

OWNER'S GUIDE



Jensen marine

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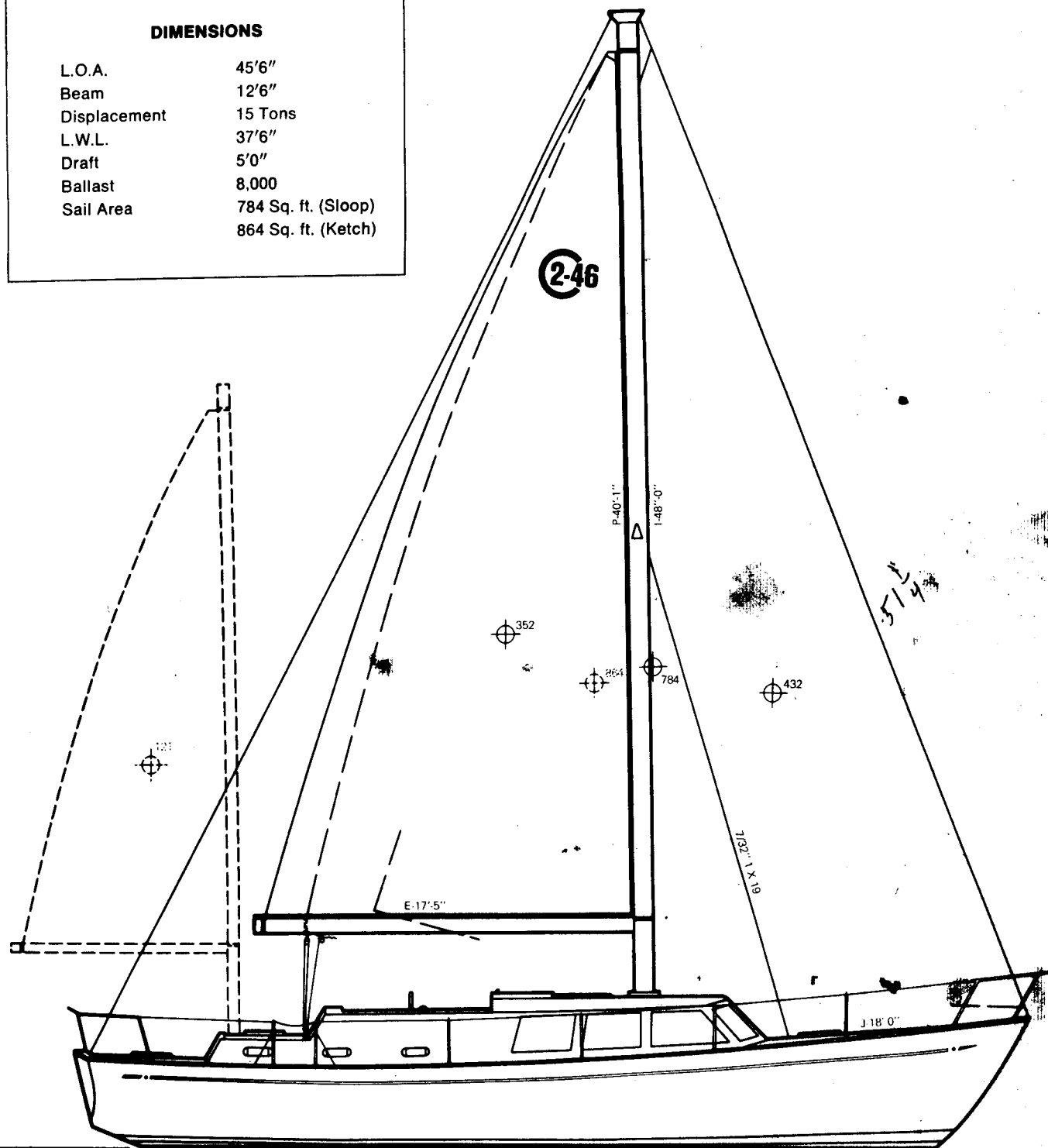
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IMPORTANT PLEASE READ

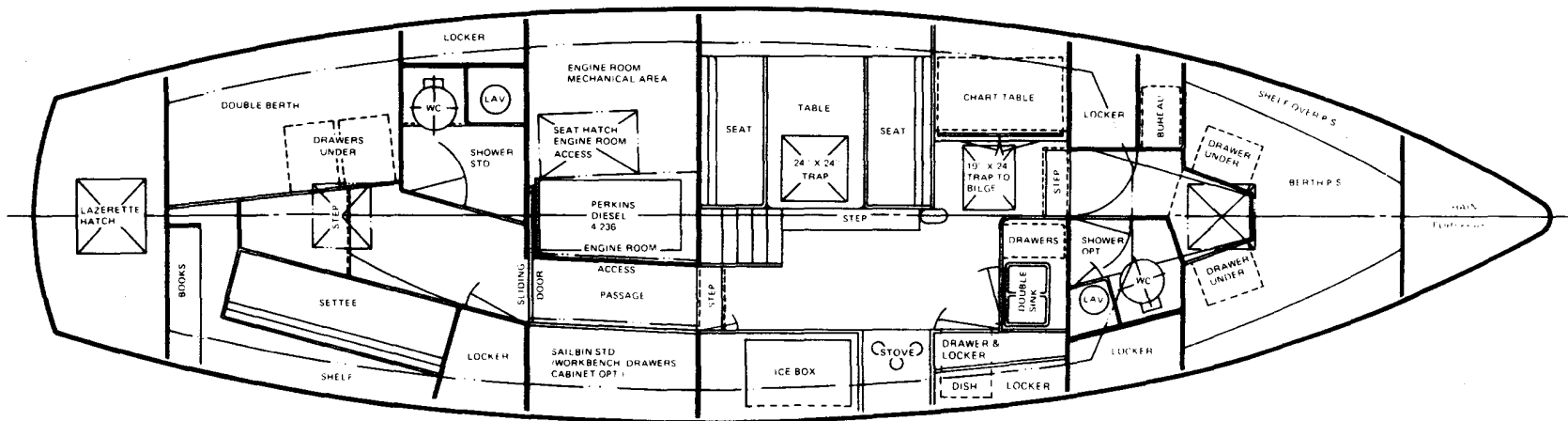
CAL 2-46

DIMENSIONS

L.O.A.	45'6"
Beam	12'6"
Displacement	15 Tons
L.W.L.	37'6"
Draft	5'0"
Ballast	8,000
Sail Area	784 Sq. ft. (Sloop) 864 Sq. ft. (Ketch)



CAL 2-46



- 235 FISCHER STREET COSTA MESA CALIF 92627
BOUNDARY ROAD MARLBORO NEW JERSEY 07436
20 21 1/4 25 27 1/2 29 33 39 40 42-46
A. B. N. COMPANY

Jensen marine

SUBSIDIARY OF BANGOR PUNTA OPERATIONS, INC.
235 FISHER STREET / COSTA MESA, CALIFORNIA 92627

THE JENSEN MARINE WARRANTY

Jensen Marine warrants each new product manufactured by it to be free from defects in material and workmanship under normal use and service for a period which shall expire on the sooner of 180 days after commissioning by the original retail purchaser, or one year after the date of shipment by Jensen Marine.

Jensen Marine makes NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE, as to the mast, as to any external finish applied to the product or any part thereof.

Jensen Marine makes NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE, as to engines, toilets, stoves, refrigerators, batteries, ignition, lighting devices, blowers, propellers (folding or otherwise), and/or other equipment or trade accessories manufactured by others. Jensen Marine will deliver to the original retail purchaser the warranties, if any, extended to Jensen Marine by other manufacturers.

Jensen Marine makes NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE, on each new product which is not operated or maintained in accordance with the Owner's Guide furnished with each new product, or as to any product or part thereof which has been subjected to misuse, negligent acts or omissions, or accident.

If within the foregoing time period it is established to Jensen Marine's satisfaction that the product, or any part thereof included in this warranty, is defective in material or workmanship under normal use and service, then the sole and exclusive remedy and Jensen Marine's liability shall be, at Jensen Marine's sole option, the repairing of the defective product or part thereof, or the replacement of same by shipment to purchaser F.O.B. Jensen Marine's factory.

Defective parts or products to be repaired or replaced pursuant to this Warranty shall be returned by the purchaser to a Jensen Marine Dealer, or, if repair by a Dealer is determined by Jensen Marine to be impracticable, returned to Jensen Marine's factory. All such returns shall be freight prepaid.

This writing contains the entire Agreement between Jensen Marine and the purchaser.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THE FOREGOING WARRANTY.

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OWNER'S GUIDE - CAL/CRUISING 2-46

Welcome into the fast-growing owner's group of Jensen Fiberglass Yachts! Your CAL/CRUISING 2-46 has been carefully engineered and built to require a minimum of maintenance and a maximum of sailing and powering pleasure. To insure this, the following is a description of the operational checks and tasks normally delt with by the owner to maintain his CAL/CRUISING 2-46. Each individual owner should also be aware of the operational and maintenance requirements of any optional equipment that has been installed as that information may not be contained in this Guide.

Let's become acquainted with these various operations by preparing a standard CAL/CRUISING 2-46 for a day's outing and discuss the maintenance routine which you should follow. It is good practice to close the fuel shut-off valves and all sea cocks when leaving your boat, especially for extended periods of time. The "coming on board" and the opening of these fittings starts our "Sailing Check-off List."

I. TANKAGE

A. FUEL

The two 135 gallon 10 gauge steel DIESEL FUEL TANKS are located under the main cabin sole with their tank fills on deck, port and starboard, and their vents directly above on the cabin side. The Fuel Shut-off Valves are on the forward engine room bulkhead along with their respective capacity gauges. When not operating the engine, these valves should remain CLOSED.

B. FRESH WATER

Two 85 gallon stainless steel Fresh Water Tanks are also located under the main cabin sole with their tank fills and vents adjacent to the fuel tanks. The valves for these tanks are in a compartment on the forward engine room bulkhead along with their respective capacity gauges. If the optional 50 gallon fresh water tanks have been mounted, they will be forward of the diesel fuel tanks but their valves will also be here.

II. SEA COCKS

All below water line through hull fittings, except the optional speed indicator, are equipped with bronze ^{Ball}gate valves. When the optional equipment is added, there could be a total of 9, so it is vital that you know the location of these valves. Gate valves OPEN by turning COUNTER-CLOCKWISE and CLOSE in a CLOCKWISE direction. It is a good idea when you open any gate valve to then close it a quarter turn. In this way, anyone can immediately tell if a valve is open or not. Open valves are sometimes broken by someone trying to pry them further open, thinking they are closed. Following is the location and function of the 9 gate valves.

A. FORWARD HEAD, 4 valves

All of these valves are located in the locker directly under the lavatory with the following functions:

1. 1 1/4" valve for Marine Toilet Discharge
2. 3/4" valve for Lavatory and Galley Sink Drain
3. 1/2" valve for Marine Toilet Water Intake
4. ~~1/2" valve for Optional Sea Water Galley Pump~~

B. ENGINE ROOM, 3 valves

- 1/2" BALL VALVE TO GENERATOR
1. 1/2" valve to port of engine for Sea Cooling Water

C. AFT HEAD, 3 valves

As with the forward head, all of these valves are located in the locker under the lavatory with the following functions.

1. 1 1/4" valve for Marine Toilet Discharge
2. 3/4" valve for Lavatory Drain AND GALLEY SINK
3. 1/2" valve for Marine Toilet Intake AND WASHDOWN PUMP

D. LAZERETTE, 1 valve

1. 2 1/2" valve on transom for Engine Exhaust

Please note that the OPTIONAL SPEED INDICATOR THRU-HULL is located in the main cabin bilge trap and is the only below water thru-hull without a ~~gate~~ valve.

III. PLUMBING

Closely related to the sea-cocks is the general plumbing system of your CAL/CRUISING 2-46. It is important to note that BOTH the SHOWER and ICE BOX drain into the bilge. The optional ~~PAR~~ Automatic Electric Bilge Pump is mounted in the engine room and exhausts out through the boot top on the port side. Note that BOTH the cockpit drains also discharge here and, since they are above the water line, are not equipped with gate valves. While on the subject of water in the bilge, you should also expect some water to seep in thru the Propeller Shaft Packing Gland. The best place to sound the bilge is in the engine room, below the engine gear box, where the pick up for the electric bilge pump is also found.

The Hot and Cold Pressure Water System is operated by a ~~PAR~~ self-priming pump that is equipped with an automatic low-water cut-off. This hot water system is operated either by running the diesel engine or on the 110 volt A.C. Shore Power. DO NOT TURN THIS SYSTEM ON UNLESS THERE IS WATER IN THE SYSTEM AS THE HEATING ELEMENT WILL BE BURNED OUT IF THE TANK IS EMPTY.

IV. ELECTRICAL SYSTEM

It is important to remember that your BASIC CIRCUIT BREAKER ELECTRICAL SYSTEM may be altered to conform to the electrical requirements of your additional optional accessories. In the event you make any electrical modifications to your CAL/CRUISING 2-46 be sure that you follow the WIRING DIAGRAM or consult a competent MARINE ELECTRICIAN. Boat wiring is considerably different from house wiring due to the marine environment and other conditions not associated with houses.

The Master Power Control Panel features integrated, simplified controls and circuit breaker protection to permit safe and efficient operation of your boat's electrical equipment. All panel components have been carefully selected for their proven performance in marine applications. The basic panel is of a metal alloy which is inherently corrosion resistant and is doubly protected to optimize resistance to the effects of the marine environment. A one year warranty will be validated by Marinetics Corporation, P.O. Box 1015, Newport Beach, Calif. 92663, if the enclosed warranty registration form is submitted within 30 days from the date of commissioning.

Electrical current is directed from two 12 volt, ^{220 AMP-HR} ~~70 amp~~ batteries ^{BANKS} through the Master Power Control Panel for engine starting, battery charging, and accessory loads.

Since the CAL/CRUISING 2-46 is designed to do considerable cruising and "living aboard" an optional 208 amp battery may be added to meet these additional electrical requirements. Panel selection of "BAT 1" or "BAT 2" determines which of the two battery sets will be utilized for engine starting and subsequent charging. Before activating the electrical system, use the Battery Condition Indicator to ascertain the condition of your batteries.

A. BATTERY CONDITION INDICATOR

This type of "indicator" or "meter" is technically referred to as a "Suppressed Zero Voltmeter". Note that calibrations do not start at zero but provide a full scale reading from 8 to 10 or 16 volts, depending on the meter. Below 8 to 10 volts the battery charge is so low that terminal voltage readings are meaningless. Approximate voltage range interpretations are as follows:

Engine Not	)	Below 11 - - - - -	Very low battery charge
Running or	)	11 - 12 - - - - -	Low battery charge
at Idle	)	12 - 13 - - - - -	Well charged battery

Engine	)	13 to 13½ - - - - -	Low charge rate
Running	)	13½ to 15½ - - - - -	Alternator & Voltage Regulator OK
Above Idle	)	15½ or above - - - - -	Voltage Regulator out of Adjustment

It is important for you to understand that the reading on the Battery Condition Indicator Dial is indexed from the TOGGLE TEST SWITCH POSITION REGARDLESS OF THE MASTER SWITCH POSITION unless it is in the "BOTH" position. When the Master Switch is in the "BOTH" position then the Battery Condition Indicator Dial will indicate BOTH BATTERY CONDITIONS NO MATTER WHICH WAY THE TOGGLE TEST SWITCH IS INDEXED. When the Master Switch is in either the "OFF", "BAT 1" or "BAT 2" positions, the meter will read the condition of the battery TOWARDS which you index the Toggle Test Switch. Note that panel and meter illumination is also provided by this same Toggle Test Switch.

Before activating the electrical system, check the condition of both battery sets and then select the STRONGEST BATTERY FOR ENGINE STARTING.

Index the Master Switch to the strong battery and then start your engine. It will usually require about 15 to 30 minutes of engine running time to bring the starting battery back up to charge. Check the ammeter to assure that charging is normal and when the selected starting battery has been restored it is placed on reserve by switching to the other battery so subsequent charging and accessory loads will be confined to this second battery. IT IS A GOOD PRACTICE TO BRING THE FIRST SELECTED BATTERY UP TO FULL CHARGE BEFORE PUTTING IT ON RESERVE AND CHANGING TO THE SECOND BATTERY.

Use the Master Switch in "BOTH" position ONLY for emergency starting when both batteries are low, or for "top off" charging when both batteries are near full charge. When both batteries are completely charged, transfer to either battery, keeping one battery always in reserve. This is especially important when you realize that there is no way to start your engine with a dead battery, like pushing a car when you're in the same predicament!!

NEVER MOVE THE MASTER SWITCH TO "OFF" WHILE THE ENGINE IS RUNNING OR THE ALTERNATOR DIODES MAY BE BURNED OUT.

B. OPERATION OF CIRCUIT BREAKER ELECTRICAL SYSTEM

Accessory loads may be selected as desired by indexing the appropriate panel breakers "ON" so current may flow from the switched battery to the accessory. A branch circuit overload will cause the accessory circuit breaker to "trip", i.e., the breaker will automatically open the circuit and its handle will flip to the "OFF" position. After correction of the fault, the breaker may be manually indexed "ON".

The RUNNING LIGHTS switch activates the red and green lensed lights forward and the white, 12 point stern light aft. The COMPASS LIGHT connection for the cockpit is also on this switch. When under sail at night, these are the only lights that should be shown, except for the shining of a white light on the sails if you feel there is a real need for greater recognition.

The WHITE STERN LIGHT takes a GE-68 type bulb while a GE-90 bulb should be used for the RED PORT LIGHT and a GE-94 bulb for the GREEN STARBOARD LIGHT. It is important that a stronger bulb be used with the darker lenses or visibility of the lights will be considerably less than the required one mile.

The BOW LIGHT switch is for the 20 point white light on the mast and is to be used in conjunction with the running lights WHEN UNDER POWER OR WHEN MOTOR SAILING. It also serves as a quick way of illuminating the jib at night to check its trim and in emergency cases when recognition is important. This light will use a GE-68 bulb if replacement is necessary.

The cabin lights have their own individual switches, but must be activated by the CABIN LIGHT switch on the Master Power Control Panel. If the cabin lights start getting dim, this is fair warning that the battery needs a charge or is getting old. Remember that you have an automotive type battery whose charge and water level must be checked at least once a month. If your boat is to be unused or stored for extended periods of time it is advisable to remove the battery (s) and store in a warm, dry location.

Periodically check all wires, connections, and terminals for loose connections which may cause electric sparks or power loss. This is especially important with the engine wires. When leaving the boat, FIRST TURN OFF THE ENGINE, THEN INDEX THE MASTER SWITCH TO OFF.

V. GALLEY

The Water System and Sink Drain have been covered earlier. Mention was also made that the 100 pound Ice Box drains into the bilge. ~~Operating instructions for the optional 3 burner Pressure Alcohol Stove come with the stove but a few additional points are important.~~

~~The 2 gallon Pressure Tank is in the locker just forward of the stove. When filling this tank, please observe the following BEFORE removing the stopper:~~

- ~~1. All burners are OFF.~~
- ~~2. Main alcohol shut-off valve on top of pressure tank is CLOSED.~~
- ~~3. Tank pressure is ZERO: Remove Stopper.~~
- ~~4. Fill the tank three-quarters full to allow for air pressure.~~
- ~~5. Replace stopper and screw down tight.~~
- ~~6. Experience has shown that 5 pounds of tank pressure is more than adequate and imposes less strain on the fittings than the recommended 10 pounds.~~

Following is a description of the optional mechanical refrigeration system installed by the factory.

MECHANICAL REFRIGERATION AND FREEZER (Mechanicold)

The mechanical refrigeration and freezer in this application is defined as a system run off the engine. The temperature is regulated manually, but there is a thermostat to prevent the refrigerator from becoming too cold. When either the refrigerator or freezer become warm, the engine is started and the system switched on and run until the freezer becomes cold. The running time will vary, depending on how long the temperature is maintained in the freezer.

The system is composed of the following components, which are also alphabetically indexed in the diagram in the Appendix.

- A. The compressor is a two cylinder automotive air conditioning type, mounted on the engine. The compressor pulley has a 12 volt electric clutch and is driven by two V belts off an auxillary pulley on the engine. Belt tension is regulated by adjusting the compressor or adjusting an idler pulley.
- B. The condenser is plumbed into the engine raw water cooling system before the water enters the engine (or the heat exchanger in the case of a fresh water cooled engine).

- C. The Receiver incorporates a built-in drier and a sight glass to permit checking the amount of refrigerant.
- D. The Expansion Valves control the flow of refrigerant into the Evaporators.
- E. The Evaporator consists of tubing coils in an eutetic solution such as "DOLE" cold plates.
- F. The Thermometers are mounted in a position so they can be easily observed and the element bulb in the box is about mid-height.
- G. A Switch to control the electric clutch may incorporate a red light to show when the switch is on.
- H. A High Pressure cut-off switch is provided to disconnect the electric clutch if the system pressure becomes too high, usually due to lack of cooling water.

Conventional refrigeration tubing and fittings are used with refrigerant hose between the compressor and the rest of the system to absorb vibration.

The operation of the system and the function of the components is as follows:

The refrigerant is piped to the expansion valves (D) from the receiver (C) as a liquid and the amount of flow is regulated by the temperature of its thermal bulb (F) attached to the outlet line of the evaporators. In the evaporators (E), the refrigerant picks up heat and is changed to a gas. The gas is piped to the compressor (A) where it is changed from a gas at low pressure to a gas at high pressure. This high pressure gas is piped to a condenser (B) where the heat is taken out by the engine raw water. This changes the gas to a liquid which is piped to the receiver (C) and the cycle continues. No adjustments are required, simply run the compressor (A) long enough to maintain the desired temperature.

The High Pressure cut-off switch (H) is an excellent safety device, as it prevents damage from excessive pressure due to lack of cooling water. This can be the result of a clogged inlet line, the thru hull water intake valve accidentally left closed, or being heeled over far enough for the water intake thru-hull to be out of the water.

The refrigerator temperature control can be adjusted to prevent too low a temperature in the box, which would freeze milk, vegetables, beer, etc. The Freezer can be run as long as desired without ill effects. This provides an excellent way of making ice cubes.

Additional information and replacement parts must be obtained from the original manufacturer: Boat Specialists, Inc., 2439 West Coast Highway, Newport Beach, Ca. 92660. Phone 714/645-0901.

VI. HEADS

Complete operating instructions for the Marine Toilets are on metal plates which may be mounted where desired. These plates along with additional instructions and parts lists, have been included.

DON'T FORGET THE EARLIER TANKAGE AND SEA COCK INSTRUCTIONS.

VII. ENGINE

Operating procedures are well covered in the enclosed manual, however several important points should be re-emphasized:

A. Turn the Main Battery Switch, located on the Master Power Control Panel, to the position you have designated as the engine battery. When the engine is IDLING you may switch from one battery position to the other for charging. NEVER pass through the "OFF" position or the Alternator Diodes will be burned out. The "BOTH" position is used to start the engine when both batteries are low. When the engine is not running, use one of the batteries for ship's gear, thus saving the second one for starting the engine.

B. Prior to starting the engine, please check the following:

1. The engine is fresh water cooled through a salt water heat exchanger. It is extremely important that the fresh water header tank be full to within an inch of the top and the cap on tight.

For technical reasons, the choice of lubricating oil is more important in a Diesel than in a gasoline engine. Check the dip stick on the engine's port side. The oil must be drained every 50 hours and replaced with 5 quarts of a "H.D." detergent oil. Also change the filter at this time. "RPM DELO Multi-Service SAE-30" is used at the factory, but other approved oils are listed on Page 37 of the manual. The transmission has one quart of "Chevron Automatic Transmission Fluid" which should be changed after the first 50 operating hours and every 500 hours thereafter.

C. Place Shift lever, port side of Control Unit in NEUTRAL or the vertical position.

D. Pull out instrument knob to activate instruments.

E. Water and Fuel ON? Exhaust Valve OPEN?

F. Push Starter Button. When engine starts:

1. Adjust Throttle, starboard lever on Control Unit, to Idling Speed of 700 RPM.
2. Check oil pressure - 40 pounds.
3. Cooling system is operating only if water is coming out of Exhaust Outlet in transom. Engine operating temperature is 170°F.
4. If water does not begin to flow out of the transom outlet within 3 or 4 minutes, STOP the engine and check water intake and exhaust gate valves.
5. If oil pressure is low, STOP the engine and check oil level.

6. The Propeller Shaft Packing Gland, located under the AFT Cabin Sole, should be damp. Tighten the nuts snug enough to eliminate any excess water drips.

G. Run engine at idle when shifting into forward or reverse. At 2100 RPM the CAL/CRUISING 2-46 will power around 8.2 knots using about 1.7 gallons of fuel per hour. In smooth water, higher speeds can be obtained with higher RPM's but fuel consumption will increase accordingly.

H. To Shut Down Engine:

1. Pull "KILL" Knob in instrument panel.
2. Push in Instrument Knob.
3. Close Fuel Valves and Gate Valves.

I. There are only two main reasons a Diesel engine will stop running. One, when the engine has run out of fuel or there is an air bubble in the fuel line; and two, if the engine has overheated causing the engine to "freeze". If the water level is OK, and there is sufficient fuel (and fuel shut-off valves are open) the fuel system will have to be "bled". This can be done without the assistance of a mechanic and is explained in the Appendix.

With the engine running, your CAL/CRUISING 2-46 is ready to get underway. We should pause for a moment and look about the deck thus becoming acquainted with the sailing gear.

VIII. SPARS, RIGGING AND HARDWARE

It is impossible to fully guarantee the mast of your CAL/CRUISING 2-46 under our current warranty program. Rigging as well as tuning becomes all important when setting up the mast because of the light weight section we use. A knowledgeable person should oversee the rigging and tuning so as to eliminate the possibility of an eccentric load which might occur with an improperly loaded shroud. Special attention should be given to the initial stretch of the uppers and a further gradual stretch of the wire over the first few hard sails.

A. MAST TUNE

The mast should be set straight athwart-ships in the boat and have a slight rake aft. A straight mast can best be obtained by turnbuckle adjustment while sailing to windward in a 5 to 10 mph breeze. The head of the mast should NOT "hook" to windward. If not straight, it would be more desirable to have the head "fall-off" slightly to leeward. This should give the mast a smooth, even curve from head to deck. Sighting along the back of the mast on each tack, from deck level, will give a comparison and indicate the necessary adjustments.

For normal cruising conditions, we recommend a "firm" rig. Thus a dock-side starting point would have the headstay, backstay, mid-stay and uppers tight, the intermediates not so tight and lowers fairly firm. Now the backstay may be made slightly tighter to "hook" the top of the mast aft. One

should be able to stand facing the mast, reach out and pull on any stay and see the mast move in that direction. Try to get tension on both stays equal with about 1/2" to 2" of play on the uppers, 2" to 3" on the lowers and about 2" on the intermediates. The intermediates are set last and serve to balance the pull of the uppers and lowers.

A description of all standing and running rigging, if replacement is necessary, can be found in the Appendix. Following are some maintenance tips which should be of value.

B. SPARS

The finish of natural aluminum is protected against corrosion by a thin, transparent film of aluminum oxide. Dust, dirt, smoke, salt and traffic fumes will adhere to this film, making the surface dull and unsightly. Coating the new surfaces with a good paste wax like Vista or Simonize, will help protect the aluminum oxide from foreign matter. If the surface has become tarnished, any high grade cleaner - wax - polish (Collinite #34 or #38 for example) will restore the original sheen. Heavier pitting can be removed by wet-sanding with #600 paper prior to polishing and waxing. You need not worry about sanding, cleaning or polishing destroying the aluminum oxide film as it reforms or "heals" immediately.

If spars are black anodized, hose down portions subject to salt water spray after each sail.

The spreaders are of ~~ALUMINUM~~ spruce and have been well varnished. Because of sail chafe and weather, they should be sanded and re-varnished every six months and the tips re-taped.

C. RIGGING

Clean rigging means clean sails. A quick trip aloft with damp rags takes care of this problem. While aloft, check the entire rig for loose screws, nuts, bolts, cotter pins and chafe which may have resulted from hard sailing. Periodic inspection of the rig from aloft is your best insurance against rigging and spar failure. Keeping halyards tied away from the mast stops the annoying dockside clanking and saves the mast finish.

Salt water will gradually stiffen dacron line. Hosing with fresh water or soaking in warm soapy water will make the line soft and flexible again. Keep coiled and stowed in a dry spot below.

D. HARDWARE

Many materials are used, all of which clean well with fresh water and a chamois. Winches must be kept clean and well oiled (Lubriplate is excellent unless the manufacturer recommends otherwise) as do all turnbuckles, track slides, sheaves and shackles. The chrome and stainless steel brighten up with the chamois while a good automotive chrome cleaner or mild kitchen abrasive like Comet takes care of the tarnished spots.

Keep all gear lubricated and in good working condition. Remember, the less an item is used, a turnbuckle, for example, the more apt it is to freeze-up.

IX. SAILS

The mainsail, with battens removed and outhaul slacked, is properly furled on the boom, under a cover. Headsails have been stripped of sheets, properly folded and are bagged below ready to be brought on deck. The dacron and nylon sails do get wet and become caked with salt. When they do, hose them off with fresh water and dry thoroughly by hoisting them at the dock on a still, warm day.

Take care of your sails with periodic checks, especially spinnakers, for small tears and chafe. Hoisting and lowering sails, except spinnakers, while head-to-wind is good practice and easier on the sails.

X. FIBERGLASS SURFACES

Periodic application of Tide and fresh, warm water with deck brush and sponge followed by a good hosing and chamois will do the cleaning job. If the gloss dulls or fades, wax the smooth surfaces with Vista or Meguiar's Mirror Glaze paste wax. Surfaces that have started to oxidize can be brought back with Meguiar's Fiberglass Boat Cleaner or DuPont White #7 Polishing Compound. Wax the hull with a power buffer and paste wax once a year. The non-skid surfaces can be brought back to life with a lather of Tide or Mr. Clean. Be sure to follow up with lots of fresh water to avoid streaks on the topsides.

Avoid any metal filings on the fiberglass surfaces as they will leave rust spots. These spots can be removed with oxalic acid or Teak-Brite but first test a small area against bleaching out the surface color.

XI. WOOD SURFACES

All of the exterior is teak which is weather resistant due to its natural oils. Teak does fade to a dull gray, which, if objectionable, can be scrubbed clean with "Teak-Brite." Teak's natural color and texture can be preserved by applications of Weldwood's "Woodlife" or similar sealers. Teak, when well varnished, produces the ultimate in a yacht wood finish but requires constant loving care!

All below deck teak surfaces are finished with a sealer. Treat all the materials used below deck as a home interior. Air is a wonderful cleaner: bring the vacuum cleaner aboard and always keep the boat well ventilated, especially the bilge and lockers.

Jensen Marine's interest in both customer and product continues long after you have commissioned your CAL/CRUISING 2-46. Within limits of our specifications, the company's Parts Department is ready to serve your nearest dealer quickly and efficiently. All replacement parts or accessories are delivered through your dealer. He must have detailed information from you to be certain we send the parts requested.

Additional sailing and maintenance tips can be found in various boating publications. Yachting's Annual Maintenance Issue in April is an excellent starting point.

This brings us to the end of our "Sailing Check-List" and leaves only the securing of your CAL/CRUISING 2-46 . If we ran the list in reverse, adding only one item, your CAL/CRUISING 2-46 will be ready for the next sail. This one important item is a GOOD HOSING. Nothing keeps a boat better than fresh water and the chamois. Use plenty of pressure, especially in the cockpit scuppers. non-skid areas and metal surfaces. Turn to with sponge and chamois and you will be rewarded with a sharp, sparkling yacht that is only matched by its comparable performance.

Good Luck and Happy Sailing

JENSEN MARINE

STARTING THE ENGINE (D)

Preparation for Starting.

Check the header tank water level when fitted.

Check the engine sump oil level.

See that there is fuel oil in the tank.

Check that the starter battery is fully charged and that all electrical connections are properly made and all circuits are in order.

Check that sea cock is open, when fitted.

Lubricating Oil.

During the normal winter period, a lubricating oil of S.A.E. 10W viscosity of high detergency conforming to MIL/L/2104A or DEF/2101B specification should be used. For approved oils, see appendix.

Priming the Fuel System.

In the case of a new engine or an engine which has been standing idle for any length of time, it is important that the fuel system be "bled." A typical fuel system is shown in Fig. D.1.

To prime the system, proceed as follows:—

1. Unscrew the air vent screw (A) on the top of the fuel filter housing.

2. Slacken one of the two hydraulic head locking screws (B) on the side of the pump body.

3. Unscrew, by two or three turns, the vent plug (C) on the top of the filter cover (not the return pipe to the tank).

4. Operate the priming lever of the feed pump, and when fuel, free from air bubbles, issues from each

venting point, tighten the screws in the following order:—

1. Filter cover vent screw (C).
2. Head locking screw (B).
3. Governor vent screw (A).

Slacken the pipe union nut (D) at the pump inlet, operate the priming device and retighten when oil, free from air bubbles, issues from around the threads.

Slacken the unions at the atomiser ends of two of the high pressure pipes.

Set the throttle at the fully open position and ensure that the "stop" control is in the "run" position.

Turn the engine until fuel oil, free from air bubbles, issues from both fuel pipes.

Tighten the unions on the fuel pipes, and the engine is ready for starting.

It should be noted that if the cam on the cam-shaft driving the fuel lift pump is on maximum lift, then it will not be possible to operate the hand primer. If such a condition arises, then the engine should be turned until the hand primer can be operated.

Starting the Engine.

If the engine is warm and has only been stopped for a little while, place the throttle in the fully open position and engage the starter motor by turning the starter switch in a clockwise direction. (See Fig. D.2).

If the battery is well up, enough to turn the starter motor quickly, the engine should start.

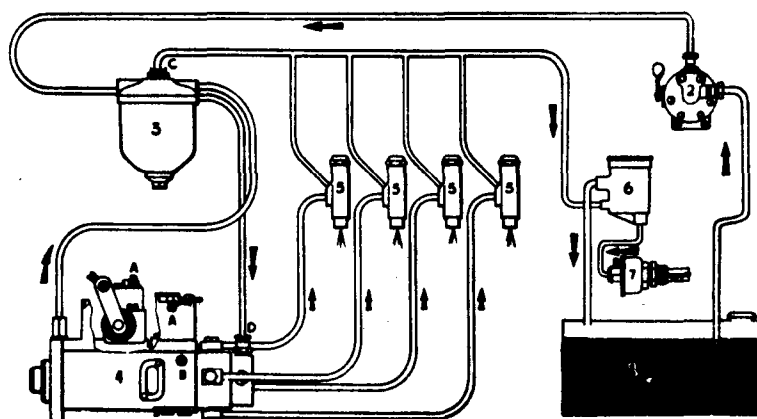


Fig. D.1.

1. Fuel Tank.
2. Fuel Lift Pump.
3. Fuel Filter.
4. Fuel Pump.
5. Atomisers.
6. Cold Start Fuel Reservoir.
7. Cold Start Aid.

HULL #75

CAL 2-46
STANDING RIGGING
SLOOP RIG

HULLS #1 - 4

1 Headstay	5/16"	1 x 19 x 48' 1 1/2" M.E. & M.E.
1 Backstay	"	1 x 19 x 52' 4" M.E. & M.E.
2 Main upper	"	1 x 19 x 22' 5 1/2" M.E. & M.E.
2 Main lower	3/8"	1 x 19 x 22' 9 1/2" M.E. & M.E.
2 Lower	"	1 x 19 x 22' 1 1/2" M.E. & M.E.
1 Midstay	7/32"	1 x 19 x 22' 7 1/2" M.E. & Fork
2 Intermediate	"	1 x 19 x 10' 6 1/2" M.E. & M.E.

HULLS #6 and up

1 Headstay	5/16"	1 x 19 x 48' 9 1/2" M.E. & 5/8" RH Stud
1 Backstay	"	1 x 19 x 53' 0" M.E. & 5/8" RH Stud
2 Main upper	"	1 x 19 x 22' 5 1/2" M.E. & M.E.
2 Main lower	3/8"	1 x 19 x 23' 5 1/2" M.E. & 5/8" RH Stud
2 Lower	"	1 x 19 x 22' 9 1/2" M.E. & 5/8" RH Stud
1 Midstay	7/32"	1 x 19 x 23' 2" Fork & 3/8" RH Stud
2 Intermediates	"	1 x 19 x 10' 11" M.E. & 3/8" RH Stud

CAL 2-46
STANDING RIGGING
KETCH RIG

HULLS #1 - 4

1 Headstay	5/16"	1 x 19 x 48' 1 1/2" M.E. & M.E.
1 Backstay	"	1 x 19 x 50' 3" M.E. & M.E.
2 Main upper	"	1 x 19 x 22' 5 1/2" M.E. & M.E.
2 Main Lower	3/8"	1 x 19 x 22' 9 1/2" M.E. & M.E.
2 Lower	"	1 x 19 x 22' 1 1/2" M.E. & M.E.
1 Midstay	7/32"	1 x 19 x 21' 3 1/2" M.E. & Fork
2 Intermediates	"	1 x 19 x 10' 6 1/2" M.E. & M.E.
2 Mizzen forestay	"	1 x 19 x 20' 4 1/2" M.E. & M.E.
2 Mizzen upper	"	1 x 19 x 28' 11 1/2" M.E. & M.E.
2 Mizzen lowers	"	1 x 19 x 13' 1 1/2" M.E. & M.E.
1 Mizzen jumper	5/32"	1 x 19 x 14' 11 1/2" M.E. & 5/16" RH Stud
1 Mizzen backstay	7/32"	1 x 19 x 30' 6" M.E. & 3/8" RH Stud

CAL 2-46
STANDING RIGGING
KETCH RIG

HULLS #6 and up

1 Headstay	5/16"	1 x 19 x 48' 9 1/2" M.E. & 5/8" RH Stud	MARINE EYE
1 Backstay	"	1 x 19 x 50' 11" M.E. & 5/8" RH Stud	
2 Main upper	"	1 x 19 x 22' 5 1/2" M.E. & M.E.	
2 Main lower	3/8"	1 x 19 x 23' 5 1/2" M.E. & 5/8" RH Stud	
4 2 Lower	"	1 x 19 x 22' 9 1/2" M.E. & 5/8" RH Stud	
1 Midstay	7/32"	1 x 19 x 23' 2" Fork & 3/8" RH Stud	
2 Intermediates	"	1 x 19 x 10' 11" M.E. & 3/8" RH Stud	
2 Mizzen forestay	"	1 x 19 x 20' 11" M.E. & 3/8" RH Stud	
2 Mizzen upper	"	1 x 19 x 29' 6" M.E. & 3/8" RH Stud	
2 Mizzen lower	"	1 x 19 x 13' 8" M.E. & 3/8" RH Stud	
1 Mizzen jumper	5/32"	1 x 19 x 14' 11 1/2" M.E. & 5/16" RH Stud	
1 Mizzen backstay	7/32"	1 x 19 x 30' 6" M.E. & 3/8" RH Stud	

CAL 2-46
RUNNING RIGGING

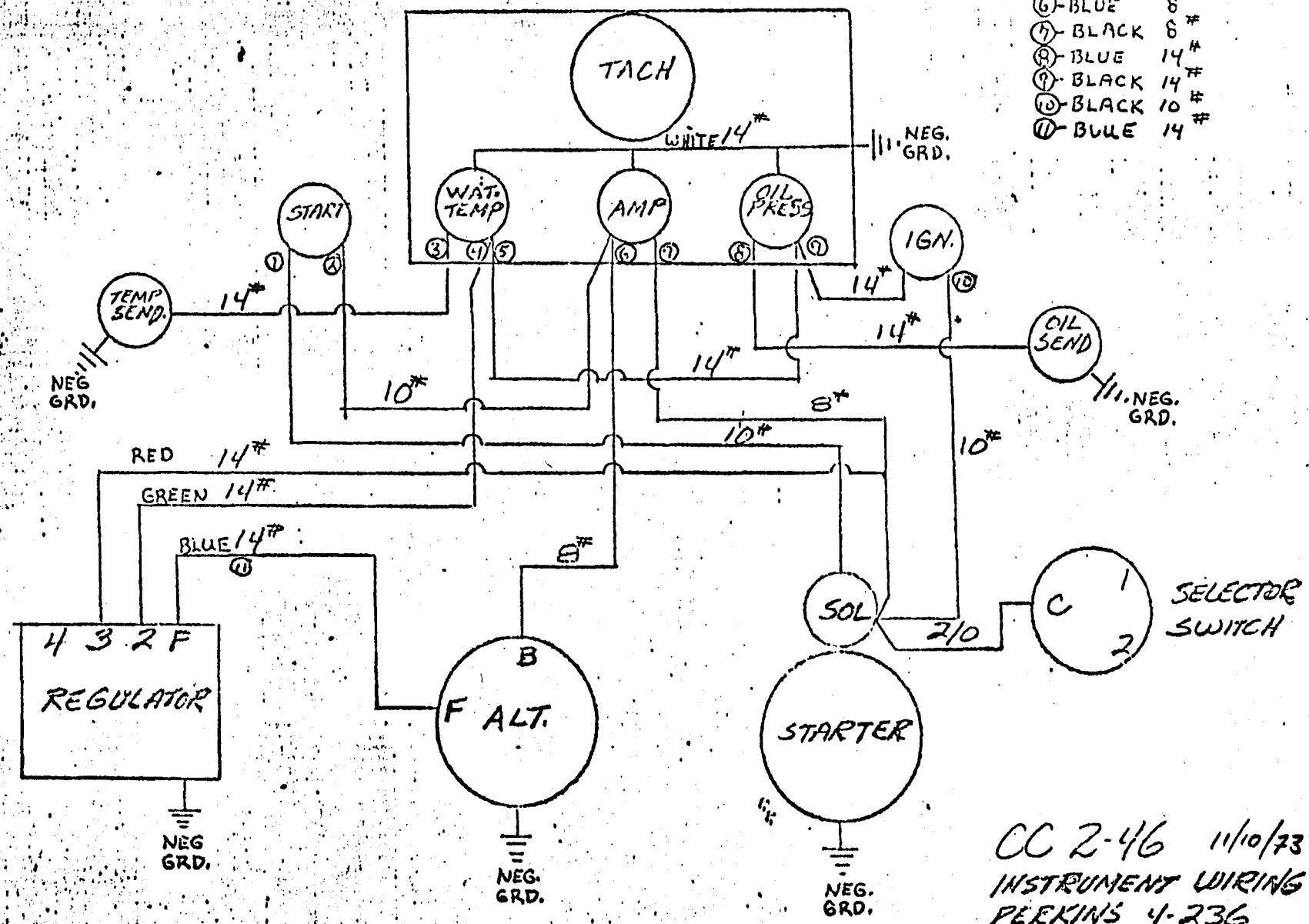
1 Mainsheet	1/2" x 70'	Dacron
1 Downhaul	3/8" x 10'	Dacron
2 Genoa sheet	1/2" x 62'	Dacron
1 Main halyard	3/16"	7 x 19 x 94' w/ 3/8" HB shackle
1 Jib halyard (std.)	"	7 x 19 x 48' w/ L228 shackle
(RF Jib)	"	7 x 19 x 49' 6" with 7/16" x 94' dac. rope/wire splice tail
1 Jib halyard tail (std)	7/16" x 50'	Dacron
1 Outhaul	1/8" SS wire & 3/8"	Dacron
1 Mizzen halyard	5/32"	7 x 19 x 29' 5" thimble & headboard shackle
1 boom lift, mizzen	1/8"	1 x 19 plas. x 26'
1 boom lift tail, miz.	5/16" x 10'	dacron

CAL 2-46
RUNNING RIGGING

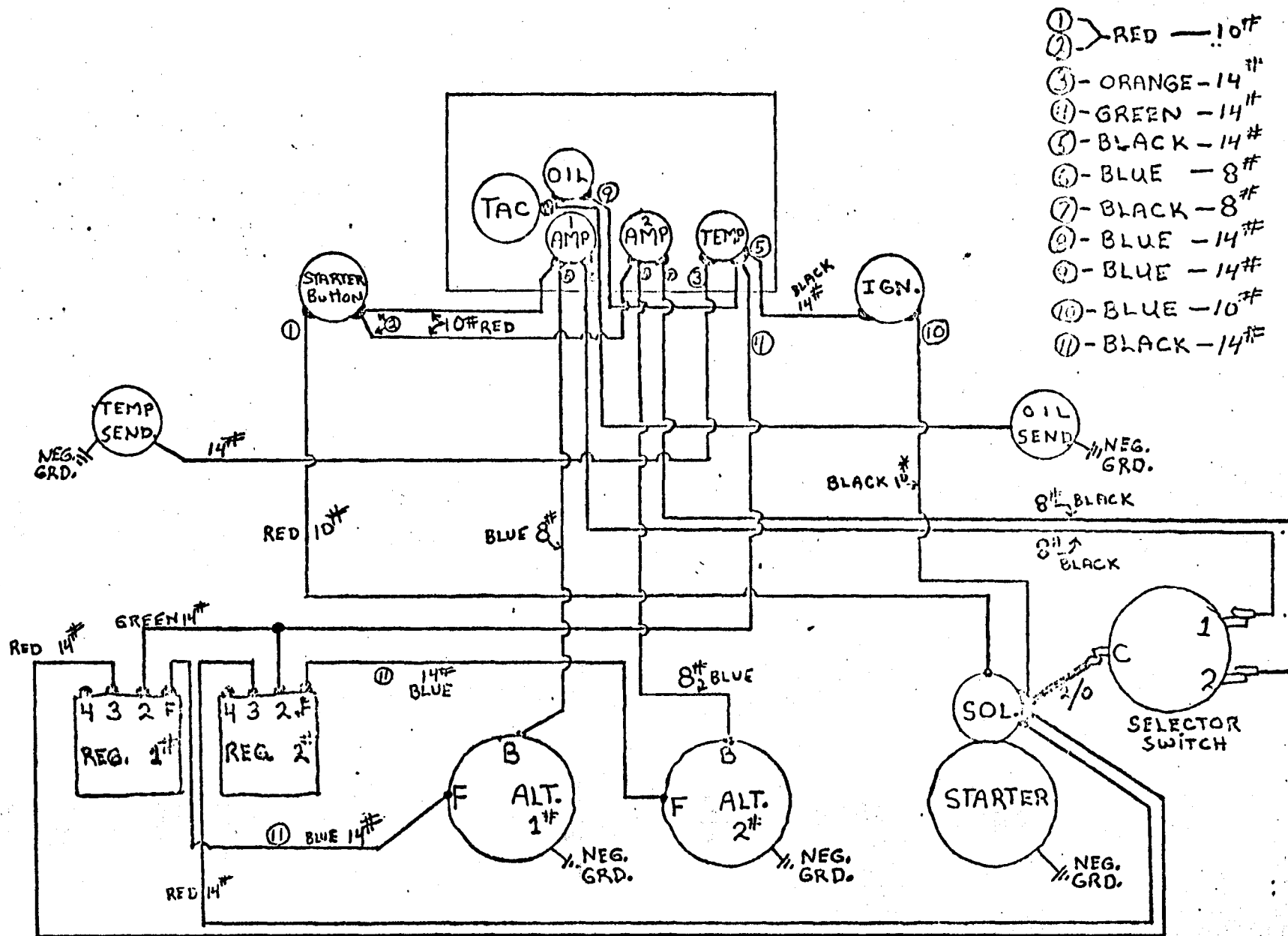
1 Boom lift, main	3/16" 1 x 19 plas. x 42' (S. & K)
1 Boom lift tail, main	3/8" x 15' Dacron
1 Mizzen staysail hal (optional)	3/8" x 65' Dac w/ 2 1/2" snap shackle
1 Mizzen sheet	7/16" x 42' Dacron

*Reuder Stock - lubricate top bearing through
holes at top of box in aft cabin -
2 grease fittings
and at stuffing box under berth*

- ①-RED 10"
- ②-RED 10 1/4"
- ③-ORANGE 14 1/4"
- ④-GREEN 14 1/4"
- ⑤-BLACK 14 1/4"
- ⑥-BLUE 8 1/4"
- ⑦-BLACK 8 1/4"
- ⑧-BLUE 14 1/4"
- ⑨-BLACK 14 1/4"
- ⑩-BLACK 10 1/4"
- ⑪-BLUE 14"



CC 2-46 11/10/73
 INSTRUMENT WIRING
 PERKINS 4-236



CC 2-46

INSTRUMENT WIRING
 DUAL ALTERNATOR 54/5.