

Bilge Pump (Opt.)

Most lighting, with the exception of some bulkhead mounted units connected to the system via terminal strips located in close proto each fixture. This provides ease of maintenance and/or removes hould this become necessary. Bulkhead mounted units not having

terminal strips are connected directly to the boat wiring.

# ENGINE WIRING

10.

Grev

All engines installed have been prewired by the engine manufactu

Consult engine manufacturer's manual for additional information.

# BONDING

Electrical bonding has been provided for the mast and standing r to several thru-hull fittings. The main mast has been bonded th Pin D of the 5 pin amphenol connector, as described in the previsection. Bonding of the headstay is through the stemhead fittin the forepeak. Also, all chain plates and mast steps are bonded provide a bond for the shrouds.

Thru hull fittings are used to provide a current path to the wat these units are the only metallic elements in direct contact wit water.

# OPTIONAL SHORE POWER CIRCUITS

#### Converter

The main purpose of the converter is to maintain the batteries a charge when shore power is used. The primary A.C. input circuit converter is controlled by a circuit breaker on the main switch in the chart table. With shore power applied and this circuit be in the 'ON' position, the batteries will be brought up to, and maintained at, full charge by the automatic circuits within the converter. Should the engine be started while shore power is in the converter will automatically shut off, protecting the altern

Operating and maintenance instructions and other specific inform will be found in the equipment manufacturer's manual.

# 2. Hot Water Heater (Optional)

Domestic hot water is provided in either of two ways. While unce power, engine cooling water is circulated through a specially convater jacket surrounding the tank of the hot water heater. When power is supplied, however, water is heated by an electrically however applied into the water heater. Operation of the heater with power applied is controlled by a circuit breaker on the main swapanel in the chart table.

Consult the individual equipment manufacturer's manual for additinformation pertaining to this unit.

NOTE: DO NOT operate A.C. unless water is in tank.

# A.C. Outlets (Optional)

All A.C. outlets become operable when shore power is applied and switch marked "110V Outlets" is placed in the "ON" position at main switch panel in the chart table. The circuit breaker contoutlets installed.

# CIRCUIT PROTECTION

All functional circuits are protected by individual circuit break mounted on the main switch panel. Each circuit breaker, both A.C.D.C. circuits, is a thermal type breaker and will automatically s to the OFF position in the event of an overload. A minimum of 3 waiting time is required prior to resetting the breaker,

In the event of an overload, place the appropriate switch in the position. Should the overload persist, leave the switch in the position and trouble shoot the affected circuit. DO NOT try to the circuit into operation as serious damage may occur.

# CIRCUIT PROTECTION

_		• •
1.	Cabin Lighting	30 amps.
2.	Running Lights	10 amps.
3.	Bow Light	5 amps.
4.	Mast Light	5 amps.
5.	Spreader Lights	10 amps.
6.		15 amps.
7.	Shower Sump (Opt.)	20 amps.
8.	Head (Opt.)	<pre>* as specified</pre>
9.	Refrigeration (Opt.)	<pre>* as specified</pre>
10.	Instrumentation (Opt.)	* as specified
11.	Converter (Opt.)	10 amps. (AC)
12.	Hot Water Heater(Opt.)	15 amps. (AC)
13.	Refrigeration (Opt.)	<pre>* as specified</pre>
14.	AC OUtlets	15 amps. (AC)

# INSTRUMENTATION

Optional instrumentation installed is wired into the harnesses w possible. Terminal strips and/or plugs and recepticles are used provide ease of maintenance. Consult individual manufacturer's for additional information.

If an Apparent Wind Indicator is installed on the main mast, a 7 strip is installed to accommodate all wiring to the mast. Conne with the appropriate color codes are shown in Figure 5. A 7-ter strip is installed on the forward engine room bulkhead below the terminal strips to accommodate the wiring for the AWI. This als access to enable the several circuits to be troubleshot in the e operational problems.

Optional radio installations: RG58A/U coaxial cable is used to connect the equipment to the mast mounted antenna with appropria coaxial fittings. However, RG8/U is used only when specified an use is minimized due to installation requirements.

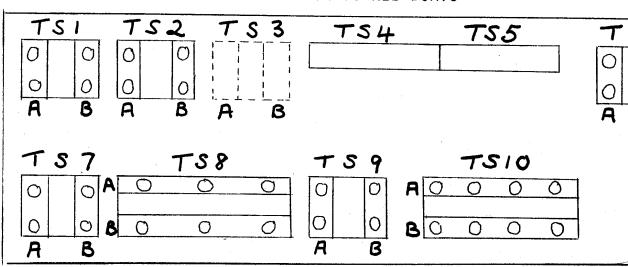
Factory installed instrumentation and radio equipment is provide most instances, with a separate circuit breaker switch on the sw panel. However, if all positions of the switch panel are filled equipment will be protected, and controlled by a single breaker combining all functions. Fathometers, however, are installed ge as self contained unites having their own separate battery power In such instances, circuit protection is not provided through the

switch panel. Follow the individual manufacturer's recommendation pertaining to battery replacement.

Optional refrigeration installed is one of three types: engine of 12V D.C., or 115V A.C. The engine driven unit may also be a combutilizing either 12V DC or 115V AC input power. Operation is autith engine operation or controlled from the central switch pane other times.

Optional electrically operated heads are controlled by push-butts switches on each unit; however, when installed, a separate switch the main switch panel must be placed in the  $\frac{ON}{ON}$  position. Consultational manufacturer's manual for additional information.

# THIS PANEL IS COMMON TO ALL BOATS



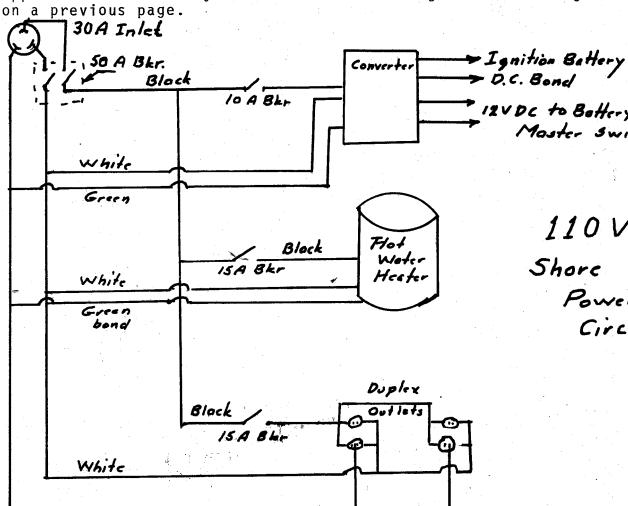
- TS1 A, Opt. Hot Water, A.C.
  - B, Opt. Converter, A.C.
- TS2 A, Opt. Outlets, A.C.
  - B, Spare
- TS3 A, Opt. Spare
  - B, Opt. Spare
- TS4 DC Connections
- T-S5 DC Connections
- TS6 A, 12V Feeder from main switch
  - B, Opt. 12 Ignition Cutoff for Converter
- TS7 A, 110A.C. from Shore Power Inlet
  - B, Neutral from Shore Power Inlet
- TS8 A, A.C. Neutral return from Main Switch B, A.C. Ground (All A.C. Circuits)
- TS9 A, Opt. Converter output No. 1
  - B, Opt. Converter output No. 2
- TS10 Á, D.C. Neg. (All Circuits) B, Bond

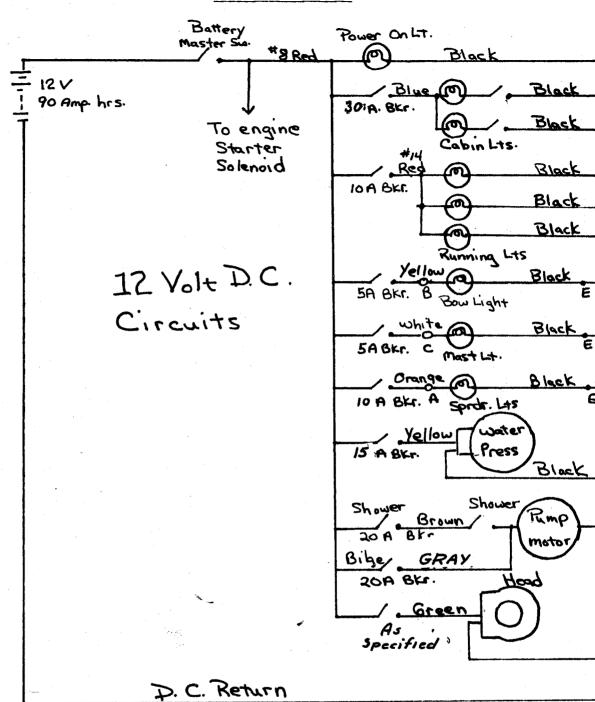
TS4 Term. 1 Cabin Lights - Blue Bow Light - Yellow 2. Running Lights - Red 3. Water Pressure - Yellow Radio (Opt.) - Blue Wind (Opt.) - Orange Speedo (Opt.) - White TS5 Term. 1. Spreader Lights (Opt.) - Orange Masthead Light (Opt.) - White Bilge (Opt.) - Grey 2. 3. Shower (Opt.) - Brown Head (Opt.) - Green Spare 1 (Opt.) - Green 6. Spare 2 (Opt.) - Red 7.

# CIRCUIT DIAGRAMS

Green bond

The following circuit diagrams are in schematic form and should puseful should service be required. Color coding has been noted wapplicable to identify each circuit according to the listing indion a previous page.





## THRU HULLS

All underwater "thru hulls" mate with threaded seacocks to for unit of maximum strength, adequately flanged inside and out. caulked and tightened to solidly support the port. Seacocks cany underwater ports when line maintenance or other causes dem High integrity "Wonder Flex" hose is used for all underwater p

Above water plastic thru hulls are fitted with gate valves to full drainage. They too can be fully closed if the occasion w Reopen when leaving the boat to permit self bailing. Remove a paper, rags, etc., from the cockpit or other drainage scupper to avoid retarded drainage.

Self bailing cockpit drains are led to seacocks which should be open when boat is unattended to prevent water from flooding bo

Metal objects and trash should be removed by hand from the dec ports to avoid stoppage. Periodic flushing to assure full flo recommended.

#### HAND BILGE PUMP

A manually operated bilge pump (handle in the Gear Box), has be conveniently located in the cockpit. The suction hose runs to strainer in the bilge sump with discharge through a gate valve above water thru hull.

Opt. electric pumping of the bilge is accomplished by aligning "Y" valve with the bilge suction hose and the "Bilge" switch on the electrical control panel. Be sure to select proper "Y" valposition when using the shower. Periodically (or when stoppage indicated) inspect the strainer at the end of the suction line clogging. After cleaning, replace at the bottom of the sump. Other drainage systems may have been arranged to meet your part needs. You may want to note them here or to lable them for you "quests" convenience.

#### DRAINS

Sink drains are piped to thru hull outlets with appropriate shoruns of flexible hose - no traps.

#### SHOWER

The (opt.) shower has a sump drain that is piped to the electrical pump. To operate, set the "Y" valve lever to align with shower drain suction hose and turn on the "shower" switch at the electrical control panel. Then operate the pump when showering the convenient push-pull switch in the shower compartment as the need demands.

#### I C E C H E S T

The box is of fiberglass construction with a minimum of 2-1/2" pofoam insulation.

Teak gratings are provided to permit air circulation (a must for general cooling.) The box cover should be replaced immediately a each use for ice economy. When not in use be sure the ice chest been pumped dry. The box is usually drained by a hand pump mount in the galley sink. A small tray of charcoal will help to eliminate development of mildew and odor.

To service, the hand pump piston assembly may be removed by unscribed top cap (just below the knob) and pulling outward. If the pudevelops a leak at the top cap it can be corrected by replacing "O" ring seal. Remove knob, top cap and pick out the damaged "O' ring from brass bushing mounted in the cap. Replace "O" ring and careful not to cut it when replacing cap over threads. The pump valve can be accessed by removing screws at base of body.

# FRESH WATER SYSTEM (POTABLE).

Fresh water storage is provided in a welded 16 guage stainless tank located under the floor hatch. Access is through a 4" diaplate that unscrews from the top of the tank. Supply is through this hole and the quantity stored varies with the boat (see special sheet) and is determined by inspection. The tank is vented. Capacity is noted on page 2.

# ONLY PURE POTABLE WATER SHOULD BE SUPPLIED TO THE TANK

To purify any questionable water - add 1/6 oz. of chlorine (or household bleach) per 10 gallons, or 1 oz. for a 60 gallon tank Chlorine tablets are also available - follow package instruction

Manual fresh water pump systems have a check valve at the tank supports the supply of water with a minimum of pumping. Elect supplied water is drawn from the tank by a 12V pump. With the "ON" it automatically runs to maintain water pressure as a fau opened. If water is drawn when the pump switch is off, a low cut off may require resetting. This cut off protects against "drain down" through a "Low water cut off" control. In normal operation the pump should start after a faucet is opened and s shortly after it is fully closed. If the pump runs periodical when no faucets are open, a leak in the system is indicated. off the pump switch until the leak is located to prevent water wasteage. A check valve at the tank maintains "prime" at the but the unit is self priming.

# HOT WATER

The optional Raritan hot water system gets it's heat from an immersion type 1250 watt, 110V electric heating element and a he exchanger from the engine cooling system. The engine coolant do not directly contact the fresh water supply. The glass lining of hot water tank and a rod type magnesium anode help to keep water crystal clear and free of metalic waste.

A thermostat (under the tank control cover plate) can be adjusted from  $120^{\circ}$  to  $190^{\circ}$ . The normal hot water temperature setting is Water heated by the alternate engine heat exchanger system may shotter than  $150^{\circ}$ . The tank is fully insulated with customary glabler insulation. When using electric energy a recovery rate of gallons per hour -  $40^{\circ}$  rise is accomplished.

The tank is fully protected by an ASTE safety relief valve exhauto bilge and was designed to withstand 300 lb. pressure.

Water conservation should be practiced unless a resupply is read-available.

#### THE HEAD

See Manufacturer's warranty and instruction sheets.

The head uses sea water in an independent hand operated system. seacocks open, water should be hand pumped through the unit. We the sides aids in the subsequent flushing operation. Residual was will minimize staining.

The system has a controlling hand inlet valve to regulate rate of Normally it pumps out faster than in. In flushing if the water bowl rises instead of receding it may be due to trash momentarily lodged under the outlet flapper valve. This can be cleared by particle (or completely) closing the inlet valve and continuing to pump. degree of resistance will be noted in pumping which is normal. At the bowl clears of all debris, open the valve again and flush with few additional strokes to clear the discharge line. TO PREVENT OVERFLOW UNDERWAY, CLOSE THE INLET VALVE.

Don't throw hard or stringy substances down the toilet. Avoid patowels, (high wet strength paper), sanitary napkins, tampons, and plastic tipped cigarette or cigar butts, (ordinary cigarettes are 0.K.). Bobby pins, razor blades and other hard objects must be "fished out" to avoid mechanism damage.

The bowl can be cleaned with "Ajax" and deodorized with "Clorox" Don't use Pine Oil, Lysol, Lestoil, etc., kerosene like solvents as they will damage and swell rubber parts. (Don't winterize wit alcohol or kerosene.) Put vaseline or mineral oil on the piston

for easier action.

# ALCOHOL OVEN RANGE

Your alcohol stove uses denatured 95% ethyl alcohol or 91% isoalcohol stove fuel (containing less than .003% by weight non vomatter.)

See alcohol tank location on page 2. After adding alcohol up full, pressurize the supply tank to 10 to 15 lbs. (35 psig max. pressure pump from gear box. A pressure guage and safety shut is on the tank.

There is a safety shut off immediately below the stove that shows the store that shows the store that shows the store was installed in gimbals permitted (with shelf stowed in back and locking bolt released) a 45° switcher side of vertical. A flexible supply hose accommodates to motion.

# TO OPERATE:

DO NOT FILL BURNER FLANGE. The priming cup is located at the boof the burner.

- Preheat burner momentarily open burner valve counter cloc (squirting sound) to fill priming cup 3/4 full, then close and ignite alcohol.
- 2. Light burner when priming alcohol (step 1.) is completely consumed, open valve counter-clockwise and ignite vaporized alcohol. (hissing sound).

Do not put utensils over burner until it is burning with appropriate controlled flame. If the flame pulsates, the valve on the back the stove should be adjusted to reduce pressure at the burner.

If too much alcohol (priming cup more than 3/4 full) is used, the flame will flare up - not usually serious.

If too little is used, the burner will not get hot enough to ligh

TO SHUT OFF A BURNER - Turn valve clockwise all the way.

A hot burner can be relit. Otherwise reprime. A hot burner proda hissing sound when turned on.

To clean burner orifice, rotate valve to extreme counter-clockwis position and then return to clockwise position.

Oven operation is similar to surface burners except that baffles is be raised when priming burner. Temperature regulation is by manual adjustment. Control is under the oven door.

Do not replace the counter shelf until the stove has cooled down.

USE WATER TO PUT OUT ALCOHOL FIRES. SMOTHER GREASE FIRES OR USE BAKING SODA OR A CLASS B FIRE EXTINGUISHER.

# KEROSENE OVEN RANGE

Your kerosene fuel tank location is shown on Page 2. Pressure printing gear box.

#### TO OPERATE:

- 1. Pump to 15 lbs. air pressure to pressurize tank. The burner must be preheated as follows; Fill the priming cup beneath the burner about 3/4 full of alcohol. DO NOT OVERFILL. Lie the priming alcohol and wait until consumed. Open the contant and light the burner. Pre-heated burner produces vaporized fuel and will ignite like a gas stove burner.
- 2. Incorrect burning: Insufficiently preheated burner may flame up. Shut off and restart as described above. If flame is burning with a crackling sound, shut off flame, reopen and relight immediately by holding a match to the burner.
- 3. General dirt and soot that may have collected in the primicup and on the burner should be removed, as the flame otherw may burn with a yellow color. The first time a stove is lital a flame may be yellow for a few minutes, but will turn blue a while.
- 4. Shutting off Turn wheel to extreme right. A "Ball Valve" installed in the fuel line under the stove should be used as shut off. Air pressure in tank may be released to prevent leakage.

Cleaning the nozzle - The nozzle is automatically cleaned by turning the knob to the extreme left position. Clean only when burners are cold, before initial starting.

5. No rough scouring powders or oven cleaners should be used for cleaning to avoid damaging the finish.

# PROPANE OVEN RANGE

Your optional propane stove has a shut off at the tank and imme

The surface burners operate the same as ordinary gas stoves. I speed and flexibility of gas top burners is a special advantage you're in a hurry. However, after a certain point a higher flawon't cook foods one bit faster. There are a few general rules selecting the right flame height.

- 1. The flame should never extend beyond the bottom of the pan
- 2. Pans which conduct heat slowly (stainless steel and cast in for example, should be used with a low or medium flame unless are cooking in liquid.
- 3. Foods cook just as quickly at a gentle rather than a furious rolling boil in either case, the water temperature is  $212^{\circ}$ .

About covers - a good cover makes utensils perform better. Covernment of the covernm

The oven burner requires that the oven pilot flame be ignited at the oven pilot flame

Wait 30 seconds and then light oven burner pilot. PILOT MUST I LIGHTED WHENEVER CONTROL IS AT "OFF" SETTING.

"PILOT OFF" POSITION ON THERMOSTAT KNOB - Turning oven control to "PILOT OFF" position turns off gas to oven burner and oven p

When the pilot is lighted, just push the oven control knob in a turn to the temperature you want. The oven burner will come or automatically. It may take several seconds to light but don't concerned. This is because lighting involves a series of steps which take a little time.

Oven temperature - as you use the oven, you might notice that to oven burner turns on and off as the oven operates. This is the we get the low temperatures you'll find so useful. Since the burner is off part of the time, you may wonder whether food new to be cooked longer. The answer is no. The amount of heat is same - it's just applied in a different way.

Preheating the oven - Preheating means bringing the oven up to temperature before putting in the food. Generally speaking, p when using the oven at temperatures below 225 and for most ba foods (breads, cakes, etc.). With other foods, whether or not preheat may change the timing slightly, but the end results sh be the same.

Air Circulation - Gas ovens must have free circulation of air. Heated air comes in through the openings in the oven bottom to fresh air, even-temperature cooking. Several things can block change this air flow and cause poor results.

- 1. Pan touching the oven sides this blocks air flow and tran extra heat to the pan from the sides of the oven. Cakes may be unevenly and food at the edge of the pan may scorch.
- 2. Pans too large for the oven Here the most common offender a cookie sheet which is too big. There should be at least 1 to inches between the edge of a utensil and any oven surface. A cosheet can fit into an oven but be so large that it blocks air circulation. Because heat is trapped under the pan, cookies with burn on the bottom before the tops are brown. Crowding pans calso cause uneven baking. Allow 1 to 2 inches for air to circulative between utensils.
- 3. In an effort to keep a new range sparkling clean, users som misuse foil. It should never be used to cover oven racks or so it blocks off any of the openings provided for air circulation. should it be used directly under a utensil, because it will refleat away from the bottom of the pan.

If you use foil to catch a spillover, cut a piece just a little than the pan and put it on the oven bottom - but not over the a openings.

Oven Cleaners - oven cleaners (particularly the spray type) can the thermostat sensing device so that it does not sense oven te accurately. If you must use oven cleaners, follow directions e and carefully wipe any residue off the sensing bulb (metal tube oven.

Setting the Dial - oven temperatures will be most accurate whe set the dial by turning just TO the temperature - not up to a temperature and back. This also applies when turning down to warm temperature.

Range Size - your range is designed to do a good job of yachti cooking. It is considerably smaller than a standard range and be expected to have the same capacity and capabilities. For eyou cannot bake a cake in a tube pan because of height limitat

In the interest of safety it is important that the properties liquefied petroleum gases be understood and that safe practice their use be followed. Under moderate pressure the gases lique upon relief of the pressure they are readily converted into the gaseous state. Advantage of this characteristic is taken in the usage, and for convenience they are shipped and stored under the safety are shipped and stored under the safety are shipped and stored under the safety flammable natural or manufactured gas, except that the heavier than air. Although the vapors tend to sink to the board and enclosed compartment into which they are released, they diffuse throughout, and are not readily dispelled by overhead ventillation. Safety requires the prevention of escape of an liquefied petroleum gases, for when mixed with air in certain proportions they will explode if ignited.

All liquefied petroleum gases are effectively odorized by an agent of such character as to indicate positively, by a disti

odor, the presence of gas.

## CAUTION

- Keep container valves closed when boat is unattended. Clo immediately in any emergency.
- Be sure all appliance valves are closed before opening con valve.
- 3. Always apply lit match or other flame to burner before ope burner valve.
- 4. Close master valve on appliance whenever appliance is not
- 5. Test system for leakage at least twice a month and after a emergency in accordance with the following procedure.

With appliance valves closed, the master shut off valve on the appliance open, and with one container valve open, note pressu the gage. Close container valve. If pressure drops, locate 1 by application of liquid detergent or soapy water solution at connections. Repeat test for each container in multi-containe

# NEVER USE FLAME TO CHECK FOR LEAKS

Gas containers shall be condemned and withdrawn from service w leak; when corrosion, denting, bulging or other evidence of ro exists to the extent they may be weakened appreciably, or when have been involved in a fire.

Gas tanks connect with a Left Hand Thread. DO NOT OVERTIGHTEN in filling an excess condition develops the safety bleeder valvent excess gas. DO NOT TAKE A BLEEDING TANK ABOARD.

# CLEANING - DECK AND HULL

The high gloss finish of Wright/Allied Yachts was developed throextensive experience, adequate mold maintenance and painstaking quality control. When it was released from the mold it was as a baby.

The "Gel coat deep" color is a glass hard non porous surface the does not trap dirt. It will wipe clean if attended to "early or

The following are examples and obvious sources of damage that cafrom surface appearance -

AVOID THEM TO MINIMIZE CLEANING CHORES

- 1. BARGING Metal dock fittings, tools, etc.
- ABRASIONS Scratches caused by gritty substances, dirt and sand in deck shoes, etc.
- STAINS Crocking from vegetable dyes, heal scuffs, rust,
   mineral deposits at drainage location, etc.
- 4. SMEARS Grease oil and tars.

Delay in clean up multiplies and aggravates these nuisances.

If the deck is wet when you first go aboard, use a good chamois wipe up the critical traffic areas before tracking spreads. (a chamois should be treated like your own skin. Use clean water, soap and rinse adequately.)

When overall cleaning is necessary, use a non abrasive detergen solution. (Spic & Span), Bristle Brush, Mop or sponge followed adequate rinsing and chamois to avoid water spotting and streak

After the fiberglass areas have generally dried out, any remaini spots and discolorations can then be attacked on a spot by spot Mirror Glaze (approved for fiberglass) or other cleaner/polish w usually accomplish the job in a single application, followed by polishing with a clean soft cloth.

Mild abrasions can be scrubbed with "non abrasive" household cleaners, "Bon Ami", etc. More severe abrasions may require "compounding", wiped clean and hand polished.

Grease smears and dyes will usually respond to Counter Top and Stainless Steel polish and cleaner such as "Liquid Gold" or any similar non-abrasive cleaners that your experience and availabit suggest.

Deep scratches should be scrubbed to remove all "deep down" formatter. Then wax to fill and seal.

Unusually severe conditions may demand gelcoat repair by "addit -and subsequent very fine wet sanding (grit 600). Such repair i usually performed by yacht repair experts to avoid exaggeration an already difficult condition.

A residual trace of mold release wax imparted the original hig to the Gelcoat. If desired, hard Carnuba (Automotive Body) was be used for surface protection and high gloss hull maintenance. However, it should be remembered that even the highest quality produce a film layer that yellows and develops haze under most weathering conditions. Wax on the deck may produce excessive slipperyness. The hull and all smooth surfaces of the deck show waxed at least once a season.

# TEAK TRIM

Teak was supplied because of its many attributes in use and we when exposed to moisture, sun, etc., teak "weathers" from its brown wood shade through to silver. Frequent oiling with "Teashould prevent drying out and cracking and maintain dark appears of wood. Teak cleaners and brighteners also serve to renew a restore surface color and weather resistance.

Smears may be removed by light sanding with the grain. Sandi reveal the original color etc., re-oiling and weathering will the coloring.

Varnish and Polyurethane finishes may be applied to teak. Set life and care of varnish is dependent on the varnishes. Ever varnish is regularly maintained, stripping is eventually requito return the wood to an overall uniform appearance.

Protect the Gelcoat by masking around woodwork to be strippe

#### HATCH & PORTS

Opaque plastic hatches can be cleaned with any of the "counter to cleaners. Metal hatches may be scrubbed or repainted. LEXAN HAAAND THE PLEXIGLASS PORTS SHOULD BE WASHED WITH MILD WINDOW CLEAN MATERIALS, (WINDEX.) However, since plastics are softer than glocleaning with razor blades or other sharp or abrasive material should be avoided or permanent scratches may result. Lexan hatches should not be cleaned with spray cleaners that use "Freon" proper Tinted (dark smoke color) Lexon hatch covers lets in 80% of available, allows you to look out with ease, yet is nearly impossible see through from the outside. The sealing gasket is of special formulated neoprene for salt water and pressure resistance.

The frame and Lexan are practically unbreakable, but for your over safety, open and close them from a position where you have two available, one to regulate position and the other to turn the adjusting locks.

Plastic port frames can be cleaned with denatured alcohol, but other chemical cleaners that may attack the plastic finish.

#### STAINLESS STEEL

Stainless steel can be "stained" by extended contact with foreign materials. Your yacht has been carefully assembled with stainless fastenings throughout. Before installing other fixtures, fasten or cotter pins, etc., be sure they are not corrosive. Stainless usually wipes clean with a chamois. Stainless steel polish and cleaner may, of course, be useful.

The 1 X 19 rigging wire and terminals are stainless for utility long life. They can be damaged by excessively sharp bending or abrasion by concrete bulkheads, piers, etc., but unless externadamaged, are generally maintenance free. Parted strands or seventhinks indicate replacement. At least each season stainless steeds swage fittings, turn buckles, etc., should be examined for stress cracks or other abnormal conditions.

#### ALUMINUM

The aluminum masts, spreaders, masthead parts, etc., have been fully anodized to a dull grey finish and require minimal maintenance they should be stepped by skilled craftsmen only.

Shackles and other metal parts in sheets that repeatedly strike against aluminum parts can cause unsightly blackened area. If y "hear them" correct the cause before permanent harm is done.

# SAIL LOCKERS

The sail locker fences were snugly fitted and interlocked to min the need for fasteners. Usually a single obvious turn button releases the 1st fence. Subsequent sections twist and lift out Weatherproof padlocks of your own selection can be fitted into t sail locker "Anti Rattler" hatch fasteners.

#### CABIN

Included in the attached literature is a booklet covering the ca and cleaning of Herculon fabrics. They note: "The best time to remove a spot is while it is still a spill". Avoid solvents that may harm backings and filler.

Counter tops, stainless steel sinks, chrome faucets, can all be maintained with a cleaner like "Scott's Liquid Gold". Stainless steel and counter top cleaner. Formica plastic laminate bulkhea require minimal care, but their sheen may be renewed by any of t quality laminate cleaners.

The interior teak can be renewed with teak oil or any of the hou finishes now on the market such as "Pledge", "Pride", or "Liquic for wood.

# BERTHS

Some cabin plan arrangements provide a telescoping berth held in place by barrel bolts. Pull out to extend and fill the gap with the prefitted plywood backed cushion. Others have a swing up backrest.

Some dinette tables fold up and have folding legs. The short st in the bottom of the leg should be positioned in the small steel retainer in the sole to avoid sole scratches and provide more ri leg support. Drawers drop into place in the closed position, lift and then puto open.

Locker doors provide access to several storage areas. They are closed by elbow catches located where they can be easily disengate with your index finger. Dont force any door or drawer until you unlatched it properly.

The dual purpose privacy door to the forward compartement serves as both a hanging locker door or a companionway door. The top published the closure. A turn button secures the foresection.

Additional locker space is accessed through removable cover boar under the cushions of most berths and settees.

- ged in them, and remove. This is very important on the en intake seacock. You will have to remove the scoop screen order to check. Make sure it is replaced before launch.
- STEP 2 Check propellor shaft nuts for tightness and make sure cot pin is completely bent around shaft.
- STEP 3 Check hull for any chips in gel coat which may have occure during shipment, and repair.
- STEP 4 Touch up any bottom paint that may require it.

nections for tightness.

STEP 12

- STEP 5 Seacocks are normally opened for shipment so make sure the are all closed before launching. Check all instrument thr hulls for proper cap, plug or transducer.
- STEP 6 The propellor shaft packing gland nut is normally hand tig Check this and make sure it is loosened before launching.
- Check this and make sure it is loosened before launching.

  STEP 7 Check all seacock tail piece nuts for tightness. Tighten hand and then 1/2 turn with a wrench should do it. At the factory we only hand tighten for shipment because of the

<u>leather washer within the tail piece</u>. With tightened tail piece the leather washer would dry out and crack. While g through this procedure check all hose clamps on seacock co

a lot of unnecessary work later. Packing gland nut should

If your boat has been in winter storage check all deck dra

- STEP 8 Check the operation of all gate valves and make any adjust ments if required. Leave gate valves open. They are all above waterline and do not require any attention during laching.

  STEP 9 Check rudder shaft packing gland nut for tightness. This normally done at plant but a visual check before launch sa
  - be hand tight and then 1/2 turn with a wrench. Then tight locking nut.

    STEP 10 Visually check propellor shaft coupling set screws and mak sure they are wired.
  - STEP-11 Check engine control linkage. Make sure clutch is fully e gaging in both forward and reverse. You should be able to feel it click into forward and reverse. With a hydraulic clutch it is written on the top of the clutch housing. Make sure throttle arm is hitting both stops on engine. Make sure stop cable hits both stops on engine. This saves a lot of problems once the launching has been opleted and the crane or whatever has unhooked from you.
- fittings, vents and hoses before launching for bee hives, in the lines. This is quite common and could cause a grea amount of problems. If your boat is equipped with a holditank and vented overboard, a plugged vent line could cause tank to burst, causing quite a mess.

  Forward tank vent thru hulls have also been known to plug with soap from washing decks down, so make sure this is all checked before starting engine.

- Every fuel tank is filled with 15 gallons of fuel, the fue STEP 12 system bled and engine run at the factory. The entire fu (cont.) cooling, oil and exhaust systems are tested and checked o before shipping. Fuel tanks are pressurized and tested twice before installation. Even with all this testing an checking it is still necessary to double check the follow items. Check all fluid levels - oil, cooling, water and gearbox STEP 13 (see engine manual). Check all fuel line fittings and connections for tightnes STEP 14 from tank to engine. Make sure all fuel valves are open. Examine all drive belts for tension and alignment (see en STEP 15 manual).
- Check all cooling water hoses and exhaust hose connection STEP 16 for tightness. Make sure exhaust thru hull valve is open
- Check fuel fill and vent hoses at tank and at vent thru h for tightness, also at fill deck plate. If possible fill tank at this time and check tank and fittings for leaks. it isn't possible to fill at this time these items should checked at the first filling. Check the engine starting circuits according to the follow STEP 18

STEP 17

steps:

- Place reverse gear control in neutral position. (a) Make sure no one is working or anywhere around prope This is very important! Turn battery master switch on. Pull out stop cable, check to make sure it is working
- properly and hold knob out. Push start button just enough to hear engine crank a then release button. Do not crank the engine too long or water pump impellor damage may occur. The engine should be cranked more than three seconds. Turn battery master switch off and push in stop cabl (f)
- Check the engine mount adjustment nuts for tightness and STEP 19 the lag bolts which secure each mount to engine bed.

Do not open any seacocks, let the boat sit in water for fifteen to thirty minutes. During this period visually all seacocks for leaks. If a leak appears between the hand the seacock flange the boat will have to be hauled at thru hull rebedded. If a leak appears around the body of seacock, tighten the valve body nuts to stop leak while is still in water.

Make sure to check all seacocks. If leaks are found detwhat course of action is to be taken before hauling. All check any instrument thru hulls, consult individual instrument manuals if leaks are found. Be careful not to over

STEP 2

plastic thru hulls.

make sure valve is open.

SIEP

After seacocks have been determined water tight, take one cock at a time, open it and check tail piece and hose contion for leaks. If a leak appears around the tail piece wait a few seconds and let the leather washer swell insidual piece, then tighten nut. If leak still appears around, remove the tail piece and check out the leather wash Make sure leather washer is properly seated before reinst

tail piece. Continue with each seacock one at a time. Is sure you close seacock before removing the tail piece.

STEP 3

The loosened propeller shaft packing gland must have a drorder to keep the shaft cool while in operation. If no coccurs and engine is ready for starting, start engine and under load forward and reverse until a drop has been establid to the shut engine down and adjust nut by hand until you establid drip about every ten or fifteen seconds. After this is of tighten locking nut against packing gland nut. The time between drips will vary on new boats until the has some hours under load. If the dripping stops, loosering gland nut completely and run under load for a while, forward and reverse to clean out packing gland and start shut down engine and then adjust nut.

STEP 4

The rudder shaft packing gland should be water tight with binding shaft. In some cases the rudder shaft packing glwill be above the waterline, so the only way to check it properly is to check it while under way.

STEP 5

STEP 6

Check exhaust thru hull while engine is running.

Check bilge pump thru hulls, whenever pump is put to use,

WINTER SHIPMENTS FROM FACTORY

During winter shipments your engine is fully winterized be factory before shipment. During initial start up you will some anti-freeze running through your exhaust system. Do be alarmed by this, as your engine warms up it will disip The fresh water system is also winterized before shipment with a non-toxic drinks his also winterized before shipment

The fresh water system is also winterized before shipment with a non-toxic drinkable anti-freeze, blueish in color. though the water is harmless, we advise you to flush your tank out and run some fresh water through the system befo consumption.

