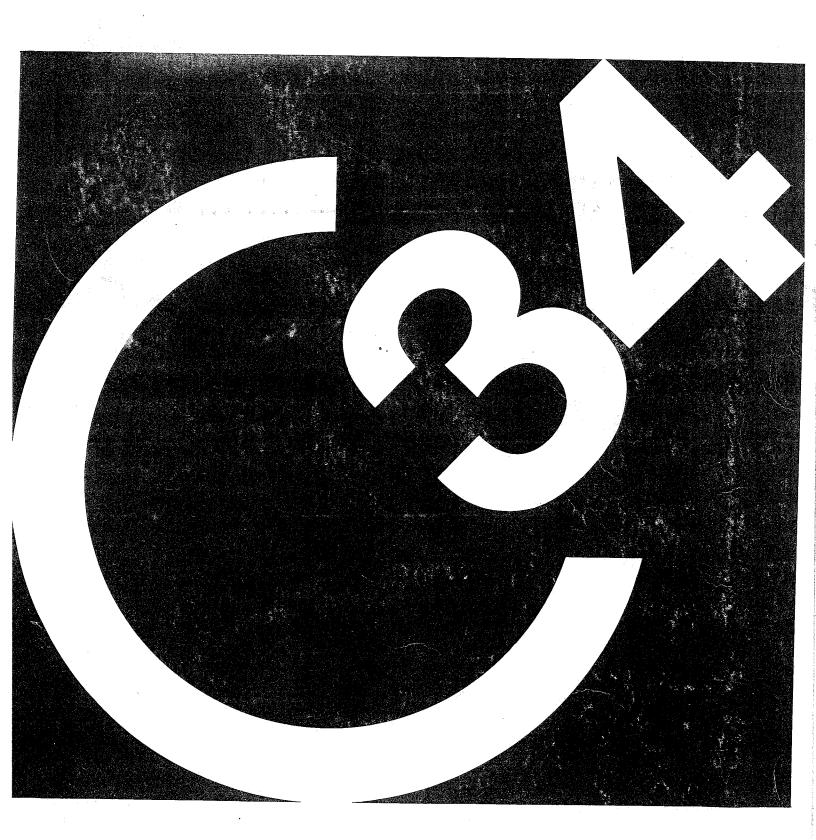
CAIL BOAIS

owner's manual



On behalf of Jensen Marine, we would like to thank you for selecting a Cal 34-III. Great care has been taken in both the construction methods and equipment used on your boat.

The use of anodized aluminum, stainless steel, teak wood, and fiberglass all combine to produce a yacht that has much lower maintenance requirements than those in the past. However, it is vital that the necessary maintenance procedures be performed faithfully.

This manual is designed to familiarize you with your boat. It should help you to establish a prudent checklist to be used before and after each outing. The location and function of each system onboard will be outlined to help make any adjustments of maintenance procedures more easily undertaken.

Cal Boats reserves the right to change specifications without notice and this manual may not reflect all such changes. Since we are always striving to improve our product, modifications and improvements are constantly in process and, therefore, it is possible that your boat may contain features different from those enumerated in this manual. It is impractical to revise this manual for each such modification. It is our policy to make improvements whenever it is appropriate without waiting for corresponding updates in our manual.

Full information on optional equipment may not be contained herein. Contact the option manufacturer or your Cal Boats dealer for more information.

Please read and understand this manual, and all others included with your boat, before operating any of the boat's systems. In addition to information contained in this manual, there are certain federal, state, and local regulations pertaining to safe and legal operation of pleasure craft that you should familiarize yourself with. Local governmental agencies and boating groups can help you become aware of these regulations.

HAPPY SAILING!!!



CAL 34

STANDARD BOAT

DIMENSIONS

0	LOA	33'6"
0	LWL	24'2"
0	Beam	913" 10
0	Draft	419"
0	Displacement	10,200 pounds
Ø	Ballast	3,750 pounds
0	Rig Dimensions	
	I J P E	41'3" 13'9" 35'6" 11'0"
0 0 0	100% foretriangle Mainsail area Total Mast above water	283.6 square feet 195.3 square feet 478.9 square feet 45'

HULL CONSTRUCTION

- One piece hand laid fiberglass hull from one piece mold, lamination is a combination of mat and roving with extra lamination in keel support areas. Color and stripes molded in. White hull with any color stripes is standard.
- o Bulkheads bonded to the hull.

DECK AND COCKPIT

- o One piece hand laid fiberglass construction with molded in non-skid surface, plywood core for additional strength. Standard color is white.
- o Cockpit is over 8' long and has solid teak seatbacks.
- o There is one cockpit seat hatch.
- o An anchor storage well is molded into the foredeck and has a latched fiberglass cover and drain.
- o Cockpit has bridgedeck at the companionway.
- o Deck is bonded to the hull and structural bulkheads.

KEEL

o The keel consists of 3,750 pounds of lead internally mounted and bonded into the hull.

RUDDER

o Fiberglass covered high density foam with stainless steel rudder tube.

FLOORPAN

o The fiberglass floor pan adds rigidity to the hull. It is made with a combination of chopper gun and hand laid fiberglass. The floorpan is Tan #FC23134 in color and is bonded to the hull.

HEADLINER

o A white fiberglass headliner is installed in the head and v-berth areas.

MAST

- o Length of tube 39'3", 6061 T6 Alloy.
- o Clear finish on spar surface.
- o 9" x 5½" section with 160 mil wall section.
- o Welded masthead with four sheaves to handle main and jib halyards.
- o 40" aluminum airfoil spreaders.
- o Headstay, single backstay, upper shrouds and single lowers are all stainless steel 1 x 19 cable
- o Navtec turnbuckles.
- o Stainless steel tangs, toggles, pins used for mast rigging.
- o Two #10 chrome winches on mast.
- o Two halyard cleats on mast.
- o One main and one jib halyard (stainless steel wire and dacron line tails).
- o 7/8" stainless steel sail track for mainsail luff.

BOOM

- o Boom has clear finish.
- o Eliptical aluminum boom section.
- o Boom has adjustable outhaul car and track.
- o Adjustable wire topping lift support boom.
- o Fixed gooseneck and welded boom end fitting.
- O Four part mainsheet system is suspended between boom end and bridgedeck traveler.
- o Jiffy reefing gear.

MAINSHEET

- o Mainsheet is 4 to 1 purchase system.
- o Mainsheet adjusted from cleat on cabin top.
- o Rollerbearing mainsheet traveler with controls mounted on bridgedeck.

DECK HARDWARE

- o Single stainless steel bow and stern pulpits.
- o Double lifelines.
- o 24" stainless steel stanchions.
- o Lifeline boarding gate to starboard.
- o Stainless steel chainplates and stem fitting with tack pin.
- o Four mooring cleats 4 hole 7".
- o Two sheet tracks 6' x 1%" x 3/16" black anodized "T" track.
- o Two #21 chrome sheet winches.
- o Two sheet cleats.
- o Two teak handrails on cabin top.
- o Two large, anodized aluminum framed, smoked plexiglass hatches on deck. One located on the foredeck, second mounted on the cabin top over the main salon (20" x 20").
- o Fiberglass main companionway hatch with teak drop board and trim.
- o One 10" chrome winch handle.
- o Two drains in aft end of cockpit.
- Two sheet blocks on track sliders.
- o Two jib sheets 2" dacron.
- o One downhaul/Cunningham line and cleat on mast.
- o Pedestal wheel steering with engine controls in head 24" wheel diameter with brake.
- o Emergency tiller, deck plate over rudder post.

FORWARD CABIN

- o Chainlocker in forepeak, oiled teak bulkhead with hinged teak door.
- o Shelves over v-berth with solid teak sea-rails.
- Vinyl hull liner material on hull sides.
- o Two piece v-berth cusions, 4" foam with fabric covers, v-berth is over 6'6" long.
- o V-berth filler cushion.

FORWARD CABIN (Cont'd)

- O Bunk support is finished in formica and has three access ports for storage.
- o Bulkhead aft of v-berth is oiled teak.
- Two bulkhead lights.
- o Formica topped low boy dresser to starboard with three drawers and smoked plexiglass cabinet above.
- o One opening port over cabinet.
- o Molded fiberglass floorpan.
- o Color coordinated carpet.
- o Aluminum framed smoked deck hatch over v-berth.
- o Headroom is 6'1".

HANGING LOCKER

- O A hanging locker with teak door is to starboard. The locking teak door doubles to provide privacy to v-berth area.
- o Hanging bar.
- o Vinyl hull liner material.
- o One opening port over hanging locker.

HEAD AREA

- o Separate head area with teak door.
- o Two opening ports.
- o Formica finish on all bulkheads with teak edge trim.
- o Mirror on bulkhead.
- o Space for optional head/sanitation device.
- o Molded sink with faucet for pressurized fresh water system, drain through bronze through hull and gate valve.
- o Cabinets with shelves under sink.
- o Hand held cold water shower and shower curtain.
- o Molded floor pan with shower drain to bilge sump.
- o Cabinets with smoked plexiglass sliders under portside decks.
- o AC shore power outlet.

MAIN SALON

- o Removable parchment vinyl headliner.
- o Oiled teak bulkheads and trim.
- o Exposed stainless steel chainplates.
- o Solid teak mast support post.

MAIN SALON (Cont'd.)

- o Three position dinette table (folds up against bulkhead, down to become full table and drops all the way down to form large double berth).
- o AC shore power outlet under table.
- o 'L' shaped settee has five piece cushion of 5" foam with fabric covers.
- O Hinged seat back has removable 3" foam/fabric cushions attached with velcro strips.
- o One fluoresent bar lamp above port settee.
- o Shelf above port side settee has smoked plexiglass sliders.
- o Gimballed brass lamp on forward bulkhead.
- o Window curtains.
- o Aluminum framed smoked plexiglass hatch over dinette table.
- o Two teak cabin handrails port and starboard.
- O Starboard side has settee/berth 6'5" long with three piece '5" foam cushions with fabric covers.
- o Shelf above starboard settee.
- o One fluoresent bar lamp on starboard side.
- o Four fixed, smoke plexiglass windows in main salon.
- o Settee filler cushion.
- o Teak cushion retainer rail on settees.
- o Molded fiberglass floor pan.
- o Color coordinated carpet.
- o After bulkhead is oiled teak.
- o Teak companionway steps, bottom step is removable to provide access to v-drive unit.
- o 6'6" quarter berth is 4" one piece cushion with fabric cover.
- o Fiberglass main companionway hatch with teak ply drop board.
- o Headroom is 6'1".
- o Two companionway grab rails.

CHART TABLE

- o Forward facing chart table with hinged formica top with storage under.
- o Adjustable chart light.
- o Two drawers below.
- o Master electrical control panel located outboard of chart table.
- o Storage bin on hull side outboard of quarter berth.

GALLEY

o Galley located aft on port side with stovewell outboard.

o Formica counter top.

o Stainless steel sink with faucet for pressurized system, drain through bronze through hull and gate valve.

4.2 cubic foot top-loading ice box with foam insulation, drain to the bilge sump.

o Cabinet under sink.

o Three drawers under counter.

o All counters have teak searails with wipeouts.

o Food storage locker with plate rack outboard of galley with smoked plexiglass sliders.

o AC shorepower outlet.

o Fluorescent lamp over galley counter.

o Stovewell with space for optional two or three burner stove with oven.

ELECTRICAL

o Two 105 amp marine batteries in plastic boxes.

One vapor proof master battery switch.

- Master electrical control panel with D/C indicator light, battery condition indicator and circuit breaker accessory panel.
- o Eight cabin lights.
- o International running lights.

o Bow light on mast.

- o AC shorepower system with three cabin outlets, AC main breaker switch and deck inlet.
- o Lightning ground system.

PLUMBING

- o 60 gallon fresh water tank. Fill and tank located under V-berth area.
- o Fresh water pressure pump with pressure sensitive shut off-valve, supplies water to head sink, shower, and galley sink.
- o Clear vinyl tubing is used to direct fresh water.
- o Sinks drain through bronze through hulls and gate valves.
- o A manual Whale Gusher #8 bilge pump with cockpit access.
- o Electric shower sump pump is provided to drain shower water, operating switch is in the head compartment.

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OPTIONAL EQUIPMENT

- o Anchor light 360° clear light mounted on the masthead with circuit breaker.
- o Spreader lights two chrome lights mounted on spreaders to light decks at night.
 - o Gusher 10 bilge pump with cockpit access in addition to standard bilge pump. This is mounted flush in cockpit and pumps overboard with all hatches closed.
 - o Boom vang eyes one pad eye internally secured in the boom and one in the base of the mast, ready for addition of vang assembly.
- o Boom vang package includes boom vang eyes and 4 to 1 purchase vang tackle with cleat.
- o Spinnaker gear fixed on mast includes a mast head bale and aluminum "T" track ($1\frac{1}{4}$ x 3/16 x 6') on the face of the mast, topping lift bale.
- O Double bow and stern pulpits includes an additional middle rail for standard single pulpits.
- √o Lifeline gate to port a second matching gate on port side.
 - o Adjustable backstay Ronstan #718 wheel backstay tensioner.
- o Tiller in lieu of wheel (credit) substitution of a laminated tiller and chrome rudder head in place of standard wheel.

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OPTIONAL EQUIPMENT

- o Hot water system adds hot water to standard cold pressurized system. Six gallon Raritan water heater that works with AC shorepower system or engine heat exchanger. Plumbed to head and galley. Tank located under cockpit seat hatch.
 - o Salt water galley pump counter top manual pump at galley sink, includes bronze through hull and gate valve.
 - o Recirculating head portable Tota II with mounting bracket (or equivalent).
 - o Recirculating head with deck discharge Jensen 770 including hose and deck plate (or equivalent).
 - o Optional fabrics see Dealer Decor Books.
 - o 2-burner alcohol stove with oven gimballed with stainless steel stove well liner. Includes fuel tank with shut-off valve and pump.
- ✓o 3-burner alcohol stove with oven gimballed with stainless steel stove well liner. Includes fuel tank with shut-off valve and pump.
- ✓o Lectra-San with Raritan "Compact" head with overboard discharge.
 - o 2 or 3 burner compressed natural gas stove with oven, gives the advantages of compressed natural gas (vapors rise), includes tank, stove, fuel line with shut-off valve and regulator.
- o Stove liner only stainless stove well liner to add additional safety margin, custom fitted. Standard with alcohol stove options.
 - o Universal Atomic 4 gas engine (credit) exchange for more expensive diesel engine. 30 horsepower gas engine with V-drive and Coast Guard vent system and metal fuel tank.
 - o Coast Guard vent system deck vents and power blower to ventilate bilge.
 - o Martec prop folding low drag prop replaces standard two blade fixed prop.
 - o Depth indicator box consists of a fiberglass box under one of the settees to provide a waterproof container for depth sounder through hull.

AUXILIARY POWER

- o A four cylinder fresh water cooled, 24 horsepower diesel engine Westerbeke 4-91 with two to one reduction and V-drive is standard.
- o Complete engine controls and instrument (oil pressure, water temperature, and amp meter).
- o 34 gallon fuel tank with shut off valve, deck fill hose to starboard and tank vent.
- o Engine alternator.
- o Bronze fittings and gate valves on engine cooling water intake.
- o Engine access from:
 - a). sliding panels in quarterberth.
 - b). cockpit seat hatch.
 - c). companionway steps.
- o Two bladeá bronze prop (16 x 12 x 1 left hand)

MISCELLANEOUS

- o Shipping cradle
- Propeller Shoft is I" radius takes Zive "I" shaft "- no wider than

PLUMBING

STANDARD PRESSURIZED WATER SYSTEM

Water Tank. The 60 gallon water tank is located under the forward V-berth. The tank is vented by tubing to the chain-locker. The fill cap is located on the aft end of the tank. To fill the tank, bring a fill hose through the forward deck hatch. Water system pick-up is on the bottom of the tank.

Water Pump. For the pressurized system, the pump is also located under the forward V-berth. Access is provided by the hatch on the aft port end of the V-berth. From here, the water is plumbed to both the head and the galley.

The Head. It is supplied with a sink faucet and a shower. The sink drains to a through hull fitting and shut-off gate valve located under the sink. The shower drains to the bilge sump. Be certain to drain the bilge after using the shower.

Bilge Pumps. Two bilge pumps (one manual and one electric) are standard. The manual pump is located just inside the port side seat hatch. It is routed to an above waterline through hull, near the transom. The electric bilge pump is mounted in the engine compartment at the aft end of the quarter berth. The exhaust hose from this unit is routed to an above waterline through hull near the transom. The switch to activate the pump is located on the Master Electrical Panel. The bilge pump is manually activated and caution should be taken not to activate the pump when the bilge is dry.

OPTIONAL HOT WATER SYSTEM

The optional hot water system may be used with shore power or when the engine is running.

<u>Water Heater</u>. The 6 gallon Raritan water heater is located under the cockpit sole, just aft of the engine. The best access to this unit and plumbing is through the cockpit seat hatch.

WARNING!

Never operate the water heater without water in the heating tank. The heating coil will burn out. To check, turn on the pressure water switch and open hot water tap. When air ceases flowing from the tap, the tank is full.

Shore Power Operation. Activate by throwing the toggle switch located next to the master battery switch and AC circuit breaker facing the quarter berth on the side of the companionway steps.

While Engine Is Running. Engine heat transfer is automatic when engine is running.

OPTIONAL SALT WATER GALLEY PUMP

The optional galley pump has a bronze through hull and shut-off valve located just under the forward end of the quarter berth. Access is provided through a plywood hatch.

DECK DRAINS

There are three deck drains. One is located in the recessed anchor locker. This drains to a waterline level through hull fitting located under the forward port corner of the V-berth. There are two cockpit drains which are interconnected and have two through hull fittings and shut-off valves located just under the cockpit sole. Access is through the cockpit seat hatch.

THROUGH HULL LOCATIONS

Forward Cabin. One through hull is located forward port corner of V-berth; anchor locker drain.

Head Area. One through hull is standard, located under the sink; head sink drain. NOTE: Additional through hulls may exist depending on head unit.

Galley Area. Two to three through hulls are located here. One is for engine intake and located under the companionway steps. One is for the galley sink drain and located under the sink. One is for the optional galley salt water pump, located under the forward end of the quarter berth.

Engine Compartment. There are four drains. Two are located aft above the waterline near the transom. One is for the electric bilge pump and one is for the manual bilge pump. The other two drains are located directly under the cockpit for the cockpit drains.

OTHER OWNER INSTALLED THROUGH HULLS:

FORWARD - anchon lacken	(1)
Minshin - Sink drain, head mtoke, head out Down, galley drain engine	(5)
Aft - corket croins (2) belge remis (2)	(4)

CAL: 34 HOT & COLD WATER SYSTEM

CAIL BOATS

RIGGING LIST

- o <u>Headstay</u> 41'1" 9/32" x 1 x 19 SS marine eye to Navtec barrel.
- o Backstay 43' 7½" ¼" x 1 x 19 SS marine eye to Navtec barrel.
- o Upper Shrouds 37'4" %" x 1 x 19 SS marine eye to Navtec barrel.
- o Lower Shrouds 18'3/4" 9/32" x 1 x 19 SS marine eye to Navtec barrel.
- o Boom Topping Lift 36'0" 1/8" 7 x 19 SS thimble eye to thimble eye.
- o Main Halyard 44'0" 3/16" 7 x 19 SS thimble eye to thimble eye and shackle.
- o <u>Jib Halyard</u> 43'6" 3/16" 7 x 19 SS thimble eye to thimble eye and shackle.
- o Boom Outhaul 7'6" 1/8" 7 x 19 SS thimble eye to bitter end.

The San Francisco Bay rig ("short rig") is the same as above except for dimensions as listed below:

- o <u>Headstay</u> 38' 11½".
- o Backstay 41'6".
- o Upper Shrouds 36'7".
- o Lower Shrouds 18'3/4".
- o Boom Topping Lift 34'0".
- o Main Halyard 42'6".
- o Jib Halyard 42'0".

CLEUIS PINS -(10) - 1/2" diameter, 1/4" total length, 7/8" usable Cotter Pins -(22) - 1/8" wide, 11/2" long

RIGGING LIST

Rope rigging lengths and size for standard rig and San Francisco rig:

- o Mainsheet 7/16" x 56'0" 1.
- o Jib Sheets $\frac{1}{2}$ " x 56'0" 2.
- o Cunningham 5/16" x 6'0" 1.
- o Main Halyard Tail 3/8" x 40'0" 1.
- o Jib Halyard Tail 3/8" x 40'0" 1.
- o Outhaul 5/16" x 6'0" 1.
 - o <u>Boom Topping Lift</u> 5/16" x 12'0" 1.
 - o Reefing Lines 7/16" x 22'0" 2.
 - o <u>Spinnaker Halyard</u> 7/16" x 90'0" 1.
 - o Spinnaker Sheets 7/16" x 60'0" 2.
 - o <u>Spinnaker Foreguy</u> 7/16" x 39'0" 1.
 - o Spinnaker Pole Topping Lift 3/8" x 56'0" 1.



RIGGING ADJUSTMENT

If you are without previous experience, it is suggested that you employ the services of an expert rigger or sailor to assist you in the adjustments of your rigging. Here is some information that will be helpful in the initial stages.

DOCKSIDE STARTING POINT

All rigging should be adjusted at the dock so that pressures on the mast are equal fore and aft, port and starboard.

- o Set the mast straight athwartships, i.e., the line of the mast from head to step should lie on the plane of the fore/aft centerline of the boat. Adjusting the port and starboard upper turnbuckles to the same length usually makes a good starting point.
- o Fore and aft mast rake is adjusted by the tightening and loosening of the forestay and backstay. Adjusting the rake will affect the sailing characteristics of the boat. The more rake aft, the more weather helm will be apparent. The more rake forward, the less weather helm. Rigging tension will depend on the intended usage of the boat.
- o Remember that these are dockside starting points and that further adjustments should be made by someone qualified to do so.

ELECTRICAL

ELECTRICAL CONTROL PANEL

This panel is located over the chart table and controls the distribution of DC power throughout the boat. In addition to the circuit breakers on the panel, there is a master battery switch warning light and battery.

BATTERY CONDITION INDICATOR

The indicator on your boat is called a suppressed zero voltmeter. The test switch illuminates and activates the meter reading for battery set 1 and 2. If the master battery switch is positioned at "BOTH", the battery condition indicator will read the condition of both batteries regardless of the test switch position. Therefore, to test each battery independently, be sure the master battery switch is positioned on either 1, 2, or "OFF".

Before starting engine, test the condition of both batteries and select the strongest battery for the engine start by appropriate positioning of the master battery switch.

ENGINE ALTERNATOR

The engine alternator will bring the starting battery back to a full charge within 15 to 30 minutes, assuming the battery was fully charged before engine starting. Voltage range interpretations are as follows:

Engine not running OR at idle)) 	below 11 very low charge 11-12 low charge 12-13 well charged
Engine running)	13-13½ low charge rate 13½-15½ alternator and
above idle speed)	voltage regulator OK 15½ or more voltage regulator out of adjustment

When both batteries are fully charged, change the master battery switch to either "1" or "2". This keeps one battery in reserve at all times.



Use the "BOTH" position for engine starting only when both batteries are low, unless one is completely discharged. In this case, do not use the "BOTH" position for engine starting since the discharged battery will rob the other more fully charged battery of its crucial starting power voltage.

WARNING!

Never move the master battery switch to "OFF" while the engine is running. You may burn out the alternator diodes.

CIRCUIT BREAKERS

Accessory loads may be selected as desired by turning on the master control panel circuit breakers. The circuit breakers will automatically open the circuit by switching themselves to "OFF" in the event of an overload on the particular circuit. Always investigate the cause of the overload and correct any deficiencies before repositioning the circuit breaker to "ON".

All wires, connections, and terminals should be inspected regularly for loose connections which may cause electrical sparks or high resistance. This is especially important for engine accessory wiring.

Before leaving your boat, always turn off the master battery switch. Do this ONLY AFTER YOU HAVE SHUT DOWN YOUR ENGINE.

A one year electrical system warranty will be validated by Marinetics Corporation, P. O. Box 1015, Newport Beach, California 92660, when you properly complete the warranty registration form.

BATTERIES

There are two batteries located on the port side of the engine compartment. Access for inspection and service of the batteries is through the cockpit seat hatch. A 40 amp alternator is provided for recharging the batteries.

WARNING!

You may switch from one battery to another for charging but DO NOT pass through the "OFF" position while the engine is running as the diodes will be burned out.

MASTER BATTERY SWITCH

It is located on the panel facing the quarter berth, just below the companionway steps. You may select either or both batteries. It is advisable to use one battery at a time while cruising. This will keep the second battery in reserve for starting the engine.



SHORE POWER SYSTEM

The shore power system accepts 110 VAC through a 3-prong male connection. A master circuit breaker is provided for the shore power system. To activate shore power, throw the circuit breaker switch after the shore power line is connected to dock power.

CAL BOATS

COMMISSIONING

Many precautions are taken to ensure the integrity of your boat during the delivery process. Your dealer is responsible for final delivery. He performs an elaborate final check on every system on your boat to ensure safe delivery to you. We suggest that you work closely with your dealer while he is installing any optional equipment. He is best qualified to familiarize you with the various systems on your new yacht.

Below is a checklist similar to the one your dealer uses in the commissioning process.

PRELAUNCH

- o Touch-up bottom paint.
- o Install prop.
- o Through hull fittings tight.
- o Rudder moves freely.
- o No excessive play in steering system.

ENGINE

- o Refer to owner's manual.
- o Exhaust hook-up complete.
- o Electrical checkout (panel, blower).
- o Controls function.
- o Oil level.
- o Engine/shaft alignment.

DECK

- o Water test windows, rails, and stanchions.
- o Lifelines secure.
- o Turnbuckle locknuts tight.

LAUNCH

- o Through hull check.
- o Open gate valves, check lines.
- o Head functions.
- o Fill water system, check water pumps and lines.
- o Adjust standing rigging.
- o Check all electrical systems.
- o Fill fuel tank and check fuel system.
- o Sea trials under power (minimum one hour).

ENGINE RUNNING

OIL Pressure = 80 ps

o Exhaust water flow.

temperature = 180 °F - 190 °F

o Oil pressure.

o Fuel leaks.
o Refer to owner's manual.

FINAL CHECK

o Boat clean.

o Optional equipment aboard.

o Carpet installed.

o Warranty registration completed, copy to owner, copy to factory.



ENGINE OPERATION

STANDARD ENGINE

A Westerbeke 491 diesel with 2:1 reduction and V-drive is installed as the standard engine in your boat. We suggest that you follow inspection and maintenance procedures provided by the Westerbeke Company.

STARTING YOUR ENGINE

- o Make sure engine water intake valve is open. It is located under the companionway steps.
- o Check fresh water level for engine header tank. It is located on the starboard side of the engine and accessible from the starboard quarter berth.
- o Open fuel supply valve. It is located under the starboard settee berth.
- o Check fuel level. Gauge is located on aft side of electrical control box.
- o Select most fully charged battery on master switch to start engine.
- o Turn blower on to ventilate bilge (gas engine only). This is extremely important with the optional gas engine.
- o Check transmission for neutral position. The lever should be in a vertical position.
- O ABOVE ALL, READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS!

FUEL SYSTEM

The 34 gallon fuel tank is located under the starboard settee berth in the main cabin.

Fill Hose. The fill hose is routed to a chrome deck plate located near the starboard shrouds. Access to the fill hose is in the hanging locker.



Tank Vent. The tank vent is routed behind the chart table to a deck vent. This is located just below the rub rail.

Fuel Lines. Access to the fuel gauge pick-up and return lines at the tank is provided by a hatch cut in the aft end of the starboard settee berth.

Fuel Shut-Off Valve. This valve is located on the fuel tank pick-up line. It is accessible under the settee hatch.

Fuel Gauge. A fuel gauge is provided. It is located on the aft side of the master electrical panel box. The switch next to the gauge operates the gauge and light.



FUELING

Below is	a basic checklist for visits to the fuel dock:
	Do not smoke.
<u></u>	Stop all engines and electric motors that might cause sparks.
	Turn off stove and oven.
<u> </u>	Close all ports and hatches.
-	Keep filling nozzle in contact with deck plate to avoid static sparks.
	Wipe up and hose down any fuel spills on deck. Be sure not to get any water in your fuel tank.
	Open all ports and hatches to ventilate after fueling is completed.
	Turn on optional blower and ventilate bilge after a "sniff" check of the bilge.
· · · · · · · · · · · · · · · · · · ·	Always filter your fuel when refueling in a foreign port.



STEERING GEAR

PEDESTAL STEERING

Steering gear on your boat has been selected and installed to give you a smooth and reliable steering action. A basic familiarity with the steering system will help you avoid trouble. Heavy duty linked chain and sprockets in the steering pedestal control the steering cables. The cables run to a metal sheave box located under the cabin sole and then to a steering quadrant bolted to the rudder post. Access is via the cockpit seat hatch.

SERVICE

It is imperative that the steering system be inspected and lubricated at regular intervals. All sheaves in the system should be inspected for wear and alignment. The rudder post bearings should be lubricated with a heavy marine grease at frequent intervals. The steering cable tension may be adjusted on the steering quadrant.

EMERGENCY STEERING GEAR

The emergency tiller should be stored in a convenient and accessible place. A deck plate in the cockpit sole provides access to the rudder post. The emergency tiller is slotted to match cross pin in the rudder post.

It is recommended that you practice the installation procedure before an emergency arises.

TILLER STEERING

If your boat comes equipped with a tiller, it is important to check the rudder head and tiller bolts regularly. The rudder post should be lubricated with a heavy marine grease at regular intervals, depending on use.

CAIL BOATS

COMING ABOARD

Here's a	checklist approach for your crew:
	Check bilge for excessive water. Check weather conditions and tides. Check food supply. Foul weather gear. Linen, sleeping bags. Fuel. Water. Sun screens and sun glasses. Tools. Docking and anchor gear. Check radio operation. Navigation charts and instruments. Cruise plans to a friend or Coast Guard. Fuel for stove. Cooking and eating utensils. Check battery water level. Oil level, tight V-belts. Check for loose electrical connections in engine room. Secure tools or any loose equipment in engine room so as not to get fouled in engine. AC systems off, electrical cord stowed.
	Fuel.
	Sun screens and sun classes.
	Tools.
***************************************	Docking and anchor gear.
-	Check radio operation.
	Navigation charts and instruments.
-	Cruise plans to a friend or Coast Guard.
	Fuel for stove.
	Chock battery water level
	Oil level tight V-belts.
	Check for loose electrical connections in engine room. Secure tools or any loose equipment in engine room so as
	not to get fouled in engine.
	AC systems off, electrical cord stowed.
	Doors and drawers secured.
	Check steering lock to lock.
	Uneck mast for rigging infegurationes and dignomess.
	No lines or other obstructions near the propeller or bow.
	Anchor ready to run.
	Check lifelines for tightness.
COTTO De La CANTO	AC systems off, electrical cord stowed. Doors and drawers secured. Check steering lock to lock. Check mast for rigging irregularities and tightness. Halyards and sheets are clear and ready to run. No lines or other obstructions near the propeller or bow. Anchor ready to run. Check lifelines for tightness. Turn on fuel and water lines.
	Stow all loose gear.

GOING ASHORE

	Sails dry and stowed.
-	Fuel lines and water lines turned off.
	Bilge pumped dry.
	Wallet, jewelry and other valuables are not left onboard.
	Battery switch off.
	Charger on.
	Hatches and ports locked.
	Topsides clean.
********	Appropriate seacocks closed.
	Clean interior of food and rubbish.
	Fenders in place.
	Halyards secured away from mast.
-	Dock lines secured.
	Loose gear stowed.
	Sails furled and covered.
	All covers in place.
	Main companionway locked.
	Check in with whomever kept your cruise plan.

GOING ASHORE

	Sails dry and stowed.				
	Fuel lines and water lines turned of	f.			
	Bilge pumped dry.				
-	Wallet, jewelry and other valuables a	arė	not	left	onboard.
	Battery switch off.				
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	Fenders in place.				
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······································	Loose gear stowed.	9			
	Sails furled and covered.				
	All covers in place.				
	Main companionway locked.				
	Check in with whomever kept your crui	ise	plan	1.	



CARE OF FIBERGLASS

Your fiberglass boat requires periodic cleaning and waxing. The frequency of cleaning and waxing will depend upon the degree of care you exercise after each sail. Detergents remove wax. If you want to keep your fiberglass hull smooth and shiny with wax, do not use a detergent when you wash down your boat.

When the fiberglass takes on a dull appearance, the gelcoat surface is oxidized and requires rubbing out. Use a light rubbing compound or polish for this procedure. If you use a buffing machine, be careful not to power through the gelcoat.

After buffing or polishing, a coat of wax will preserve the shiny appearance of your gelcoat. Any good wax will do. Personal preference and ease of application may be your guide in the selection of waxes.

In the event of minor gelcoat damage, consult your local marine hardware store. For more extensive damage, contact a professional.



SPAR AND RIGGING MAINTENANCE

The spars fitted for your vessel are lightweight extruded aluminum alloy. The finish of aluminum is protected against corrosion by a thin, transparent film of aluminum oxide. Dust, dirt, and salt will adhere to this film, making the surface appear dull. Coating the clean surface with a good paste wax will help protect the finish of your spars and make cleaning easier.

If the surface has become tarnished, any high grade cleaner/wax will restore the original sheen. If your spars are black anodized or painted, hose off the salt spray after each sail to preserve the finished appearance.

Clean rigging ensures clean sails. A quick trip aloft with a damp rag is all that is necessary to clean the rigging. While you are up there, check for loose screws, nuts, bolts, cotter pins, and any chafe which may have resulted from hard sailing. Also, inspect swaged fittings and chainplates for hairline cracks that may have resulted from stress. Replace any such fittings or hardware. Periodic inspection is your best insurance against rigging or hardware failure. Occasional lubrication of the turnbuckles with WD-40 or equivalent will ensure easy adjustment.

Salt water will gradually stiffen dacron line. Frequent fresh water washdowns or soaking in warm soapy water will keep the line soft and flexible. Keep your line coiled and stowed in a dry place below decks.



CARING FOR YOUR TOPSIDE TEAK

All woodwork topside is unfinished teak. When the teak becomes dirty or turns color, it may be desirable to clean and refinish it with teak oil.

There are many two and three part products on the market that will satisfactorily clean and finish your teak. Most of them, however, will stain fiberglass or painted surfaces if allowed to stand. Follow the instructions on the package.

Any good quality teak oil may be used after the wood is completely clean. Most hardware stores and marine hardware stores will carry this product.

CAL BOATS

CAL PERFORMANCE YOU CAN COUNT ON!

Performance is bred into the Cal line of cruising sailboats as a result of many years of design and construction improvements. We want you to enjoy your new Cal cruising boat to its fullest. To help keep you abreast of information that is occasionally sent from Cal Boats, we need your name and address. The best way to accomplish this is by seeing that you or your dealer send in the warranty registration card. This keeps your name permanently in our files.



AUTHORIZED WARRANTY SERVICE STATIONS

ALASKA

Alaskan Yacht Sales, 4620 Emerald Court, Anchorage 99502

ARKANSAS

Old Salt Sail & Power, 7404 S. University Avenue, Little Rock 72205

CALIFORNIA

Craig Froley Yachts, 25082 Del Prado, Dana Point 92629
Jack Dorsee Sailboats, 1880 Harbor Island Drive, San Diego 92102
Helmsman Yacht Center, 275 Lake Avenue, Santa Cruz 95062
Hoig's Sailing Center, 901 Howe Avenue, Sacramento 95825
Mariner Yachts, 2312 Newport Boulevard, Newport Beach 92660
Stan Miller Sailboats, 245 Marina Drive, Long Beach 90803
Obexer's Boat & Motor Sales, 5290 Westlake, Homewood 95718
Aloha Yacht Sales, 4252 Lincoln Boulevard, Marina del Rey 90291
John Beery Company, 2415 Mariner Square, Alameda 94501
Shelter Point Yachting, Berth 41-A, San Pedro 90731
Stockton Yacht Sales, 4960 W. Brookside Road, Stockton 95207
Yachtsman, Inc., 3611 S. Victoria Avenue, Oxnard 93030

CANADA

Disten Marine, Ltd., 80 Les Chenaux, Vaudrevil, Quebec J7V-163 Tony Burton Sailing School, 424 Belleville St., Victoria, B.C.

COLORADO

The Yachtsman, 427 North 14th Street, Canon City 81212

CONNECTICUT

Milford Boat Works, One High Street, Milford 06460

FLORIDA

Good Life, Inc., 5128 W. Highway 98, Panama City 32401 Out Island Charters, Inc., 2535 N. W. 18th Terrace, Miami 33125 Sailboats South, 1900 South E. 15th Street, Ft. Lauderdale 33316

GEORGIA

Sailing Atlanta, 6002 Holiday Road, Buford 30518

HAWAII

Yacht Systems Hawaii, 1700 Ala Moana Blvd., Honolulu 96815



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<u>GEORGIA</u>

Sailing Atlanta, 6002 Holiday Road, Buford 30518

HAWAII

Yacht Systems Hawaii, 1700 Ala Moana Blvd., Honolulu 96815



ILLINOIS

Sailing Center of Chicago, 639 W. Madison, Oak Park 60302

INDIANA

King Marine, 927 Broad Ripple Avenue, Indianapolis 46220

LOUISIANA

Young's Yacht Sales, 424 South Roadway, New Orleans 70124

MARYLAND

Lippincott Sailing Yachts, Piney Narrows, Chester 21619

MASSACHUSETTS

Northrop & Johnson, 70 Front Street, Marblehead 01945 Sailing Yachts, Inc., 580 Providence Highway, Dedham 02026

MICHIGAN

Kalamazoo Sailing Center, 8340 Portage Road, Portage 49081 Sail Boats, Inc., 30137 S. River Road, Mt. Clemens 48043

MISSISSIPPI

England's Sailboats, 6960 Old Canton Road, Jackson 39211

MONTANA

Doc's Dockyard, 3906 Brooks, Missoula 59801

NEW JERSEY

Talbot Marine Sales, P. O. Box 174, Metuchen 08840

NEW YORK

McPherson Sailing Products, 1001 W. Seneca Street, Ithaca 14850 Willis Marine Center, Mill Dam Road, Huntington L.I. 11743 Yankee Yacht Sales, Diamond Point, Lake George 12824 Rowe Boats International, Morrisonville Road, Plattsburg 12901 R. C. R. Yachts, 223 Lockport Street, Youngstown 14174

NORTH CAROLINA

The Ship Yard, Foot of Neuse Drive, Oriental 28571

OHIO

LaSalle Yacht Sales, Inc., 1300 Parsons Ct., Rocky River 44166 Sailboats of Toledo, 6161 Summit Street, Toledo 43611

OREGON

Offshore Yachts, 3409 N. W. Marine Dr., Portland 97211

PUERTO RICO

Kiko Toro, Inc., 2165 General del Valle, Santurce 00913

RHODE ISLAND

Yachts East, One Division Street, East Greenwich 02818

TEXAS

Jay Bettis & Company, P. O. Box 643, Seabrook 77586 Sail 'N Gear, 712 N. Buckner Boulevard, Dallas 75218 The Sailboat Shop, 604 Highland Mall Boulevard, Austin 78741

VERMONT

Sailboats Unlimited, 46 Shore Acres, Winooski 05404

, VIRGINIA

Bluewater Yacht Sales, 529 Bridge Street, Hampton 23669

WASHINGTON

Offshore Yachts, Inc., 7200 Seaview Avenue N. W., Seattle 98117 WISCONSIN

Anchor Marine, Inc., North Bay Shore Drive, Sister Bay 54234

Cal Boats Limited Warranty CAL Boats warrants each new CAL sailboat manufactured by it to be free from defects in material and workmanship, under normal non-commercial use and service, for a period which shall expire on the sooner of 180 days after commissioning by the original retail purchaser, or one (1) year after the date of shipment by CAL Boats, subject to the terms and conditions stated below: 1. Warrantor - This warranty is granted by CAL Boats, a division of Bangor Punta Operations, Inc. at 200

- A Kalmus Drive, Costa Mesa, California 92626 and Boundary Road, Marlboro, New Jersey 07746.
- 2. Parties to Whom Warranty is Extended This warranty shall extend to any non-commercial buyer (other than for purposes of resale), and any non-commercial transferee, to whom such product is transferred during the duration of this warranty and who normally uses it for personal, family or household purposes. For CAL sailboats used commercially, this warranty will expire thirty (30) days after commissioning by the original purchaser.
- 3. Parts Covered All parts manufactured by CAL Boats, including the hull, the deck, and cabinetry are covered by this warranty, the installation work performed by CAL Boats on components not manufactured by it is also covered by this warranty.
 - 4. Parts Not Covered The following parts are not covered by this warranty:
 - (a) Masts, booms, plywood, external finishes (which includes paint and gelcoat), and upholstery; and,
 - (b) Engines, toilets, stoves, refrigerators, batteries, ignition systems, lighting devices, blowers, propellers, and other parts and equipment manufactured by others. CAL Boats will make available the warranties, if any, extended to it by other manufacturers.
- 5. Remedy If within the foregoing time period, any part or installation work included in this warranty proves to. be defective in material or workmanship, then the sole and exclusive remedy and CAL Boats' liability shall be, at CAL Boats' sole option, the repairing of the defective part or the replacement of same; parts and labor shall be at the expense of CAL Boats.
- 6. Procedure for Obtaining Performance Under this Warranty In order to obtain performance of the obligations under this warranty, the owner must promptly (within thirty (30) days of discovery of the defect) notify CAL Boats or an authorized CAL Boats service center of the defect, and at CAL Boats' or the authorized CAL Boats service center's direction, return the defective part or product to be repaired or replaced under this warranty to an authorized CAL Boats service center. If repair or replacement by an authorized CAL Boats service center is determined by CAL Boats to be impracticable, the owner shall return the defective part or product to CAL Boats at either of the addresses stated in No. 1 above. All transportation costs to and from the authorized CAL Boats service center or CAL Boats, and all haul-out and launching costs, will be at the expense of the owner.
- 7. Time Within Which Warranty Work Will Be Performed All warranty work will be performed by an authorized CAL Boats service center or CAL Boats within a reasonable time, generally within thirty (30) days after notification of the defect and delivery to an authorized CAL Boats service center or CAL Boats, subject to delays beyond CAL Boats' control.
- 8. Sole Remedy The remedy and liability for any breach of warranty, express or implied, set forth above is the sole and exclusive remedy and the limit of liability for any such breach.
- 9. Design Changes CAL Boats reserves the right to make changes in the design or material of its products without incurring any obligation to incorporate such changes in any product previously manufactured.
- 10. Exclusions and Implied Warranties This warranty does not extend to any defect due to the negligence of others, failure to operate or maintain the product in accordance with the operating and maintenance instructions furnished with each new product, unreasonable use, accidents, alterations, or ordinary wear and tear. ALL IMPLIED WARRANTIES, IF ANY, ARISING UNDER STATE LAW IN CONNECTION WITH THE SALE BY CAL BOATS OF ANY NEW CAL SAILBOAT ARE LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS, OR OTHERWISE WHICH EXTEND BEYOND THE FOREGOING WARRANTY. CAL BOATS SHALL NOT BE RESPONSIBLE FOR LOSS OF USE OF ANY PRODUCT, LOSS OF TIME, INCONVENIENCE OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES WITH RESPECT TO BUSINESS OR PROPERTY, WHETHER AS A RESULT OF BREACH OF WARRANTY, NEGLIGENCE OR OTHERWISE.