



# **OWNER'S GUIDE**

## **IMPORTANT PLEASE READ**

***Jensen marine***

235 Fischer Street / Costa Mesa, California / (714) 540-3440

BANCOO PUNTA S WIDE WORLD OF BOATING JENSEN/LUHRS/DAY/STARCRRAFT/ULRICHSEN

## OWNER'S GUIDE - CAL 2-30

Welcome into the fast-growing owner's group of Jensen Fiberglass Yachts! Your CAL 2-30 has been carefully engineered and built to require a minimum of maintenance and a maximum of sailing pleasure. To insure this, the following is a description of the operational checks and tasks normally dealt with by the owner to maintain his CAL 2-30.

Let's become acquainted with these various operations by preparing your CAL 2-30 for a day's sail and discussing the maintenance routine which you should follow. It is good practice to close the Fuel Shut-Off Valve and all Sea Cocks, except two, 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 20 gallon regular gas tank is located under the cockpit sole fill cap and vents aft on the starboard winch island. The Fuel Shut-off Valve is on the tank's forward starboard side and is reached via an access port in the starboard quarter berth. When the handle is parallel to the fuel line it is OPEN, at right angles, it is CLOSED. When not operating the engine, this valve should remain CLOSED. A partially filled gas tank can cause water condensation, a major cause of sticky valves. To avoid this, we recommend keeping the tank full and the carburetor bowl clean.

A 25 gallon fresh water tank is under the forward double berth. The tank fill, a bronze plug with a 1/2 inch square recess, is on the aft end and the vent is in the forepeak.

### II. SEA COCKS

All thru-hull fittings, except the optional speed indicator, are equipped with gate valves. To OPEN, turn counter-clockwise, to CLOSE, turn clockwise. Following is the location and function of these valves, starting with the two which remain OPEN at all times.

#### A. COCKPIT SCUPPERS, port and starboard

These two 1" valves are aft in the lazarette and must remain open at all times to keep the cockpit dry. Both valves can be reached via the cockpit seat hatches. Once a month, close and re-open these valves to keep them in working order. At this time, check the packing glands on ALL gate valves to avoid water seepage.

B. ENGINE COOLING WATER INTAKE

Best access to this 1/2" valve is from the port quarter berth. While there, check the following:

1. Propeller Shaft Packing Gland should be damp. Tighten the nuts snug enough to eliminate any excessive water drips.
2. Keep the Engine Oil Level between the #1 and #2 marks on the Bayonet Oil gauge. Oil should be changed every forty to fifty operating hours with three to four quarts of SAE #30 "H.D." detergent oil. Havoline is recommended by the manufacturer.
3. Distributor Oil Cup gets a couple drops of light oil and the Water Pump Grease Cap a turn periodically.
4. The carburetor bowl may have to be filled using the hand primer on the fuel pump.

C. GALLEY SINK AND LAVATORY DRAINS

Both 3/4" valves are located directly under their respective drains. These valves should be kept closed while sailing as excessive heel will fill the sinks and splash water into the interior.

D. MARINE TOILET WATER INTAKE AND DISCHARGES

The 3/4" gate valve for Water Intake is located directly under the Galley Sink while the 1-1/4" gate valve for Discharge is located forward of the bowl. They may be kept open while sailing with no ill effects assuming the internal "joker" valve is not held open by refuse.

Check the bilge for water via the cabin sole hatch at the base of the companionway steps. Our fiberglass hull is water tight, but the Ice Box drains into the bilge! Also there could be some seepage from the thru-hull fittings and the propeller shaft packing gland. The optional Hand Bilge Pump is installed under the aft setee seat.

III. ENGINE

Complete inspectional access to the engine may be gained by lifting the companionway steps and removing the bulk-head. Operation procedures are well covered in the enclosed manual. Several important points should be re-emphasized.

- A. Turn the Main Battery Switch, located in the starboard quarter berth, to the position you have designated as the engine battery. When the engine is running, NEVER pass through the "OFF" position to change from one battery to another for charging or the Alternator Diodes will be burned out. Switching from one battery to the other should only be done with the engine IDLING. If both batteries are of equal charge, keep selector switch in "ALL" position. This position is also used to start the engine when both batteries are low. When not operating the engine, use one battery for ship's gear, thus saving the second battery for starting the engine.
- B. Run the Blower five minutes prior to starting the engine. Switch is on the main instrument panel in the cockpit while the blower discharges out thru the clam shell on the starboard deck, aft.
- C. Place Shift Lever into the large diameter ring of the Morse Control Head on the port cockpit seat riser. Start engine with lever in Vertical or NEUTRAL position. Lever FORWARD is FORWARD, AFT is REVERSE.
- D. Place Throttle Lever into the Notched Control Head and advance about 45° to start engine. Note that the throttle may be adjusted without the lever by grasping the notched control head and turning to the desired setting. Additional information on the Morse Control Unit may be obtained from the manufacturer.
- E. Water and fuel lines OPEN?
- H. Pull out the choke and turn on the Ignition Key.  
When engine starts:
  - 1. Gradually push in Choke.
  - 2. Adjust throttle to idling speed.
  - 3. Check Oil Pressure: 30 to 35 pounds on a cold engine.
  - 4. Cooling System is operating only if water is coming out of Exhaust Outlet under the transom, port side.
  - 5. If oil pressure is low, STOP the engine and check oil level.
  - 6. If water does not begin to flow out the transom outlet within 3 or 4 minutes, STOP the engine and check water intake valve.
  - 7. Turn off Blower.

## CAL 2-30

- I. Run engine at Idle when shifting into forward or reverse. If equipped with a Martec Prop, (Right Hand, 12" x 6 x 1") please follow the instructions in the Appendix. At half throttle the CAL 2-30 will power around 6 knots using about one gallon of fuel per hour. In smooth water, higher speeds can be obtained with higher RPM's but fuel consumption will increase accordingly.
- J. To Shut Down engine:
  1. Turn Off Ignition Switch.
  2. Close Fuel Shut-Off Valve and Cooling Water Intake Gate Valve.
  3. Mark and align Propeller Shaft for Sailing Position and shift into FORWARD to lock. With a standard two blade solid or feathering prop, the blades should be vertical. With a folding prop, the blades should be horizontal.

## IV. GALLEY

The Water System and Sink Drain have been covered earlier. Mention was also made that the 50 pound Ice Box drains into the bilge. A 2 or 3 burner Pressure Alcohol Stove is the normal optional installation. Operating instructions come with the stove but a few additional points on stove operation are important.

The optional 2 gallon pressure tank is located under the galley sink. 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.

## V. HEAD

To Flush the Marine Toilet swing the valve OUTBOARD to

OPEN and pump. To dry bowl, swing the valve INBOARD to CLOSE and pump. An instruction sheet is enclosed but additional information and replacement parts can be obtained from the manufacturer.

Don't forget the earlier Gate Valve instructions!

## VI. ELECTRICAL SYSTEM

A 12 volt battery, with Master Switch and 15 amp fuses stores power for the electrical system. The Battery Compartment is in the engine compartment, forward, on the starboard side. Factory installed batteries are an automotive type whose water level and charge must be checked. Since the engine is equipped with a 30 amp alternator, the Master Switch gets special attention and is covered under Step "A" of the engine section.

- A. All Exterior Light Switches are in the cockpit instrument panel. The Fuse Panel is behind the Master Switch. All Cabin lights are individually switched but have their fuses here. Dim light indicate low batteries: Keep batteries well charged to avoid being "in the dark!"
- B. Double outlets for the optional 110 volt Shore Power are in the galley and head. The Breaker Switches are on the engine compartment bulkhead. The optional Speed Indicator thru-hull is under the center cabin sole inspection plate. The optional Depth Indicator Box is located under the starboard quarter berth.

With the engine running, you CAL 2-30 is ready to get underway. We should pause for a moment and look about the deck and thus become acquainted with the sailing gear.

## VII. SPARS, RIGGING AND HARDWARE

Our masts are built to withstand any normal usage but improper tuning or handling can cause problems. Therefore it is impossible to fully guarantee the mast of your CAL 2-30 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 outings.

A. MAST TUNE

The mast should be set straight athwartships 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 "loose" rig. Thus a dock-side starting point would have the headstay, backstay and uppers just firm, with the lowers fairly loose. The aft lowers on this flexible rig govern the amount of fore and aft bend that the mast will take, particularly in the lower half. Try to get tension on both of these stays equal with about 2" to 3" of play. The forward lowers will be a little tighter, with 1-1/2" of play while the uppers will be tighter with 1/2" to 1-1/2" of play. Work from this point but don't overbend.

When racing, the backstay should be tightened to compensate for the additional forward loading of the genoa. The backstay may also be made tighter to help induce mast bend allowed by the slackness of the aft lowers. Even with the aft lowers tight, the top half of the mast will bend aft when the backstay is tightened. As the wind strength increases, the mainsail will usually set better if the mast has an even, not overly pronounced, bend from head to deck. As much as 5" of bend may be needed to flatten the mainsail in strong wind conditions. This "controlled bending" can be easily accomplished by an optional adjustable turnbuckle handle.

At the conclusion of the race, it is best to "slack-off" the amount you "took-up" on the backstay turnbuckle. This avoids setting up unnecessary strains on the hull and rig. Under no circumstances should any of the rigging be set up "bar-tight." One should be able to stand facing the mast, reach out and pull on any stay and see the mast move in that direction.

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.

Painted spars may require a touch-up in areas of chafe. Use the same or compatible paints for this job. Epoxy is applied at the factory. "Rust-Oleum", in spray cans, is an excellent touch-up paint.

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

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. Spreader tips well taped? 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). This also applies to 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.

#### VIII. SAILS

The mainsail, with battens removed and out haul 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 can 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.

#### VII. FIBERGLASS SURFACES

Periodic application of Tide and fresh, warm water with deck brush and spong 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 Megular'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 fillings on the fiberglass surfaces as they will leave rust spots. These spots can be removed with oxcolic acid or Teak-Brite but first test a small area against bleaching out the surface color.

Consult the enclosed booklet for touch-up work and repair of minor scars or breaks.

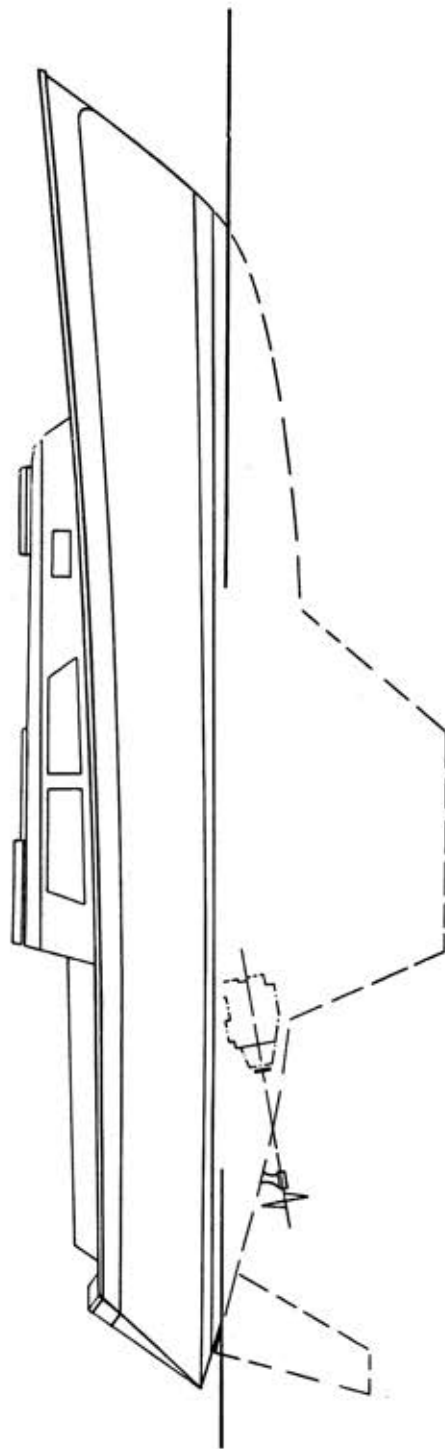
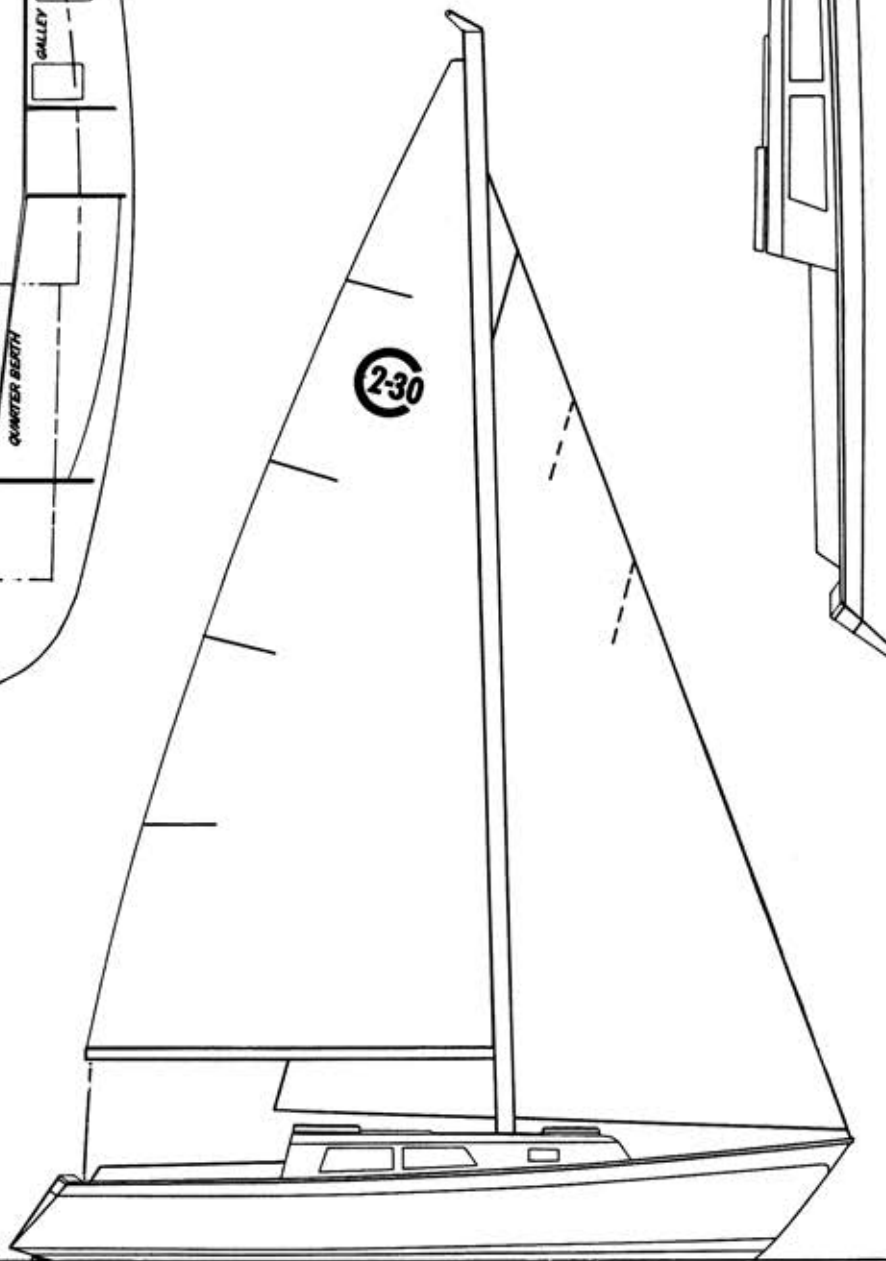
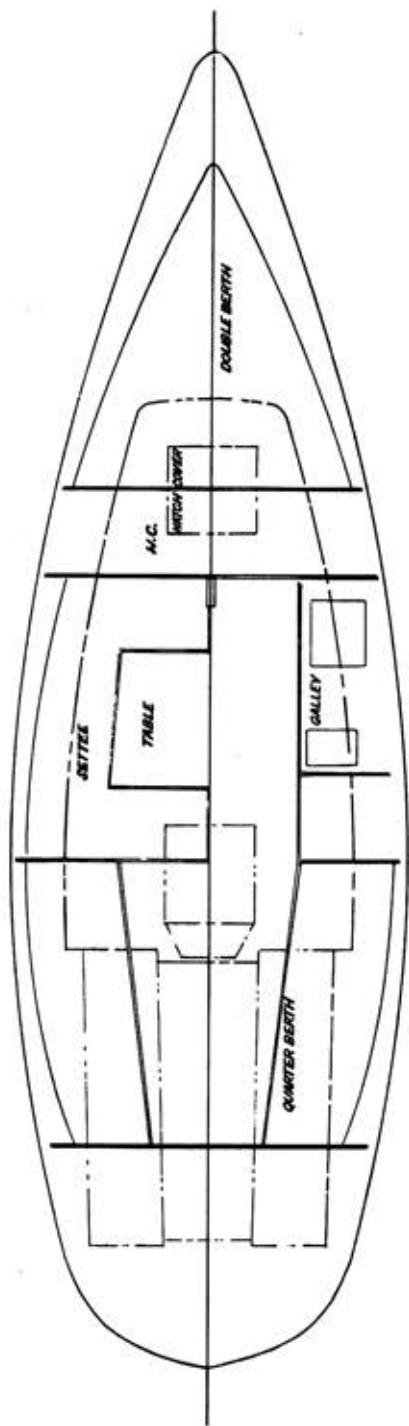
#### IX. WOOD SURFACES

The tiller, along with the spreaders, has been well covered with a high grade marine varnish at the factory. In order to maintain the original high luster and protect the wood, sanding and re-varnishing will be necessary when the gloss fades or bare spots appear. The rest of the exterior wood 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.

# CAL 2-30

## DIMENSIONS

L.O.A.....30'2"  
L.W.L.....25'0"  
Beam.....9'0"  
Draft.....5'0"  
Sa. Area.....480 sq. ft.  
Displ.....10,300 lbs.  
Ballast.....4,500 lbs.



CAL 2-30

STANDING RIGGING

- 1- Headstay - 9/32" 1x19 s/s x 37', Marine Eye & 1/2" Thd. Shank
- 1- Backstay - 7/32" 1x19 s/s x 44' 1-1/4", Marine Eye & 3/8" Thd. Shank
- 1- Boom Lift - 1/8" 7x19 s/s x 2'0", Nico Sleeve & Snap Hook @ 36' 3"  
OR OPTIONAL
- Adj. Backstay- 7/32" 1x19 s/s x 43' 10-1/2", Marine Eye top & 3/8"  
Sherman-Johnson Thd. Shank with handle bottom
- Boom Lift - 1/8" 7x19 s/s x 2'0" Nico Sleeve & Snap Hook @ 36' 3"
- 2- Uppers - 7/32" 1x19 s/s x 36' 6-1/4", Fork & 3/8" Thd. Shank
- 2- Aft Lowers - 3/16" 1x19 s/s x 18' 9", Fork & 3/8" Thd. Shank
- 2- Fwd. Lowers - 3/16" 1x19 s/s x 18' 6-1/4" Fork & 3/8" Thd. Shank
- 2- Life Lines - 1/8" 1x19 s/s Plastic Coat x 27' 4", 1/4" Thd. Shank  
& Fork with Pelican Hook

NOTE:

- 1) All dimensions are center eye to eye or end of Thd. Shank.
- 2) On Insulated Backstays, keep insulators as far apart as possible and the lower insulator above the Boom Lift Nico Sleeve.

RUNNING RIGGING

- 1- Main Halyard - All Wire - 3/32" 7x19 s/s x 78' Wire Rope
- 1- Main Halyard - Standard - 3/32" 7x19 s/s x 38' Wire Rope
- 1- Jib Halyard - Standard - 3/16" 7x19 s/s x 37' 6"  
For cabin top = 48', one end open.
- 1- Main Halyard Tail - Standard - 3/8" x 41' Dacron Yacht Braid
- 1- Jib Halyard Tail - Standard - 3/8" x 38' Dacron Yacht Braid
- 1- Main Sheet - Standard - 3/8" x 80' Dacron Yacht Braid
- 2- Jib Sheets - Standard - 7/16" x 45' Dacron Yacht Braid
- 1- Down Haul - Standard - 5/16" x 6' Dacron Yacht Braid
- 1- Out Haul - Standard - 1/8" x 4' Dacron Yacht Braid

SPINNAKER GEAR

- 1- Spinnaker Halyard - 3/8" x 87' Dacron Yacht Braid
- 2- Spinnaker Sheets - 7/16" x 45' Dacron Yacht Braid
- 1- Topping Lift - 5/16" x 62' Dacron Yacht Braid
- 1- Fore Guy - 5/16" x 40' Dacron Yacht Braid

REEFING GEAR ON BOOM

- 1- Clew Pennant - 3/8" x 30' Dacron Yacht Braid
- 1- Tack Pennant - 5/16" x 17' Dacron Yacht Braid

MARTEC LOW DRAG PROPELLER  
FOR SAILBOATS

PARTS LIST

Blades	(2)
Hub	(1)
Cylindrical Nut	(1)
Monel Pivot Pin	(1)
Key	(1)
Monel Cotters	(4)

INSTALLATION INSTRUCTIONS

1. Assembly hub, key, and nut on shaft.
2. Tighten nut. Line up cotter holes thru hub and nut.
3. Install monel cotters. Spread cotters inside nut.
4. Line up holes in hub and blades carefully.  
NOTE: One blade, one end of pivot pin, and one side of hub are marked ("I") and should be assembled with all three marks on the same side to maintain fit and balance.
5. Install monel pivot pin and lock with two manual cotters.
6. Oil or grease blade bearings. (Required at original installation only)
7. Mark shaft so sailing position can be determined from inside boat. Sailing position in when pin is vertical.

OPERATING INSTRUCTIONS

FORWARD, BOAT STOPPED: Engage at idling RPMS only. Damage could result if engaged much over 1000 RPM.

FORWARD, BOAT MOVING FORWARD: Engage at RPM corresponding to boat's forward speed.

REVERSE: Increase throttle as required when using reverse under headway. (Stopping)

RACING: Rotate shaft manually to sailing position.

Otherwise, operation is the same as for a solid propeller.

MAINTENANCE INSTRUCTIONS

Inspect pivot pin cotters at each haulout. Replace if indicated. Use only Monel.

3-1/c #14

