OWNER'S GUIDE

Jensen marine
235 Fischer Street / Costa Mesa, California / (714) 540-3440
BANGOR PUNTA'S WIDE WORLD OF BOATING" JENSEN/LUHRS/O'DAY/STARCRAFT/ULRICHSEN

IMPORTANT
PLEASE READ

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.

OWNER'S GUIDE - CAL-43

Welcome into the fast-growing owner's group of Jensen Fiberglass Yachts! Your CAL-43 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-43.

Let's become acquainted with these various operations by preparing a CAL-43 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 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

The 40 gallon fuel tank is mounted under the cockpit sole; the vent leads to the port winch island on the aft side. Access to the Fuel Shut-off Valve is from 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.

Two 35 gallon fresh water tanks are mounted under the extension transom berths, port and starboard, and vent up along the bulkhead at the aft end of the pilot berth. The water tanks fill at the aft end. Two 1/2" fresh water shut-off gate valves are reached via the aft cabin sole hatch in the Galley. If you have the optional Pressure Water System, the pump will be mounted just aft of these two valves.

II. SEA COCKS

All thru-hull fittings, except the Speed Indicator and Cockpit Drains, are equipped with gate valves. Gate Valves OPEN by turning counter-clockwise and CLOSE in a clockwise direction. Once a month, close and re-open these valves to keep them in working order. Also check the packing glands on all gate valves for seepage.

A. AFT HEAD, two valves

The Marine Toilet has an 1-1/4" Discharge Valve located under the forward section of the port quarter berth and a 1/2" Water Intake Valve under the Galley Sink. Both may be kept

open while sailing with no ill effects, assuming the internal "joker" valve is not held open by refuse. The "Pullman Type" lavatory drains into the Galley Sink Drain Valve assembly.

B. GALLEY, two valves

Both the Galley Sink and the Aft Head Lavatory drain into the after of two 1/2" valves located under the Galley Sink. Remember that the forward of these two valves serves as the Water Intake for BOTH Marine Toilets.

The Optional Salt Water Hand Pump would draw its water through the Engine Cooling Water Intake Valve.

C. FORWARD HEAD, two valves

This is the same general set-up as the aft head except that the 1-1/4" Discharge Valve for the Marine Toilet is located directly behind the bowl and the Lavatory has its own 1/2" gate valve directly below. This latter valve should be kept closed in periods of hard sailing conditions. Excessive heel, on the starboard tack, will cause the sink to fill and splash water into the cabin.

The optional Shower drains directly into the bilge.

D. ENGINE COOLING INTAKE, one valve

Located under the engine on the port side, this 3/4" valve MUST BE OPEN when the engine is running.

E. SPEED INDICATOR, no valve

This optional thru-hull has no valve and is located under the Galley Sole Hatch on the port side of the keel. A cap is furnished to cover the thru-hull if the sending unit is removed.

Water in the Bilge? Our fiberglass hull is water tight, but the Ice Box and optional Shower drain into the Bilge! Also there could be some seepage from the thru-hull fittings and the Propeller Shaft Packing Gland is supposed to drip water while running. The Hand Bilge Pump is mounted in the AFT Hanging Locker with a long section of hose to exhaust into the cockpit.

The optional Automatic Bilge Pump is mounted under the starboard quarter berth and would discharge under a clam-shell above the starboard cockpit drain.

The condition of the two Cockpit Drains may be checked by looking in the Cockpit Seat Lockers. Also note that the Rudder Post Tube has one "ZERK" fitting on the port side. If the rudder action is stiff, get a grease gun and pump a heavy bodied lubricant like water pump grease into this fitting.

The Cockpit Seat Hatches are secured by lines leading forward to jamb cleats located on the aft bulkheads of the quarter berths.

III. ENGINE

Operating procedures for the standard marine gas engine or the optional diesel are well covered in the enclosed manual. Several points should be re-emphasized:

A. GAS ENGINE

1. To start, turn the Main Battery Switch to the position you have designated as the engine battery.

2. Run the Blower five minutes prior to starting the engine. Switch is on the main instrument panel in the starboard cockpit seat locker while the blower discharges out thru the port transom deck vent.

3. Check that the Propeller Shaft Packing Gland just aft of the engine compartment is damp. Tighten the nuts snug enough to eliminate any excessive water drips.

4. Place Shift Lever into the large diameter ring of the Morse Control Head on the starboard cockpit seat riser. Start engine with lever in Vertical or NEUTRAL position. Lever FORWARD is FORWARD, AFT is REVERSE.

5. 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 has been included for your convenience.

6. Water and fuel lines OPEN?

7. Pull out Ignition Switch and Choke. Press Starter Button, When engine starts:

   a. Gradually push in Choke.

b. Adjust throttle to idling speed.

c. Check Oil Pressure: 30 to 35 pounds on a cold engine.

d. Cooling System is operating only if water is coming out of Exhaust Outlet in transom.

e. If oil pressure is low, STOP the engine and check oil level.

f. If water does not begin to flow out the transom outlet within 3 or 4 minutes, STOP the engine and check water intake valve.

g. Turn off Blower.

8. Run engine at Idle when shifting into forward or reverse. If equipped with a Martec Prop, (Right Hand, 18" x 12" x 1-1/4") please follow the instructions in the Appendix. At half throttle the CAL-43 will power around 7 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.

9. To Shut Down engine:

a. Push IN Ignition Switch.

b. Close Fuel Shut-off Valve and Cooling Water Intake Gate Valve.

c. Mark and align Propeller Shaft for Sailing Position and engage the Shaft Lock located on the aft end of the Transmission Housing. With the cross bar in the DEEP CUTS, the shaft is LOCKED, in the SHALLOW CUTS, the shaft is UNLOCKED. If the shaft is locked and the engine is running and placed in gear, no damage will result to the shaft but the lock pin will shear off and have to be replaced. With a standard two blade solid or feathering prop, the blades should be vertical. With a folding prop, the blades should be horizontal.

B. DIESEL ENGINE

The operation of the Diesel Engine closely resembles its gasoline counterpart. It follows, therefore, that it requires the same treatment and that gross negligence such

as running the engine short of oil, with sludged oil, or with water boiling will have the same expensive consequence.

Please be sure you have read the foregoing section on the standard gas engine and now note the changes that apply to the Diesel installation:

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.

2. 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 starboard 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.

3. To START ENGINE, make sure the Fuel and Water Valves are OPEN; then push Starter Button located in the starboard seat hatch waterway. When engine starts:

   a. Adjust Throttle, to Idling Speed of 700 RPM.

   b. Check oil pressure - 40 pounds.

   c. Cooling system is operating only if water is coming out of Exhaust Outlet in transom. Engine operating temperature is 170°F.

   d. If oil pressure is low, STOP the engine and check oil level.

   e. 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 both exhaust gate valves.

4. Run engine at idle when shifting into forward or reverse. If equipped with a Martec Prop (Right Hand, 18" x 12 x 1-1/4"), please follow the instructions in the Appendix. At 2100 RPM the CAL-43 will power around 7 knots using about one gallon fuel per hour. In smooth water, higher speeds can be obtained with higher RPM's but fuel consumption will increase accordingly.

5. To Shut Down Engine:

   a. Pull "KILL" Knob in instrument panel on aft side of the engine compartment.

   b. Close Fuel Valve and Water Intake Valve.

6. 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". Checking the water takes care of the latter. But if the water is OK, and there is sufficient fuel (and fuel shut-off valve is open) the fuel system will have to be "bled". This can be done without the assistance of a mechanic and is explained in the Engine Manual.

IV. 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. A two or three burner pressure Alcohol stove, with oven, is the normal optional installation. Operating instructions come with the stove, but a few additional points are important.

The 3 gallon Pressure Tank is in the Sink Drain Board Locker, just aft of the stove unless the optional Hot Water Tank is there. In this case, the Alcohol Pressure Tank would be 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. 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 a parts list, have been included.

Don't forget the earlier Tankage and Sea Cock instructions!

VI. ELECTRICAL SYSTEM

A 12 volt Alternator with 1-70 amp Battery, Master Switch and Circuit Breaker Panel powers the electrical system. The battery is located under the main cabin sole, second hatch forward of the Galley. Factory installed batteries are an automotive type, whose water level and charge must be checked. Since the engine is equipped with a 40 amp alternator, the Master Switch gets special consideration and is covered under Step "1" of the Engine Section. The Ship's Wiring Diagram has also been included.

A. The Circuit Breaker Panel is on the aft side of the engine compartment. Cabin Lights have their own individual switches. Dim lights indicate low batteries; keep your batteries well charged to avoid being "in the dark!"

B. Power input for the optional 110 volt Shore Power System is in the cockpit. Three double outlets are located below deck: one over the galley sink, and one in each head.

C. If you have ordered the optional Depth Indicator Box, it is mounted under the port transom berth.

With the engine running, your CAL-43 is ready to get underway. We shall pause for a moment and look about the deck thus becoming 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, we do not warrant the mast of your CAL-43 under our current warrant 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 races.

A. MAST TUNE

The mast should be set straight athwart-ships in the boat and have about a 24" 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, the intermediates not so firm and lowers fairly loose. 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 and 2" to 3" on the lowers. The intermediates are set last and serve to balance the pull of the uppers and lowers.

When racing, the backstay may be tightened up to compensate for the additional forward loading applied by the genoa. 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".

Under certain conditions, close reaching, for example, the "Double Head Rig" appears to be superior to the Genoa. Provision can be made to carry this rig with the following optional items:

1. Tangs on the mast for attachment of a Staysail Halyard and Running Backstays.

2. Staysail Halyard, Halyard Block, Winch and Cleat on the mast.

3. Staysail Tack Fitting on deck and hull tie-in assembly.

4. A staysail with a wire luff.

Since this rig is not normally used on a CAL-43 when "hard-on-the-wind", it is not necessary to set up the Staysail luff as tight as that of a Genoa. Thus the Running

Backstays need not be as tight as the Standing Backstay. A simple and adequate method of setting up the Running Backstays would be as follows:

1. Attach a block on the lower end of the Running Backstay.

2. Add two slides, about three feet apart, to the weather genoa track. The aft slide should be even with the forward side of the cockpit.

3. Run a length of 3/8" line from the forward slide, up to the backstay block, down to a lead block on the aft slide and tighten up with a free cockpit winch on the windward side.

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 compatable paints for this job. Epoxy is applied at the factory. "Rust-Oleum", in spray cans, is an excellent touch-up paint.

The spreaders are of 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.

A word of caution in regard to the optional Internal Halyard System: Make sure there is a KNOT in the bitter end of the halyards or the mast may have to be un-stepped to retrieve a lost halyard!

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.

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 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.

IX. 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.

X. 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 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 mahogany surfaces are finished with a satin varnish. 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-43. Within the 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-43. If we ran the list in reverse, adding only one item, your CAL-43 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

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 ("1") 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.

STANDING RIGGING

Note: All dimensions are center eye to eye or end of Thd. Shank

1 - Headstay 55'1/4" - 5/16" 1x19 s/s x 53'1 5/8", Marine Eye, each end
1 - Forward Lower - 7/32" 1x19 s/s x 23'0", Marine Eye & 3/8" Thd. Shank
1 - Fwd. Lower Pennant - 3/16" 1x19 s/s x 2'4 1/2", Marine Eye & 3/8" Thd. Shank
2 - Aft Lowers 26'3/4" - 5/16" 1x19 s/s x 24' 3 5/8", Marine Eye & 5/8" Thd. Shk
2 - Lower Uppers 26'10 1/4" - 5/16" 1x19 s/s x 24' 9 7/8", Marine Eye & 5/8" Thd. Shk
2 - Upper Uppers 26'3" - 9/32" 1x19 s/s x 25' 3" [illegible], Marine Eye, each end
2 - Intermediates 11' - 3/16" 1x19 s/s x 10' 8 1/2", Marine Eye & 3/8" Thd. Shk
1 - Backstay - 9/32" 1x19 s/s
  Standard 1/2" Turnbuckle w/Toggle x 55'6 3/8", Marine Eye & 1/2" Thd. Shank
  Merriman 477 Turnbuckle w/Toggle x 53' 11 1/8", Marine Eye, each end
  Barient Adjuster NOT Hydraulic x 53' 7 1/8", Marine Eye, each end
  Barient Hydraulic Adjuster x 53' 4", Marine Eye, each end
  Merriman Hydraulic Adjuster x 54' 2 7/8", Marine Eye, each end
2 - Running Backs 31'9 3/8" - 3/16" 1x19 s/s x 34' 0", Marine Eye, each end
1 - Boom Lift - 1/8" 1x19 s/s Plastic Coat x 46' 3", Nicopress Thimble, each end

Life Lines: Overall length includes Pelican Hook & Turnbuckle
  Upper - 3/16" 1x19 s/s Plastic Coat x 34' 5"
  Lower - 1/8" 1x19 s/s Plastic Coat x 34' 4"

RUNNING RIGGING

1 - Main Halyard - 3/16" 7x19 s/s x 102' Wire Rope
1 - Jib Halyard - 7/32" 7x19 s/s x 56' Wire Rope spliced into 56' wire eye to eye
  7/16" x 53' Dacron Yacht Braid Tail
1 - Staysail Halyard - 3/16" 7x19 s/s x 39' Wire Rope spliced into
  3/8" x 34' Dacron Yacht Braid Tail
1 - Mainsheet - 1/2" x 80' Dacron Yacht Braid
2 - Genoa Sheets - 1/2" x 80' " " "
1 - Down Haul - 5/16" x 6' " " "
1 - Boom Lift Tackle - 5/16" x 22' " " "
1 - Out Haul Tackle - 5/16" x 10' " " "
1 - Out Haul Wire - 1/8" 7x19 s/s x 8' Nicopress Thimble, each end

SPINNAKER GEAR

1 - Spinnaker Halyard - 1/2" x 108' Dacron Yacht Braid
2 - Spinnaker Sheets - 1/2" x 60' " " "
1 - Pole Topping Lift - 3/8" x 77' " " "
1 - Fore Guy - 7/16" x 68' " " "

REEFING REAR

1 - Clew Pennant - 7/16" x 37' Dacron Yacht Braid
1 - Tack Pennant - 3/8" x 21' " " "

ROLLER REEFING BOOM

1 - Out Haul Wire - 1/8" 7x19 s/s x 20', Nicopress Thimble each end
1 - Boom Lift Pennant - 1/8" 7x19 s/s x 90' with
5/16" x 12' Dacron Yacht Braid Tail
1 - Boom Lift Tackle - 5/16" x 22' " " "