OWNER'S MANUAL
BENETEAU 343

HULL IDENTIFICATION NUMBER:
US-BEY

OWNER'S MANUAL BENETEAU PART #: 459335

TABLE OF CONTENTS:

RECEIPT

OWNER'S NAME ……..

ADDRESS ……..

……..

……Zip:……

Owner of the BENETEAU 343 number …….
Does certify that I have accepted delivery and read the information in the owner's manual delivered with the boat.

Signed on this____day of_____in the year_____, _____
Owners Signature

WARNING

The use of any boat or boat equipment and going to sea can be dangerous.

This manual is only a general maintenance guide, and it is not intended as an instructional manual on safety and seamanship. ***The safety and security of your boat and its passengers are solely the responsibility of the owner and/or the operator of the boat.*** Those not specifically and completely familiar with any particular aspect of the safe and appropriate operation of a boat (or any piece of boat equipment) must obtain lessons, gain knowledge and seek experienced advice, before proceeding to use a boat (or any piece of boat equipment). Your Beneteau dealer can advise you on the availability of boating courses, sailing lessons and professional instruction in your area.

Please keep this portion for your records

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RECEIPT

OWNER'S NAME : ……..

ADDRESS : ……..

……..

……Zip:……

Owner of the BENETEAU 343 number …….
Does certify that I have taken delivery and read the information in the owner's manual delivered with the boat.

Signed on this____day of_____in the year_____, _____
Owners Signature

Please return this portion to BENETEAU USA, Customer Service Dept, 1313 Hwy 76 West, Marion, SC 29571

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I) INTRODUCTION

Many parts and systems installed on your boat are supplied by other manufacturers and each carries a specific warranty and may require specific care. This manual supplements the literature supplied with the various equipment and we will refer to manufacture's literature throughout this booklet. We recommend referring to original manufacturer's literature whenever possible.

This manual is broken down into several sections that attempt to help explain your boat, your warranty, responsibilities as an owner, and maintenance of your new Beneteau. Some of the equipment described in this manual are offered as options. The systems and procedures described in this manual were correct to the best of our knowledge at the time of printing and may be changed at any time or may have been changed on your boat. While we have tried to describe the major points of your boat within this book, we cannot cover every detail. Owning a boat and the operation of it are complex issues that can only be mastered by vast experience and professional assistance. Please call your dealer or feel free to call us if any question should arise.

If you are a seasoned sailor much of the manual may be old news, and if this is your first boat, we hope this will prove useful, but we advise you to seek out professional instruction through your dealer, sailing schools, the US Coast Guard auxiliary, US Power Squadron, etc.

Should you need to contact Beneteau please use the following addresses and numbers, be sure to include your model and hull identification number with any correspondence.

Beneteau Customer Service
(Customer Service Dept.)
1313 Highway 76 West
Marion, SC 29571
Tel (843)-629-5300
Fax (843)-629-5329

We would like to sincerely thank you for choosing a Beneteau and we wish you good sailing.

NOTE: Specifications, dimensions, capacities and descriptions are estimations given for general information purposes, and they are not contractual in nature.

The users of this boat are advised that:

- The entire crew should receive appropriate training
- In some countries, a driving licence or an authorization is needed, or there are specific regulations in force.
- Always maintain your boat correctly and take into account deterioration resulting from time and significant or inappropriate wear of the boat.
- Any boat – however strong – can be severely damaged if improperly used. This is not compatible with safe boating. Always adjust the speed and direction of the boat to the state of the sea.
- If your boat is equipped with a life raft, carefully read its instruction manual. The crew should be familiar with the use of all safety equipment (harnesses, flares, life raft, etc.) and emergency safety operations (recovering a person overboard, towing, etc.), Coast Guard Auxiliary, Power Squadran, sailing schools and clubs regularly organise training sessions.
- Do not sail at maximum speed in zones of heavy traffic, or in case of reduced visibility, strong winds or big waves. Reduce the speed and wake of the boat, out of courtesy and for safety's sake for yourself and for others. Respect zones of speed and wake limits.
- Observe rules of priority such as defined by the rules of the road and imposed by the COLREGS (regulations for the prevention of collisions at sea).
- Make sure you always have sufficient distance to stop or maneuver as necessary in order to avoid a collision

EXPLANATION OF THE TYPOGRAPHY USED:

DANGER

WARNING

CAUTION

II) ANTI-FOULING

The primary function of your Beneteau is to maximize your boating pleasure. Your new Beneteau was made to last for many years. From the very beginning, care has been taken in building your boat. Your years of pleasurable ownership are dependent upon proper care and preparation.

Between the gel coat and the fiberglass laminate, Beneteau applied a Vinylester resin that greatly reduces the phenomenon of osmosis and osmotic blistering. All materials used in the construction of your Beneteau are of high production quality. Sampling of materials and operational standards are monitored so that the structural design matches the engineered standard. This, coupled with the mastery of building techniques, allows Beneteau USA to offer you one of the most favorable structural warranties in the marine industry.

Methodology for anti-fouling application when new:

1. Clean and degrease hull thoroughly using a denatured ethyl alcohol
2. Sand hull using sandpaper with a minimum grit of #220. (i.e., 220, 300, or 400)
3. Rinse with fresh water.

   DO NOT USE DETERGENTS. DO NOT PRESSURE WASH.
4. APPLY ANTI-FOULING TO MANUFACTURER'S DIRECTIONS.

NOTE: It cannot be emphasized enough that thorough de-waxing must occur. Furthermore, if the gel coat is abraded with coarse sandpaper, the water imperviousness will be destroyed, and the warranty might be voided.

III) LIMITED WARRANTY

Beneteau USA Inc. ("Beneteau USA") warrants to the original purchaser or any subsequent buyer during the time of this Limited Warranty (the "Owner"), that the boat, excluding parts or accessories not manufactured by Beneteau USA or Chantiers Beneteau, S.A., will be free from defects in material and workmanship for a period of ONE year from the date of the delivery to the original purchaser.

In addition, Beneteau USA warrants to the Owner, except for the prototypes and boats from the California series, that the hull and deck structure of the boat will be free from defects in material and workmanship for a period of FIVE years from the earliest of the following events: delivery of the boat to the original purchaser, first date of utilization, last day of the boat model year.

Beneteau USA's obligation under this warranty shall be limited to the repairing or replacing (or causing to be repaired or replaced), at Beneteau USA's option, the part or parts which are recognized defective by it in material or workmanship within the applicable warranty period to the exclusion of all other remedies. This Warranty shall apply only provided that the Owner presents the boat's Certificate of Origin and gives the selling dealer written notice of any claimed defect within 15 days after such defect is first discovered and satisfactory proof thereof. Warranty repairs do not result in a renewal or extension of the original Warranty for the boat or a part thereof. Transportation charges and duties shall be borne by the Owner.

This Warranty does not extend to: (1) any losses due to misuse, accident, disaster, abuse, neglect, normal wear and tear or improper maintenance; (2) boats or any part thereof which have been repaired or altered without Beneteau USA's prior written approval; (3) accessories or parts not supplied by Beneteau USA or Chantiers Beneteau, S.A., or, parts or accessories installed during the process of manufacturing that were not manufactured by Beneteau USA or Chantiers Beneteau, S.A., for which the Warranty will be the one provided by the supplier of the part or accessory; (4) damages resulting from any modification made to the boat; (5) boats for rental, lease, or charter; (6) splits, discoloration, or cracks in the gel-coat (hull, rudder, and deck); (7) disorders in the hull, or deck such as, without limitation, blisterings, which are caused by use of improper maintenance products or by improper sanding of the gel-coat; (8) anti fouling, varnishes, paints, acrylon, naugahyde, fabrics, headliners, chrome, anodized coatings, keel coatings, sails, cushions, or running rigging, as these items are subject to deterioration caused by climate, erosion, normal use conditions, or wear and tear; (9) reasonable and necessary maintenance, including, but not limited to, periodic re-bedding of chain plates, stanchion bases, windows and/or window frames, and winches; (10) damages or deterioration due to the non-observance of maintenance recommendations as described in the owner's manual or non-compliance with the normal rules of boat maintenance; (11) failure to take reasonable measures necessary to protect the boat; (12) any damage or deterioration to the boat resulting from participation in a competitive sporting event.

In addition, if (1) any structural damage to the boat is suffered as a result of any cause other than a defect in material or workmanship (whether or not such damage requires or results in any repairs to the hull or deck), or (2) any repairs or alterations to the boat of any nature whatsoever are made at a shipyard not approved in writing by Beneteau USA, then the five-year hull/deck Warranty set forth above will immediately thereupon terminate and be of no further force or effect.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER LIABILITIES ON BENETEAU USA's PART, AND BENETEAU USA NEITHER ASSUMES, NOR AUTHORIZES ANY PERSON, INCLUDING THE DEALER, TO ASSUME FOR IT, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF BENETEAU USA's BOATS.

Beneteau shall in no event be liable to the Owner or any other person or entity for damages of any kind, including but not limited to direct, indirect, special or consequential damages, arising from the sale or in connection with the use or inability to use the boat for any purpose whatsoever, irrespective of whether the claims or actions for such damages are based upon contract, tort, negligence, strict liability, warranty, or otherwise.

For the purpose of compliance with the Federal Boat Safety Act of 1971 and all notification procedures set forth therein, Beneteau USA requests that you complete the information requested below concerning your current address, which shall be returned to Beneteau USA by your Dealer.

Beneteau USA reserves the right, at any time, to make changes in design or additions to or improvements in the boats without liability or obligation to incorporate such change, addition, or improvement in any boat manufactured prior thereto.

This Warranty gives you specific legal rights. You may also have other rights which vary from state to state.

I hereby acknowledge that Beneteau USA Inc. Limited Warranty was attached to Dealer's purchase order in its entirety at the time that I purchased my boat from said Dealer; that I have read such Limited Warranty in its entirety; and that I have a copy of such Limited Warranty, as attached to Dealer's purchase order, for future reference.

_____ Boat Model _____
Signature

_____ Hull # _____
Purchaser's Name/Please Print Clearly

_____ Dealer _____
Mailing Address of Purchaser

_____ _____
City State Zip

_____ Date _____
(Area Code) Telephone Number

WARRANTY/REGISTRATION PROCEDURES

Warranty Procedure

Beneteau boats, unless specifically excluded, carry a one year limited warranty, as well as an extended hull and deck structural warranty (see official warranty form for details). As the first owner of your new Beneteau, your warranty only becomes valid upon receipt, by Beneteau, of the completed and signed warranty form. **It is important that you were presented with this document at the time of your contract with your dealer and that both you and your dealer have signed this form. Your warranty will then take effect upon delivery to you of your new Beneteau.**

Registration Procedure

As a new Beneteau owner you will automatically become a member of Club Beneteau. Club Beneteau will entitle you to many added benefits and advantages as well as providing you with a valuable line of communication with Beneteau. We will forward a new owner's package directly to 30 day after receipt of the completed and signed warranty form from your dealer.

Subsequent owners of Beneteaus are invited to become a member of Club Beneteau as well. We will automatically enroll these boat owners upon receipt of their warranty transfer cards.

In the event that you change your address, please fill out and mail in the change of address card at the back of the manual (to the address below) so that you will not miss any of Club Beneteau's opportunities. You can also find a change of address form on line under CLUB BENETEAU at www.beneteauusa.com.

If you have any questions concerning this procedure please feel free to contact Beneteau Customer Service at the number below.

Warranty Transfer

For a period of five years from date of manufacture, your new Beneteau has a transferable, limited hull and deck warranty. In the event of selling your Beneteau, the new owner must be registered with Beneteau within 30 days of the date of sale for the warranty to be transferred.

Please fill in the appropriate warranty registration card at the back of this owner's manual and mail it to:

Beneteau USA Inc.
(Customer Service Dept.)
1313 Highway 76 West
Marion, SC 29571
Tel (843)-629-5300
Fax (843)-629-5329

IV) HULL IDENTIFICATION NUMBERS

The hull identification or "BEY" number is a unique number given to your Beneteau alone. This number begins with "BEY" which has been assigned to Beneteau by the USCG followed by an alpha-numeric code which details the model, serial no., month of construction, year of construction and model year.

Please clearly identify your boat using your model and "BEY" number during any correspondence with Beneteau.

Your boat identification number appears in two places:

The main hull identification number is located on the aft starboard side, near the transom, stamped into the hull, approximately 2 inches below the toerail.

The second hull identification number is in a hidden area for anti-theft purposes.

V) DEALER'S RESPONSIBILITIES

Your Beneteau Dealer is an independent sales agency and they are a part of a worldwide distribution network, with dealers in dozens countries. A Beneteau Dealer has certain obligations to you as the customer and to Beneteau as an authorized sales agency. A Dealer's responsibility does not end with the sale of your boat. Your Dealer is responsible for the following:

- Delivering your new Beneteau to you complete, as ordered in your purchase agreement.
- Preparation of your boat for commissioning by their personnel, or another boat yard contracted by them to accomplish the correct commissioning procedures.
- Checking of all systems on the boat for fit, proper function and to familiarize you with the usage of each system.
- Sea trial of your new Beneteau with you as a final verification that all systems are in good order.
- Providing customer support and spare parts after you take delivery and any warranty service under the terms of the limited warranty. All warranty questions/claims or processing should be directed through your dealer.

VI) OWNER'S/OPERATOR'S RESPONSIBILITIES

STATE REGISTRATION OR FEDERAL DOCUMENTATION

For State Registration please consult your Dealer or the State offices in charge of boating, who can provide the correct governmental department handling registration in your state. Your Dealer also should be able to advise you on the possibility of Federal Documentation with the US Coast Guard.

SAFETY AND MAINTENANCE

For maximum enjoyment of your Beneteau, due respect should be given to proper safety and maintenance procedures.

Be sure that your boat is operated according to the U.S. Coast Guard Regulations as outlined in the "Federal Requirements for Recreational Boats". Please familiarize yourself with all operating requirements.

Prepare yourself for any situation before going out on the water. Follow the instructions provided in the sections of this owner's manual, the individual supplier instruction manuals, and all applicable U.S. Coast Guard and other regulations. If you are not an experienced sailor, you should complete an accredited sailing course.

Before leaving the dock, be sure that all your equipment is in working order, that you are aware of the weather conditions, and someone ashore is familiar with your destination or sailing activities.

MANDATORY COAST GUARD SAFETY EQUIPMENT

Many safety items are required for compliance with the U.S. Coast Guard regulations. Note that these regulations are subject to change. It is the owner's responsibility to be aware of current regulations as outlined in the "Federal Requirements for Recreational Boats". For your convenience a copy is included with your vessel's documentation, and additional copies may be obtained by calling the U.S. Coast Guard Boating Info line at (800) 368-5647 or www.uscgboating.org/safety/publications. Many required and recommended safety items must be purchased separately as they are not standard

Good safety equipment should be a priority of every sailor for the protection and comfort of passengers. Passengers aboard should be made familiar with the safety equipment and operation of the boat in the event of an emergency.

Depending on the length, passenger capacity, and operating conditions, your boat must be equipped according to the current USCG requirements. Be sure that you operate your boat with the necessary number of life preservers, fire extinguishers, signaling devices, distress signals, navigation lights as referred to in the "Federal Requirements for Recreational Boats."

RECOMMENDED SAFETY EQUIPMENT

Preparation is the key to safety on the water.

Your new Beneteau has been fitted with the following equipment:

- Compass - be sure that it is properly calibrated to give the correct magnetic reading.
- A large capacity bilge pump.

We recommend that you fully outfit your Beneteau with safety equipment that can be obtained through your dealer or marine supply outlets. These items should include but not be limited to:

- Up to date nautical charts covering your intended cruising area.
- Boat hook.
- Large waterproof flashlight with spare batteries.
- Fenders.
- Docking lines - a good rule of thumb to follow dictates that your bow, stern, and spring line be equal to the length of the boat.
- Life jackets, anchor, anchor chain and line, throwing line, flares, soft wooden plugs for thru-hulls, life ring, fire extinguisher, and foghorn.
- Electronics - Depth Sounder, Log Speedometer, and VHF Radio.

SAFETY COURSES

It is recommended that owners and operators gain knowledge and experience in boat safety skills such as:

(a) Navigation
(b) Seamanship and boat handling
(c) Rules of the road, international and inland waterway
(d) Weather prediction
(e) Safety at sea
(f) Survival in bad weather
(g) Respect for others on the water
(h) First aid
(i) Radio communication
(j) Distress signals
(k) Pollution controls

To find out where one can attend these courses in your area, please call your dealer or "The Boaters Educational Course Line" at (800) 336-2628 or www.uscgboating.org/safety/courses .

ANCHORING

Various sea and bottom conditions require different anchoring systems. Your dealer can help in choosing rode size and length, anchor chains, and working and storm anchors most appropriate for your boat and location.

In general, a minimum of two anchors should be carried at all times and enough anchor rode and chain necessary for the depth of water to be navigated during storm conditions.

Certain anchors are useful for a variety of bottom conditions. Study the charts of the area to be navigated for information concerning bottom conditions and water depth.

The greatest hazard with a sound permanent mooring is chafe, which can occur to the rode at the bow chocks. This is the single most common site of failure. Care is advised in the selection and protection of the rode pennant with appropriate chafing gear. Careful and regular inspection of moored boats on a regular basis is necessary to ensure the boat's safety.

ADDITIONAL SAFETY EQUIPMENT

A number of additional safety items are worthy of your consideration. These range from safety harnesses to emergency beacons, life rafts, and survival suits. Their use depends upon the intended use of the yacht. We suggest you investigate the necessity of these items through discussion with your dealer or local chandler.

MEDICAL KIT

Every yacht should carry a first aid manual, and a medical kit tailored to the specific needs of the owner. Any ship's store should carry a standard type medical kit. Items in the kit should include but not be limited to the following:

- Aspirin
- Adhesive strips and tape
- Antiseptic wipes
- Gauze bandages
- Sunscreen first aid/burn cream
- Sterile pads
- Ace bandages & splints
- Motion sickness pills
- Ammonia inhalants
- Antiseptic germicide ointment
- Zinc oxide ointment
- Insect/bee sting relief ointment/spray
- Cold packs for sprains
- Scissors & tweezers

TOOL KIT

A basic kit should consist of:

- Wrenches - adjustable, Metric and SAE open end, box, and socket
- Hammers - large and small
- Knife - with marlinespike
- Screwdrivers - large and small, standard and Phillips
- Pliers - regular, cutting and needle nose, vise grips
- Wire cutter - capable of cutting standing rigging
- Hacksaw - with spare blades

SPARE PARTS

A basic kit should consist of the following:

- Standing and Running Rigging: Turnbuckles, monel seizing wire, clevis and cotter pins, shackles, blocks, extra line, rigging tape, duct tape.
- Fasteners: Assortment of stainless steel screws, nuts, bolts, and washers
- Hose clamps.
- Electrical: Electrical tape, wire, crimps on lugs, spare navigation light bulbs.
- Lubricating supplies: WD-40 and silicone grease.
- Engine: Check engine manual for spare parts, engine oil and transmission fluid recommendations.
- Sails: Sail repair kit and sail slides.

VII) SAFE OPERATION AND WARNING LABELS

Ensure that the boat operator is not under the influence of drugs and/or alcohol.

Do not venture out in weather or sea conditions beyond the skill or experience of the operator.

There are "Warning" and "Caution" statements affixed to your Beneteau. These are detailed below with location:

FUEL WARNING LABEL

- Affixed to the fuel tank.

Beneteau Part #111358

SHORE-POWER LABEL

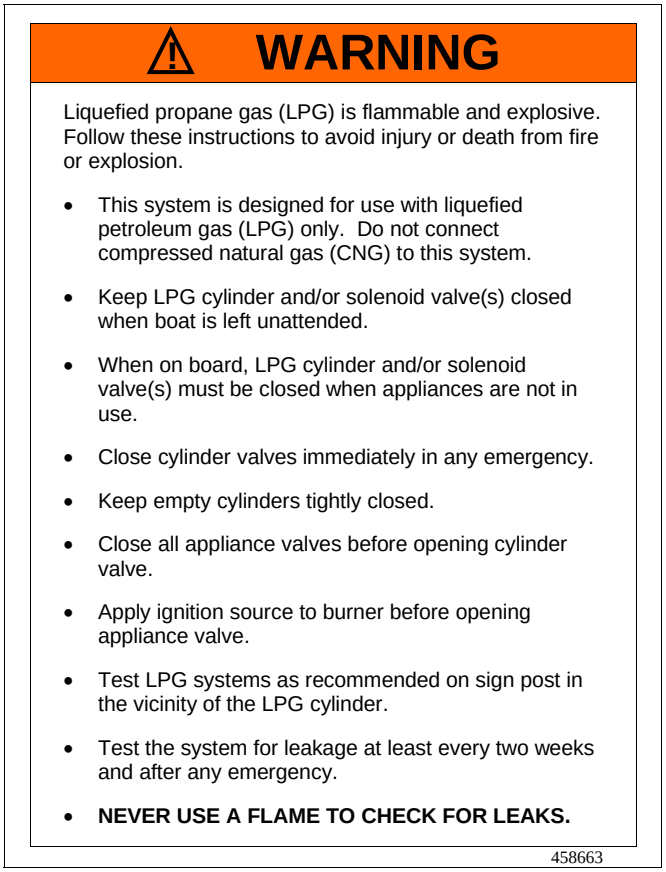
- At the 110V distribution panel.

Beneteau Part #111359

PROPANE LABELS

- At the propane stove affixed to the bulkhead in the galley

Beneteau Part #458663



Beneteau Part #458661

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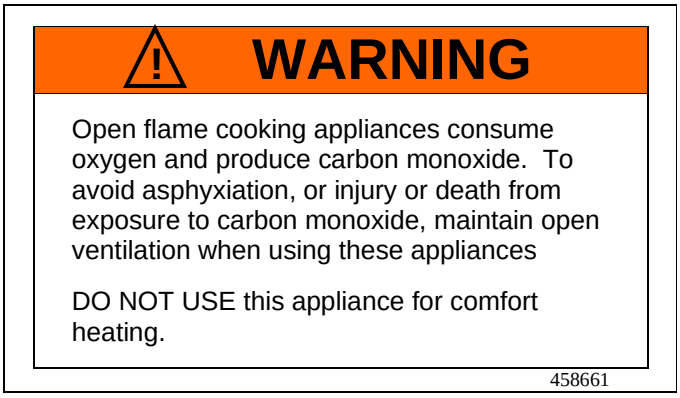
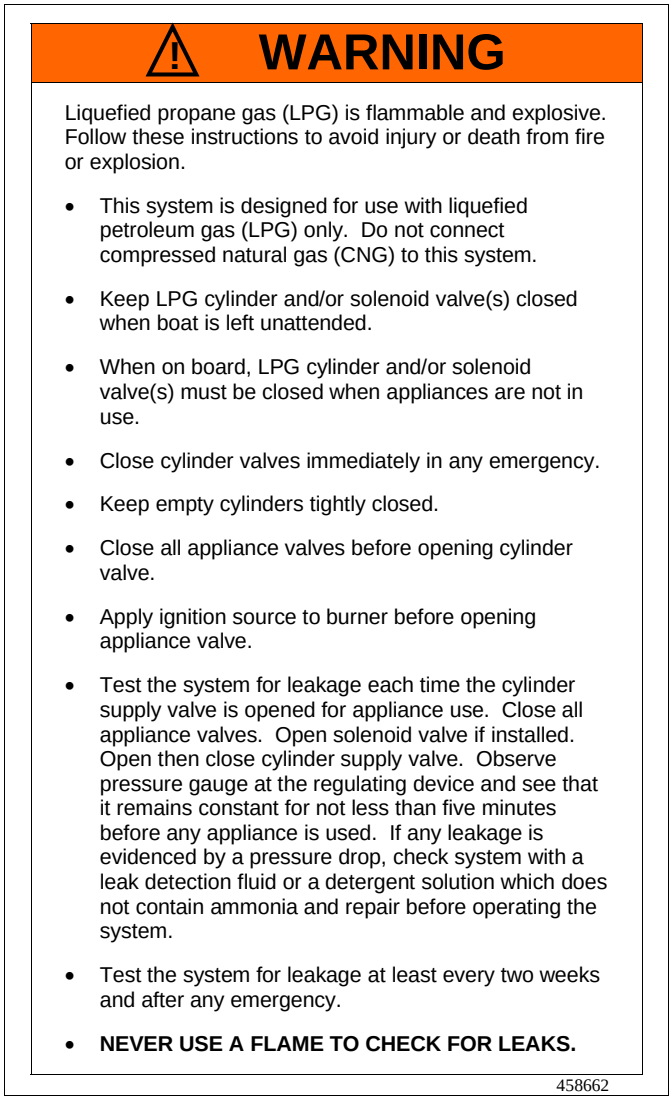


In the propane locker affixed under the propane locker lid
(

Beneteau Part #458662



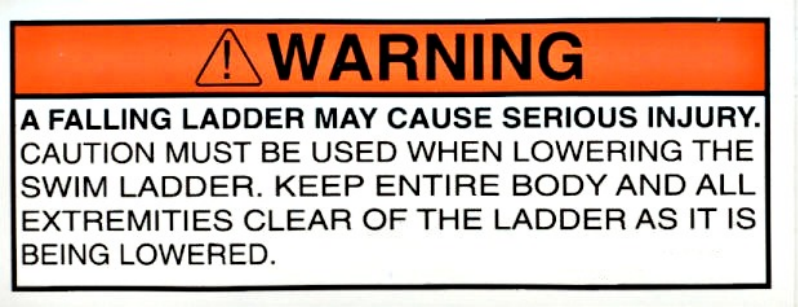
- On or next to the LP Gas Line

Beneteau Part #111361

SWIM LADDER WARNING LABEL

- Located on the transom

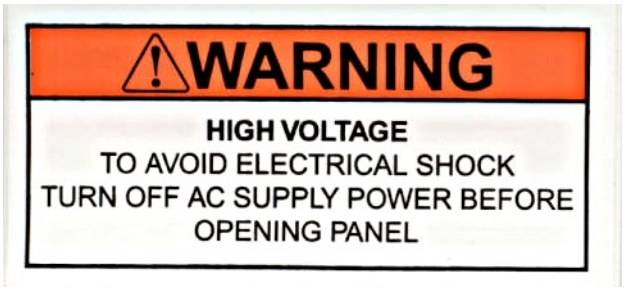
Beneteau Part # 111354



HIGH VOLTAGE WARNING LABEL

- Located beside the 110v electric panel.

Beneteau Part #111365



TRANSOM DOOR WARNING LABEL

- Located on or next to the helmsman's seat. (Not applicable on all models)

Beneteau Part #111362

STANDARD BATTERY SWITCH LABEL

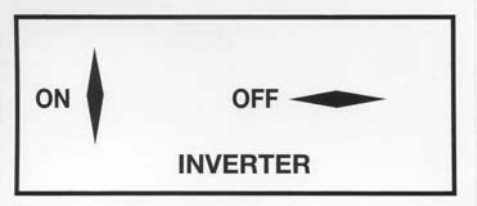
- Located at the standard battery switches.

Beneteau Part #111363

OPTIONAL INVERTER BATTERY SWITCH LABEL

- Located at the battery switches

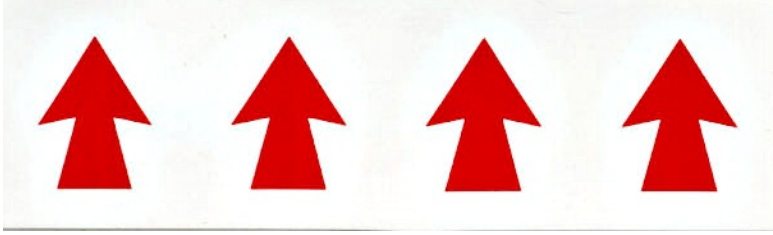
Beneteau Part #112624 (Not applicable on all models)



SLING LOCATION ARROWS LABEL

- Located at or near the hull to deck joint

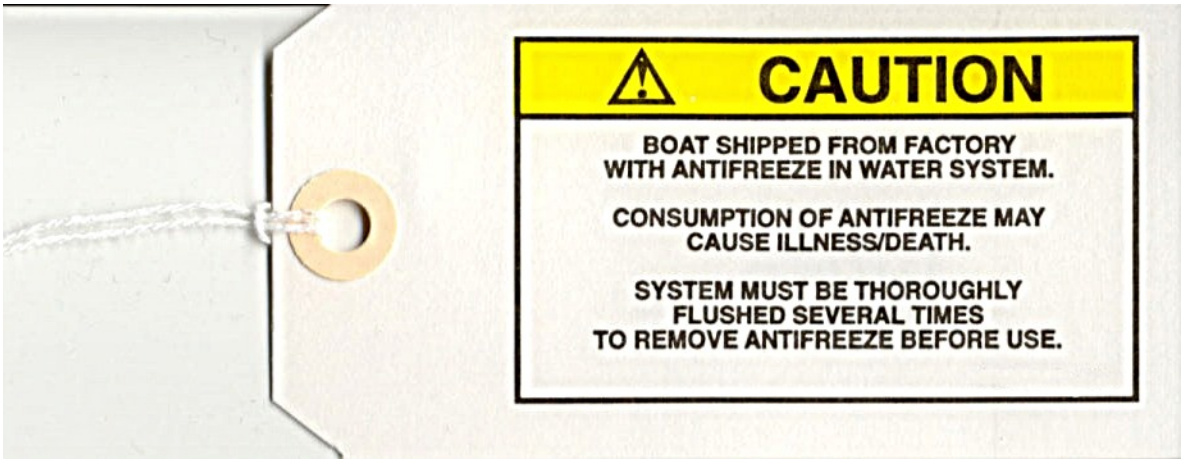
Beneteau Part #111364



ANTI FREEZE CAUTION TAG

- Tied to the breaker for the water

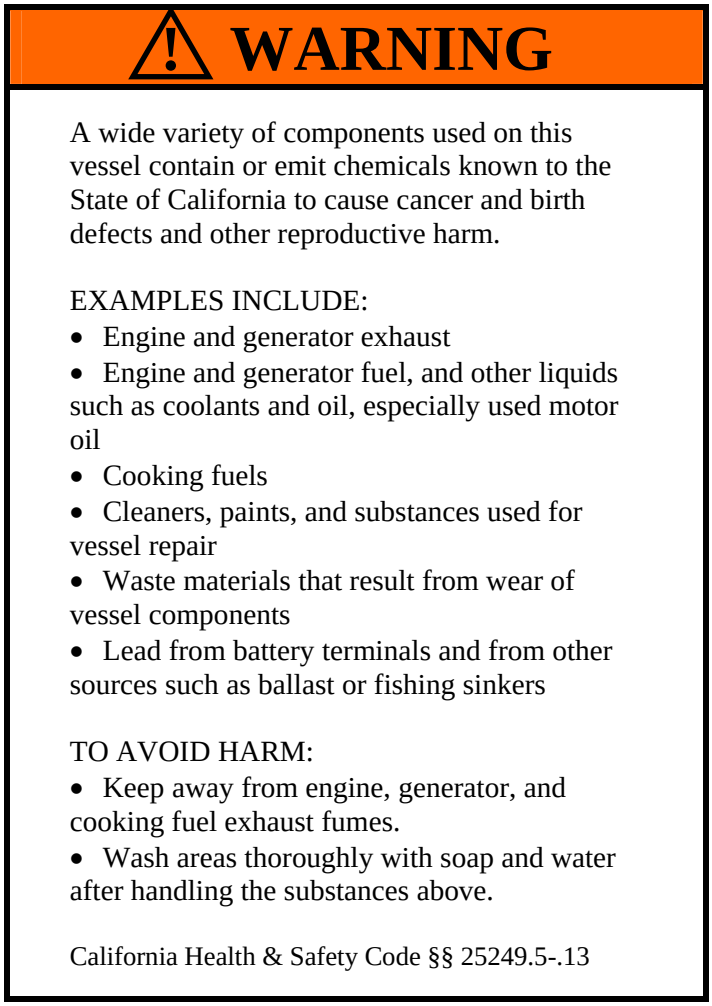
Beneteau Part #111046



PROPOSITION 65 WARNING

- Located at main electric panel

Beneteau Part #458225



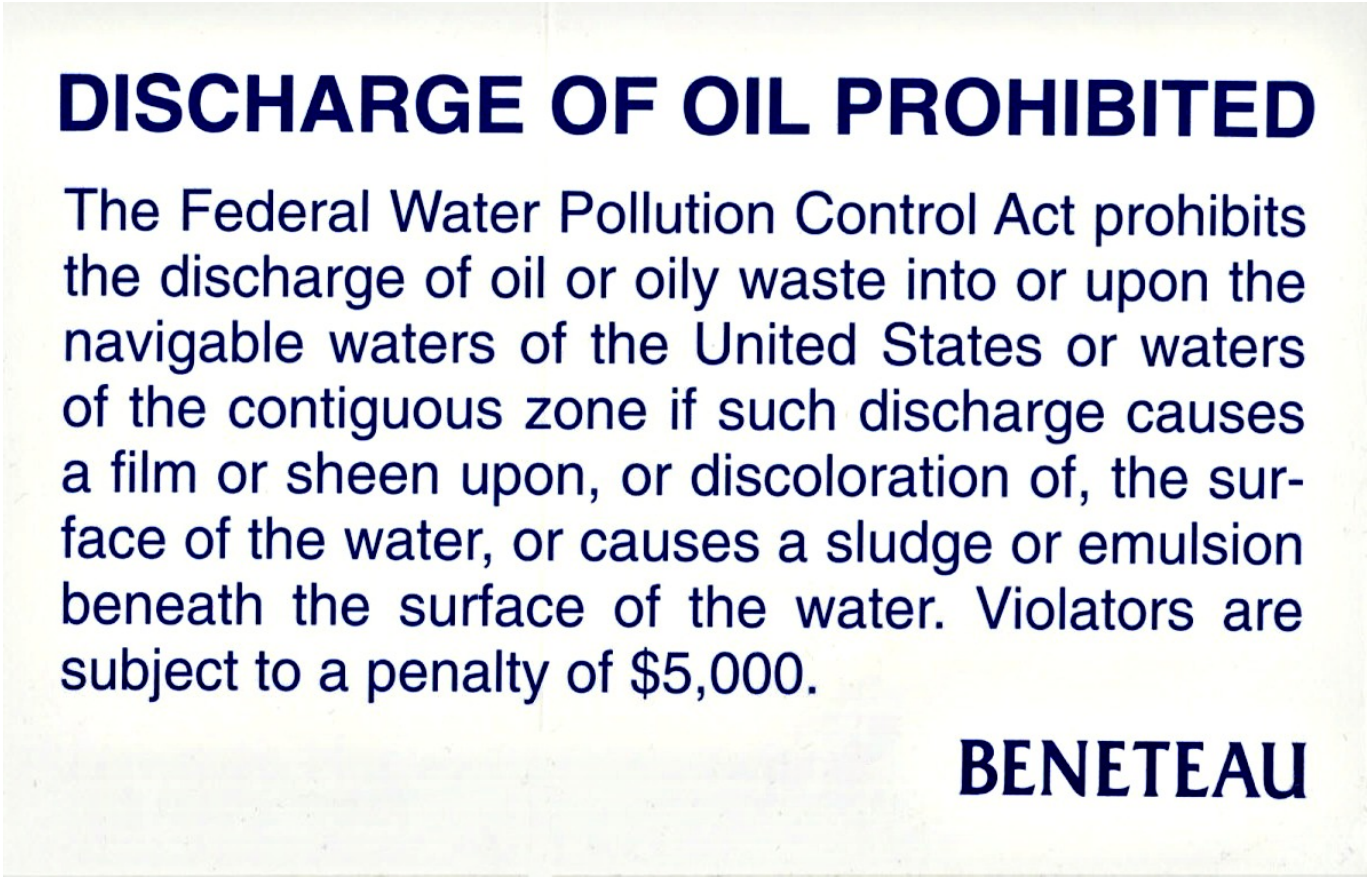
BENETEAU # 458225

VIII) FEDERAL/STATE REGULATIONS

DISCHARGE OF OIL

- Located: under the sail locker lid.

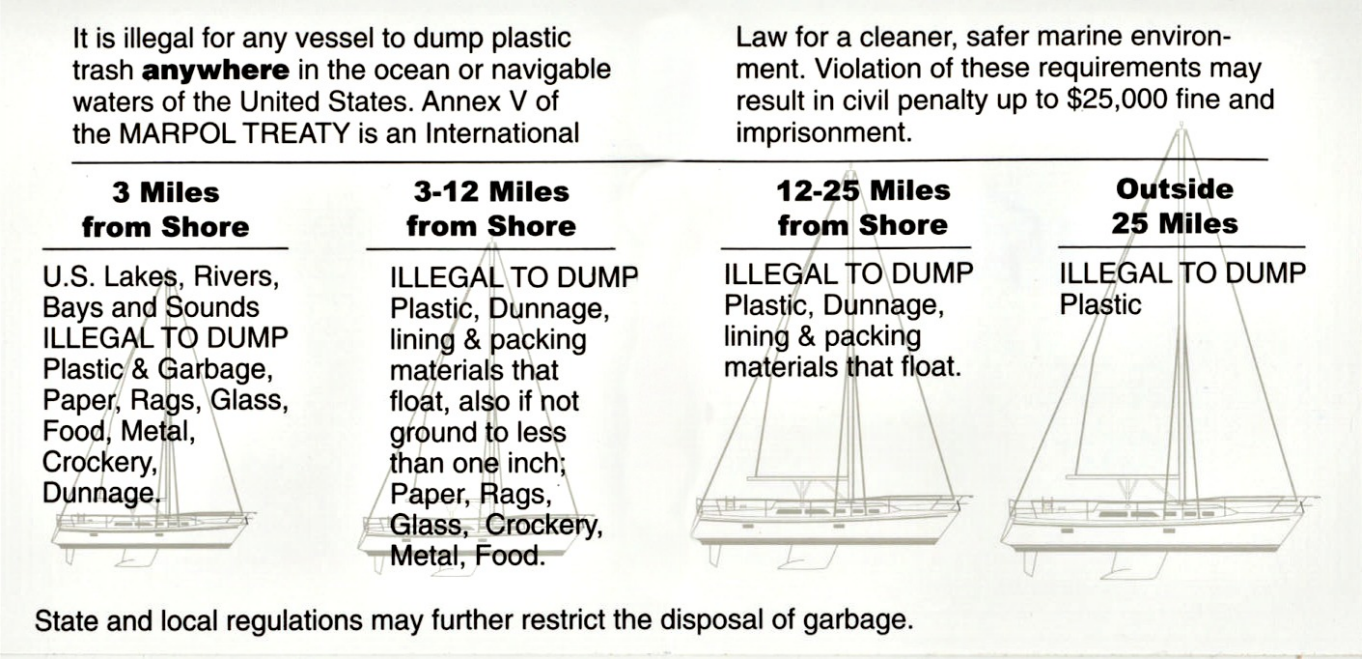
Beneteau Part #111352



SOLID WASTE DISPOSAL

- Located under the sail locker lid.

Beneteau Part #111356



MARINE SANITATION

Your Beneteau is equipped with an USCG approved marine head and holding tank.

By law you must use a holding tank in all U.S. waters, Check with local authorities for regional laws governing your area before selecting the overboard discharge option.

ACCIDENT REPORTING

Knowledge of accident reporting requirements. Please refer to the following list for a copy of the U.S. Coast Guard Boating Accident form. For further information on where to obtain more forms, please call the U.S. Coast Guard Boating Safety Hotline at (800) 368-5647

NATIONAL VESSEL DOCUMENTATION CENTER
2039 STONEWALL JACKSON DR.
FALLING WATERS, WV 25419
TOLL FREE: 1-800-799-8362
PHONE: (304) 271-2400
FAX: (304) 271-2405

RENDERING ASSISTANCE

United States Code, Title 46:

"The owner or operator of a vessel is required by law to render assistance to any individual or vessel in distress, so long as his vessel is not endangered in the process."

IX) COMMISSIONING

COMMISSIONING PROCEDURES

The first commissioning of a yacht is essentially the start of its life, and the importance of proper commissioning procedures at this time cannot be overstated. The first commissioning procedure must be performed by an authorized Beneteau dealer or those authorized by them. The dealer will also have a commissioning checklist to be signed by the owner and a dealer representative at the time of the first commissioning. The owner also needs to concern himself with items such as safety equipment, which is considered to be his responsibility. See the Owner's Operator's Responsibilities section for details.

Lists of the pre-launch and post-launch checks employed during commissioning are provided in this section for those owners interested in understanding the commissioning procedure, as well as for future use in any recommissionings that may be required after periods of wet or dry storage. The lists are of a general nature and do not attempt to provide step-by-step instructions.

The following is a list of <u>minimum</u> commissioning duties. Additional operations may be required dependent upon the model & equipment

PRIOR TO LAUNCH

_____ All accessories & options supplied per shipping list and boat order
_____ Check hull and repair any shipping damage - aft end of keel, rudder, etc.
_____ Prep bottom and apply bottom paint if needed.
_____ Thru hulls inspected and closed.
_____ Clean hull thoroughly.
_____ Check clamps on all thru hulls below waterline.
_____ Wax hull topsides.
_____ Dock lines and fenders aboard.
_____ Check tightness of nuts on prop shaft and zinc. (Folding props require additional steps).
_____ Check steering system (rudder moving freely stop to stop and does not touch hull?).
(Hydraulic steering requires all fittings be checked and the system is bled)
_____ Zincs installed.
_____ Thru hulls unobstructed and speed/log impeller in place (if applicable).
_____ Fuel valve turned ON.
_____ Check keel bolts for tightness.

OPERATIONS AFTER LAUNCH

_____ No water leaks, stuffing box, shaft log, strut, rudder post.
_____ No leaks at thru hulls; all hose clamps secure with seacocks open.
_____ Fill water tanks, no leaks at fill pipes, overflows or connections.
_____ Fill fuel tank.
_____ Batteries secured, connected, filled and charged.
_____ Check all cabin lights.
_____ Check all navigation lights.
_____ Water pressure system - air bled, no leaks at connections.
_____ Check electric sump pumps and bilge pump.
_____ Check manual bilge pump
_____ Check emergency tiller fit.
_____ 110V shore power polarity ok and breakers on
_____ Battery charger ok.
_____ Hot water heater works-must be filled before turning on.
_____ Check head(s) operation and holding tank(s) for leaks.
_____ Test wash down pumps, refrigeration, heaters, etc.
_____ Test stove and LPG tank for leaks and proper operation
DO NOT TEST FOR LEAKS WITH AN OPEN FLAME, WIPE EACH JOINT WITH A SOAPY SOLUTION AND LOOK FOR BUBBLES

ENGINE START-UP

_____ Check transmission for proper fluid and proper level.
_____ Check crankcase dipstick for proper fluid and proper level.
_____ Check shift and throttle cables for proper adjustment and secure end fittings.
_____ Engine alarms work when key is on.
_____ Open engine water intake.
_____ Start engine, check gauges and water flow at exhaust is normal.
_____ Check water level in heat exchanger and expansion tank.
_____ Check belts and mounts.
_____ Run engine at operating temperature. Note temperature _____degrees.
_____ No engine or fuel line leaks-no chafe problems with wires.
_____ Forward and reverse gears operate.
_____ After warm-up, shut engine down, check oil, and fluid levels again.
_____ Alignment to under .003 - coupling bolts tightened.
_____ Idle set correctly , engine won't stall when put in gear. Idle set at _____ RPM.
_____ Allow engine to run for at least (1) hour.
_____ No leaks at the shaft seal.
_____ Shift and throttle operate smoothly with engine running.
_____ No leaks at keel bolts after engine run.
_____ Test run boat, check all operations of shifting, controls etc.
_____ Maximum RPM in gear _____.

PRIOR TO STEPPING MAST

_____ Clean or wax spar.
_____ Mast sheaves free running.
_____ Run halyards if necessary– Make sure you have clean hands on clean ground.
_____ Attach and secure all stays and shrouds.
_____ Attach and secure spreaders to mast and upper shrouds.
_____ Check boom gooseneck fitting.
_____ Install mast boot on spar if applicable.
_____ Check all mast lights.
_____ Attach and secure boom topping lift.
_____ Check running lights and electrical connections.
_____ Protect against chafe on spreader ends and any fitting.
_____ Check sail track for burrs.
_____ Turnbuckles attached.
_____ Re-check all pins, cotters, and Locktite any shackles.
_____ Check with salesman and work order for additional mast gear.
_____ Furling system built and connected to mast

(LIFT MAST WITH SOFT STRAP AT ITS BALANCE POINT)

AFTER STEPPING MAST

_____ Protect spar from scratching on mast collar on keel stepped masts.
_____ Turnbuckles lubricated.
_____ Attach standing rigging to chain plates.
_____ Chock mast partner and seal mast boot on keel stepped masts.
_____ All mast wiring connected.
_____ Preliminary tune - spar straight - shrouds proper tension.
_____ Run reefing lines and halyards.
_____ All cotter pins in place on turnbuckles and opened.
_____ Run main sheet and attach topping lift.
_____ Tape chain plates and cotter pins to prevent chafe.
_____ Check and double-check all turnbuckles, cotter and clevis pins.

PRIOR TO DELIVERY

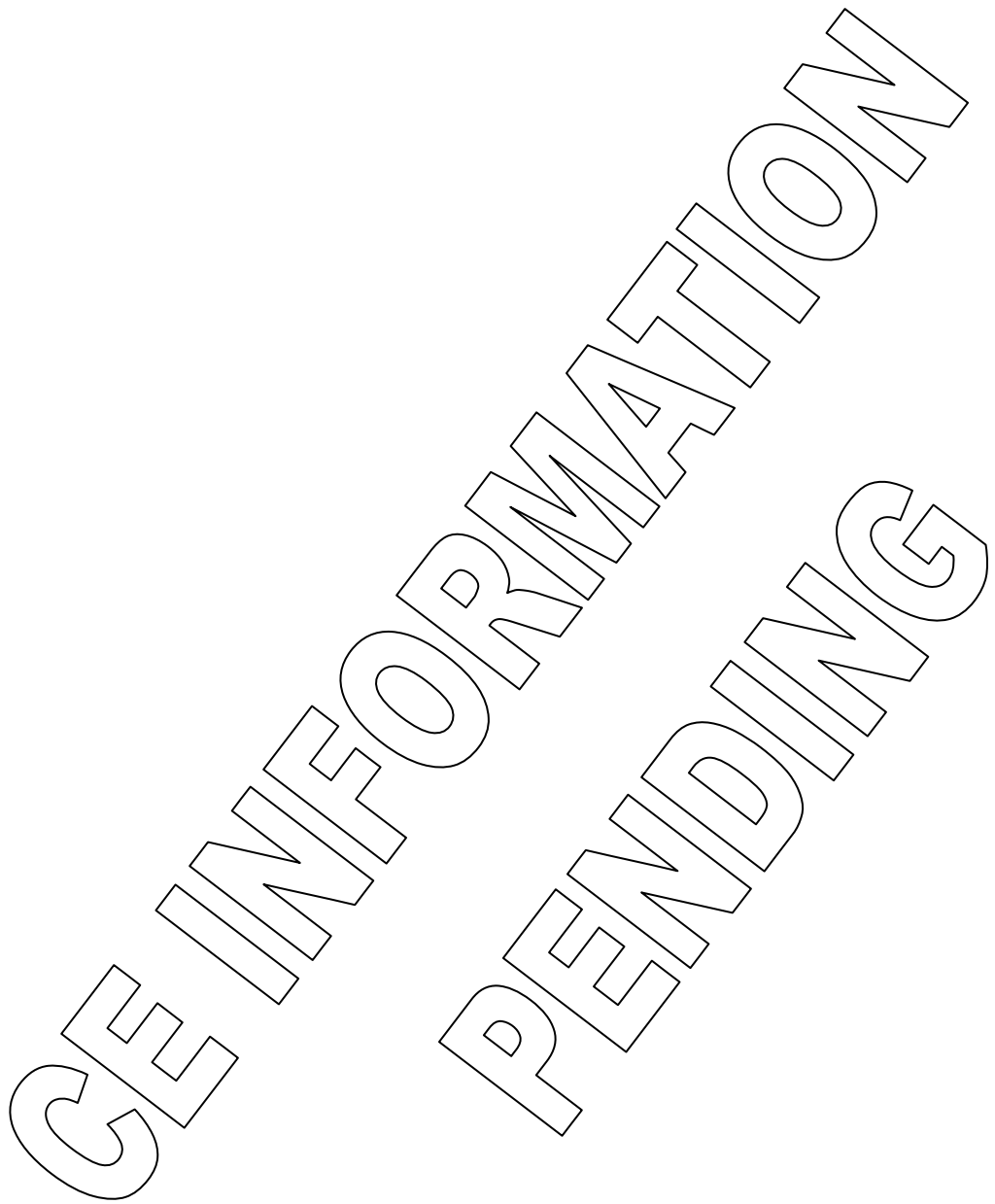
_____ Hose test all ports, deck hardware, chain plates, and stanchion posts for leaks.
_____ Tighten lifelines and tape split rings.
_____ All doors, drawers, floorboards, hatches, and cabinets operate freely - fit if necessary.
_____ Clean thoroughly: sinks, bulkheads and counter tops, all lockers and drawers, bilge, cushions, deck and cockpit lockers.
_____ Dry the bilge completely.
_____ Clean and oil exterior teak if needed.
_____ Clean cabin sole, deck area and ports.
_____ All Coast Guard and safety gear aboard.
_____ Sails bent on, ALL HEADSAILS (AND MAINSAIL) FIT FURLING. Operate freely.
_____ All electronics and optional gear tested and working.

DELIVERY TO OWNER

_____ Walk through the boat with manuals and owner, showing operation of all components.
_____ Test sail boat with owner showing all operations.
_____ Fill out warranty certificates.

X) SPECIFICATIONS OF THE BOAT

Type	BENETEAU 343
Name of Builder	BENETEAU USA INC.
Design Category.....	CE INFORMATION PENDING
No. of acknowledged body.....	CE INFORMATION PENDING

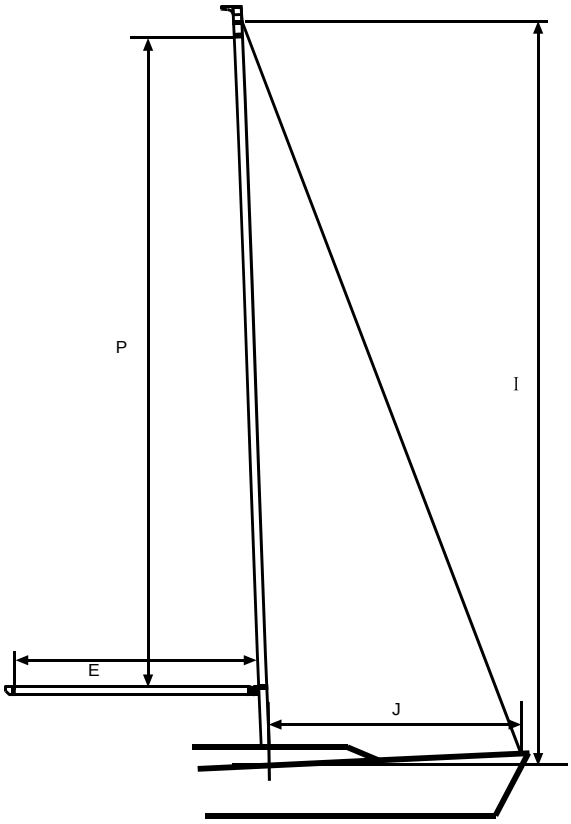

CE INFORMATION
PENDING

XI) SAILS AND RIGGING

SPECIFICATIONS OF THE SAILS:

SAIL	AREA	
	Roller furling main	Classic main
Total	58.8 m^2	62.6 m^2
Mainsail	24.4 m^2	28.2 m^2
Genoa (140%)	34.4 m^2	34.4 m^2

Roller furling mast			Classic mast		
I	13.24	m	I	13.24	m
J	3.90	m	J	3.90	m
P	11.78	m	P	11.93	m
E	4.14	m	E	4.14	m



Maintenance of the Rigging

- Check the standing and running rigging regularly, and at least once per year.

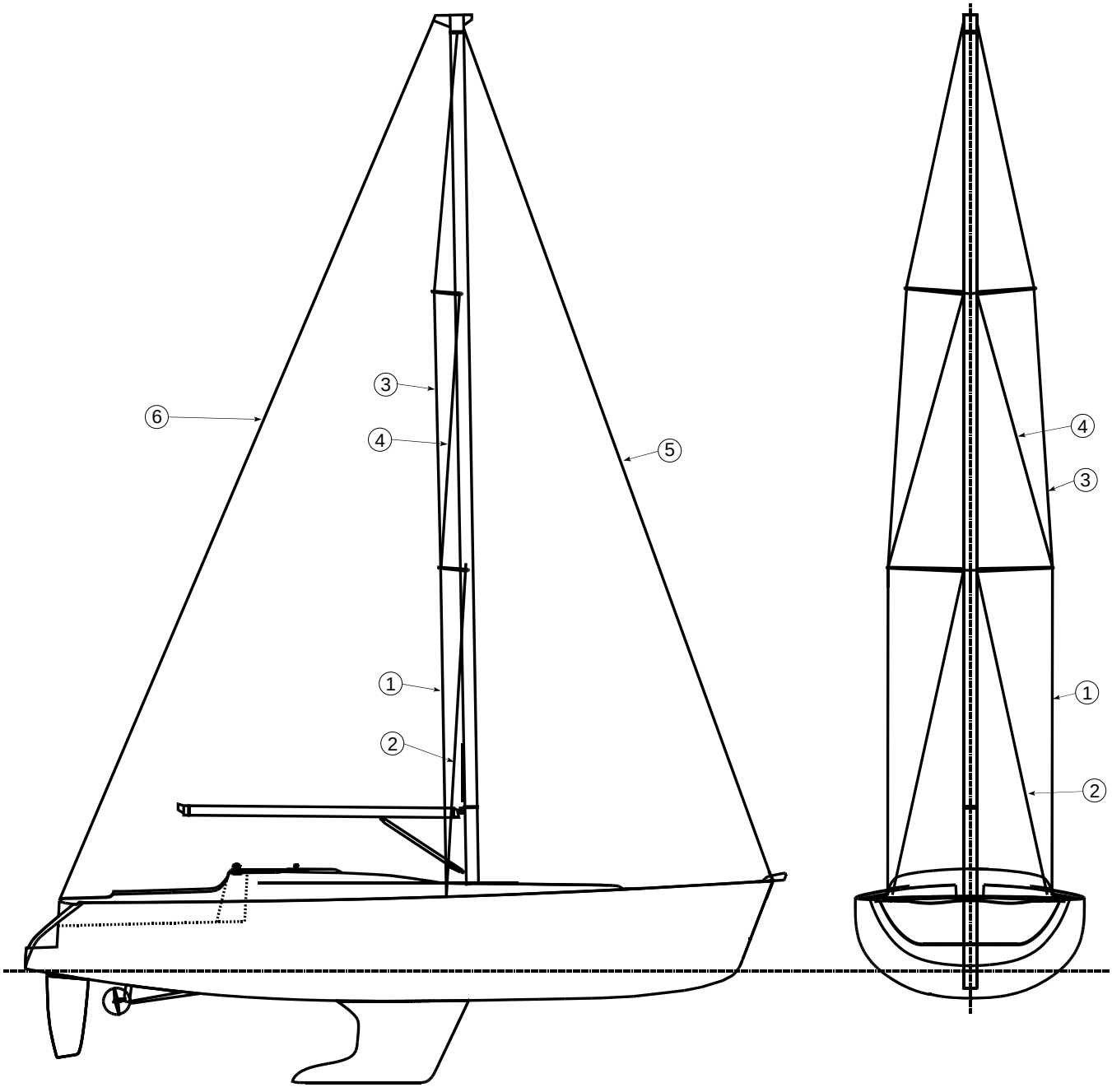
For wire cables:
- Change them as soon as the first frays appear
- Check for corrosion, especially at the terminals with rigging screws.
- Check the good condition of swages and rigging screws.

For synthetic cables (Kevlar, Twaron, etc.) used for running backstays, halyards, sheets, docklines, etc.:
- Change as soon as signs of fray or wear appear.
- Regularly check the other elements of the rigging; sheets, docklines, etc. ; and replace if worn.

Specifications of the Standing Rigging:

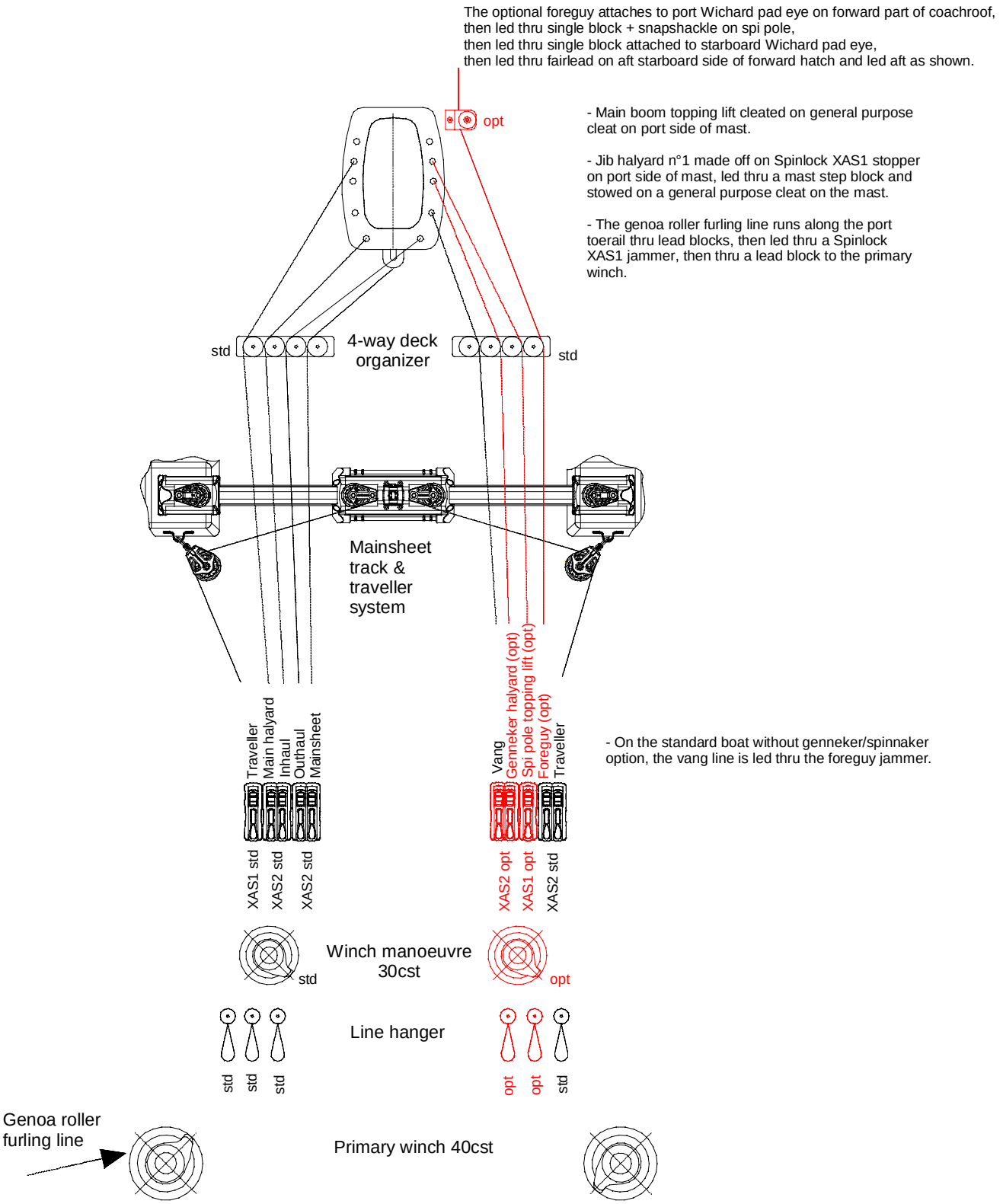
V: VERTICAL - D: DIAGONAL

REF	CABLE	
1	V1 (Shroud)	
2	D1 AFT (Aft Lower Shroud)	
3	V2D3 (Upper Shroud)	
4	D2 (Intermediate)	
5	Forestay	
6	Backstay	



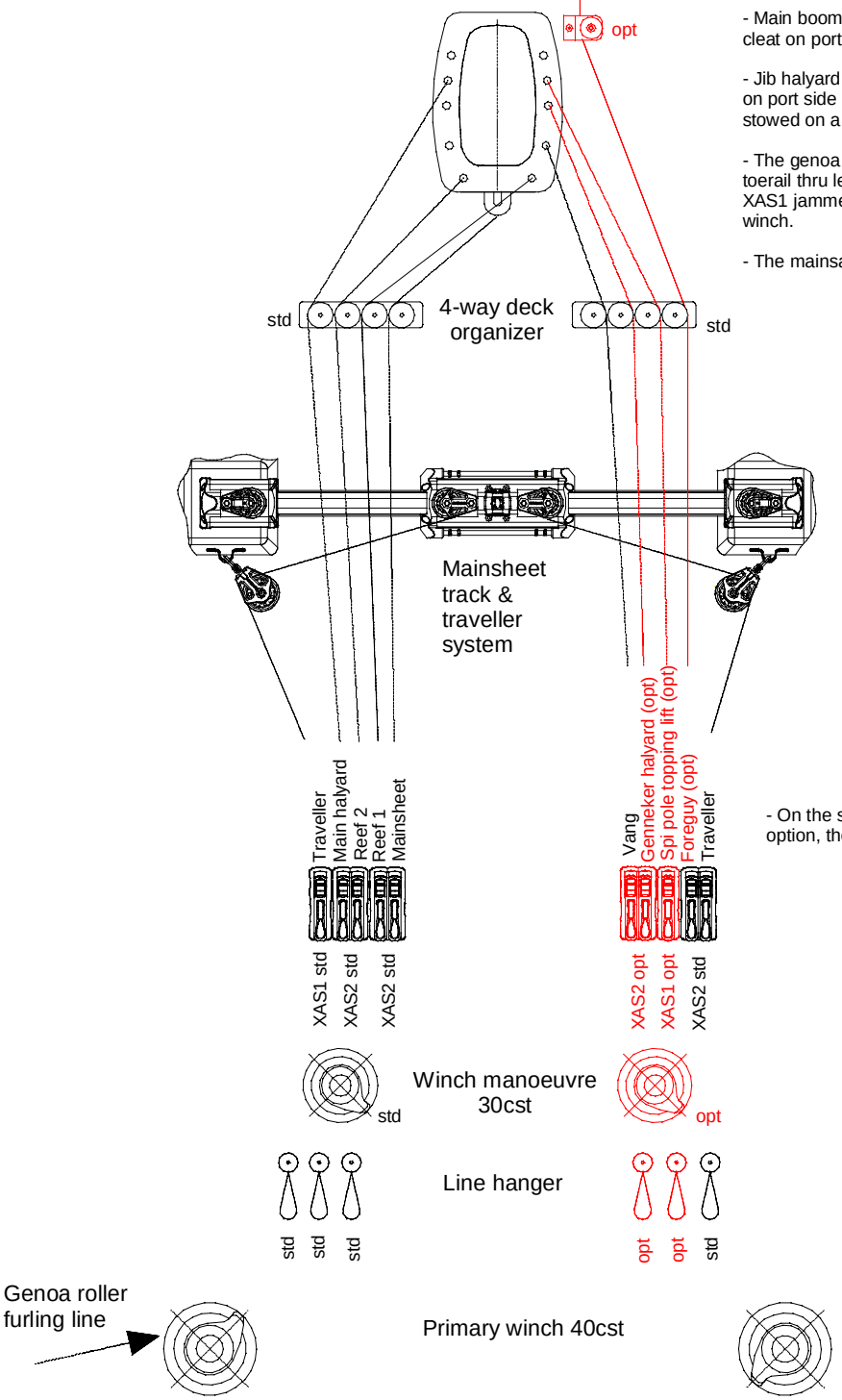
DECK LAYOUTS

DECK LAYOUT FOR ROLLER FURLING MAST (STANDARD) + OPTIONAL GENNEKER



DECK LAYOUT FOR CLASSIC MASS (OPTION) + OPTIONAL GENNEKER

The optional foreguy attaches to port Wichard pad eye on forward part of coachroof,
then led thru single block + snapshackle on spi pole,
then led thru single block attached to starboard Wichard pad eye,
then led thru fairlead on aft starboard side of forward hatch and led aft as shown.



- Main boom topping lift cleated on general purpose cleat on port side of mast.

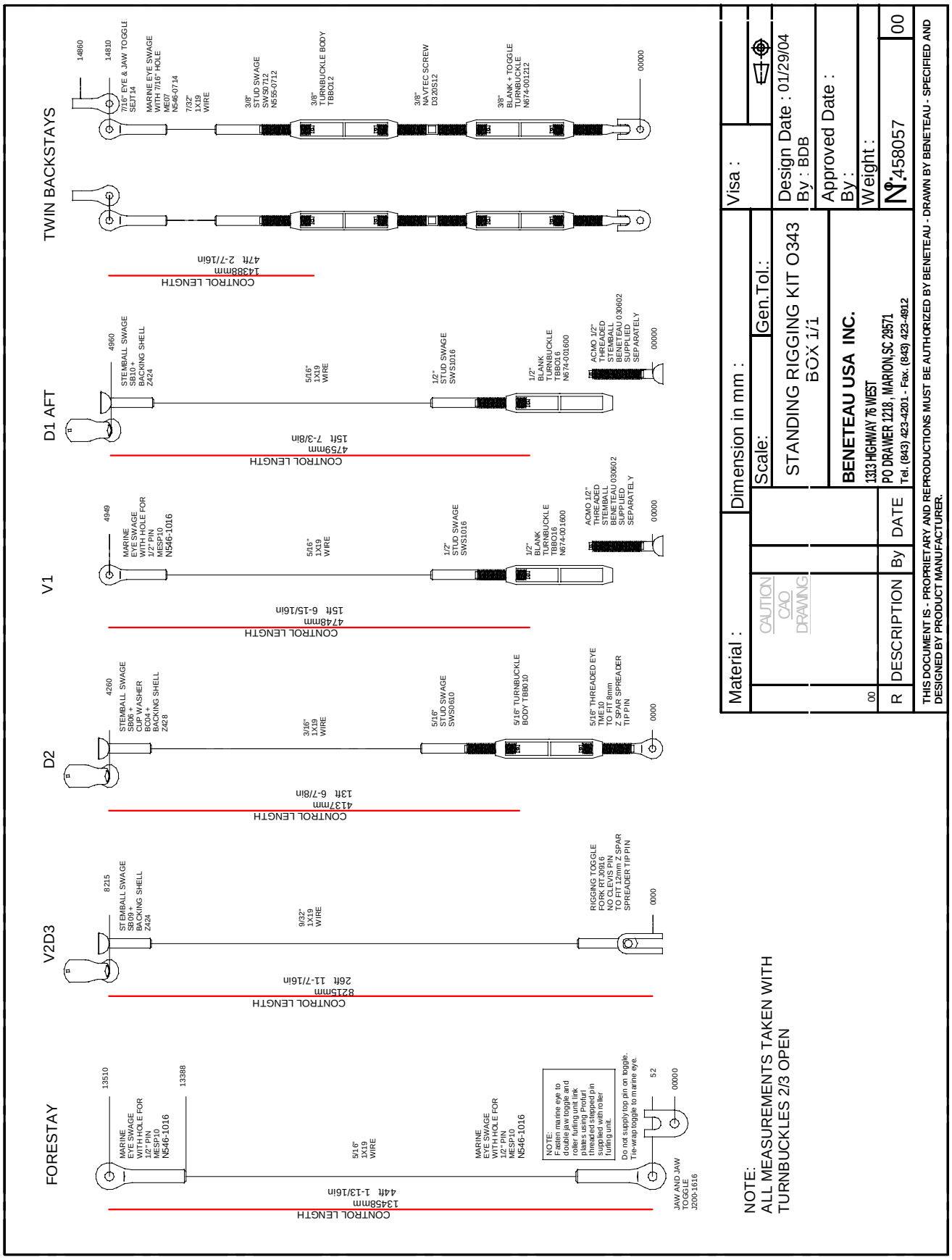
- Jib halyard n°1 made off on Spinlock XAS1 stopper on port side of mast, led thru a mast step block and stowed on a general purpose cleat on the mast.

- The genoa roller furling line runs along the port toerail thru lead blocks, then led thru a Spinlock XAS1 jammer, then thru a lead block to the primary winch.

- The mainsail outhaul is cleated on the boom.

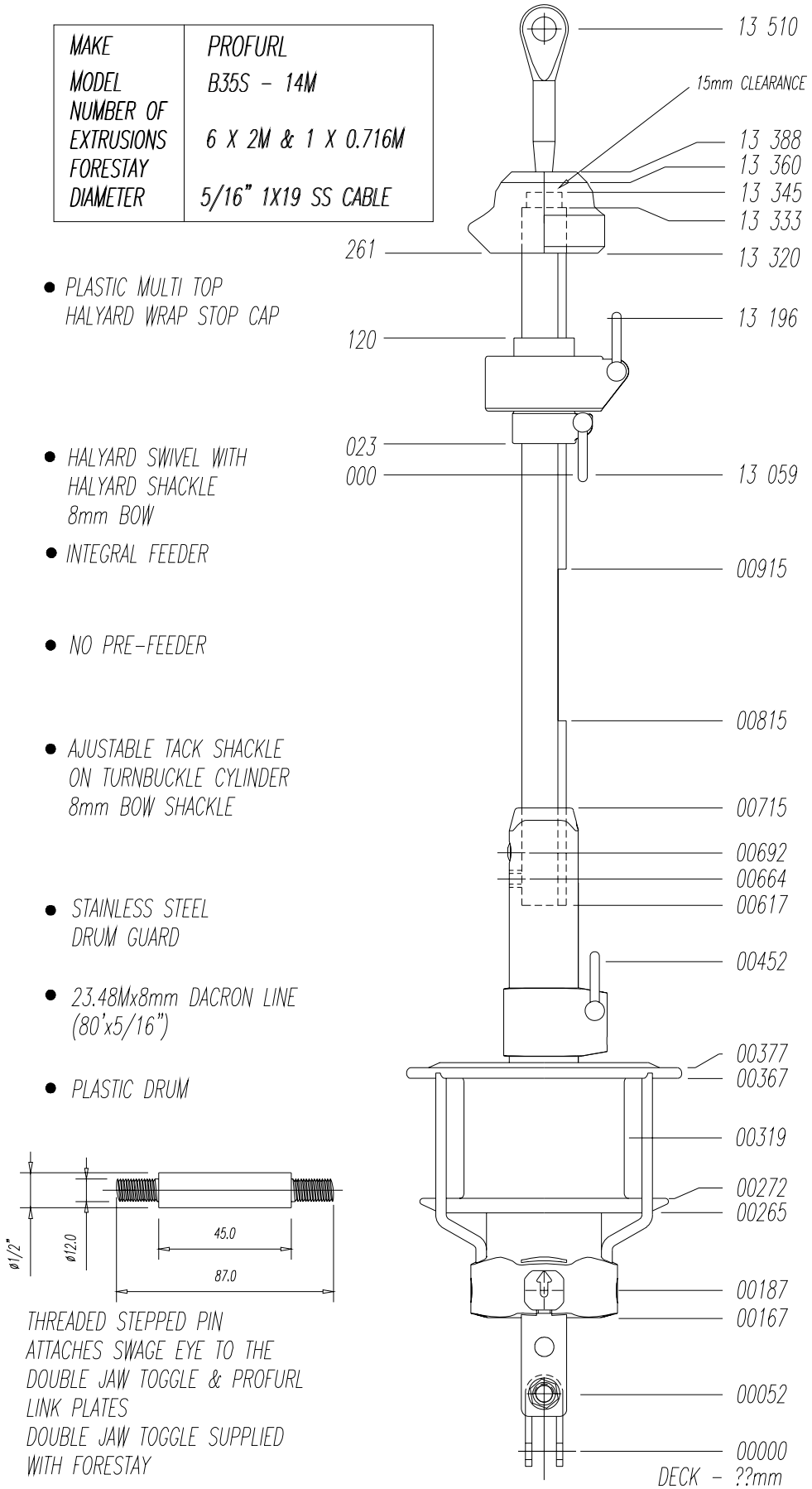
- On the standard boat without genneker/spinnaker option, the vang line is led thru the foreguy jammer.

STANDING RIGGING

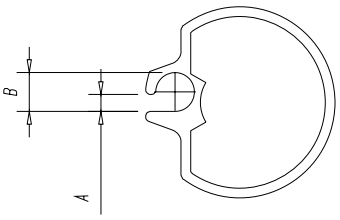


MAKE	PROFURL
MODEL	B35S – 14M
NUMBER OF EXTRUSIONS FORESTAY	6 X 2M & 1 X 0.716M
DIAMETER	5/16" 1X19 SS CABLE

- PLASTIC MULTI TOP HALYARD WRAP STOP CAP
- HALYARD SWIVEL WITH HALYARD SHACKLE 8mm BOW
- INTEGRAL FEEDER
- NO PRE-FEEDER
- AJUSTABLE TACK SHACKLE ON TURNBUCKLE CYLINDER 8mm BOW SHACKLE
- STAINLESS STEEL DRUM GUARD
- 23.48Mx8mm DACRON LINE (80'x5/16")
- PLASTIC DRUM



MATERIAL: PROFURL		VIEW			
DESIGN DATE 09/02/2004 BY: VMH					
ALSO SHOWN: 458055 EXTRUSION KIT					
PART NUMBER DRUM KIT 458054					
DIMENSIONS: MILIMETERS	SCALE: NONE GEN. TOL. NONE	PROFURL BASIC GENOA RF SYSTEM 0343			
DATE	09/02/2004 12/01/2004				
CODE	PROTO FRANCE 458055 rev 00				
R	0 1				



THREADED STEPPED PIN ATTACHES SWAGE EYE TO THE DOUBLE JAW TOGGLE & PROFURL LINK PLATES
DOUBLE JAW TOGGLE SUPPLIED WITH FORESTAY

DIMESION mm	A	B
LUFF GROOVE	2.6	5.8

NEILPRYDE

Headsail Specification and Technical Worksheet

Model Type:	***Beneteau 343 U.S.A.***						
Sail Type:	140% Roller Furling Genoa						
"I" Dim:	13240	**"J" Dim:**	3900	**Max Hoist:**	12607	**Area:**	32.5sqmt

Finished Dimensions

Luff:	12440	Leech:	11839	**Foot:**	5736	**L.P.:**	140% / 5460

Finish Details

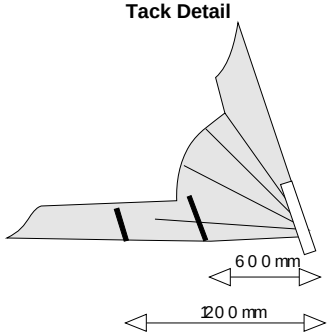
Material Type:	6.63 / 7.03 Challenge	**Tack Detail:**	Double webbing Loop
Head Detail:	Double Webbing Loop	**Clew Detail:**	50mm ext ring with Leather
Foam Luff:	Yes, NP Multi track foam luff		
Trim stripes:	Two sets 2x 3/8" black	**T.T. Window**	9" round
Leech Cleat:	241 Alum. Cleat. W/snubbing eyes	**Foot Cleat:**	2 #1 eyelets at tack
Foot/Leech:	Single fold, hotknifed 30mm tabling	**U.V. Cover:**	STBD Dacron with UV coating
Foil Tape:	NP#5	**Seam:**	V-92 Blue / 2 rows 3-step
Bag Type:	Drawstring type "A"	**Furling System:**	Ref: Beneteau # 458054

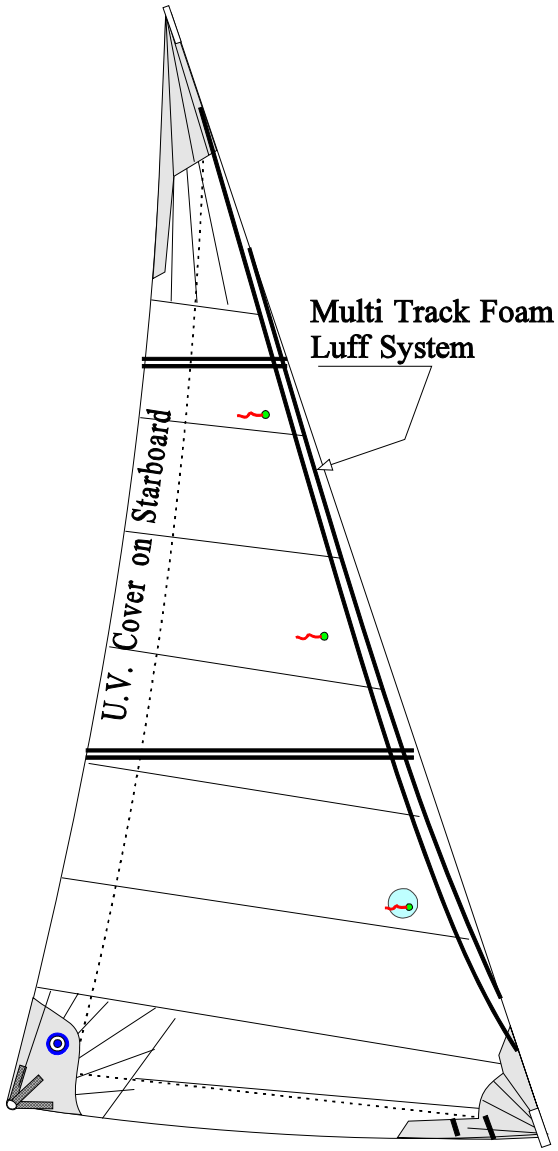
Drawing Information

Drawing Name:	343 RFG	**Drawn By:**	Bob	**Date:**	Jan-05	**Rev#**	***458053 - R001 - rfg.doc***

Additional Notes:	Production sail rev. 1 shorten hoist to 12440mm, raise clew 25mm

Tack Detail





Beneteau Part #: 458053

Mainsail Specification and Technical Worksheet

Model Type:	***Beneteau Oceanis 343 USA***						
Sail Type:	*PBF Mainsail*						
"P" Dim:	*11780*	**"E" Dim:**	*4140*	**Sailmaker "E"**		**Area:**	*24.85m2*

Finished Dimensions

Luff:	*11612*	**Leech:**	*11785*	**Foot:**	*4089*

Finish Details

Material Type:	*7.3 / 8.03 Challenge*	**Tack Detail:**	*Single ply 25mm webbing loop*
Head Detail:	*Single ply 25mm webbing loop*	**Clew Slug/Car:**	*Z-spar 3259 Clew block*
Clew Detail:	*Spider Patch and Pg 38 safety clew ring with webbing*	**Insignia:**	*Yes, black*
Furling Label	*120mm behind UV Cover*	**Seams:**	*2 rows of 3-step, Blue V-92*
Draft Stripe:	*2x3/8" black*	**Tell Tale:**	*Yes, 2 at leech*
Leech Cleat:	*241 Alum cleat with snubbing eyes*	**Bag Type:**	*Drawstring type "A"*
Leech/Foot:	*3" Dacron tape*		
B-Pockets	*4 lightweight 2.5" "A" pockets ON PORT SIDE OF SAIL*	**Battens:**	*4 x 25mm flat NO ENDCAPS*

Bat. Lengths:	***#1***	*1800*	***#2***	*1700*	***#3***	*1500*	***#4***	*1200*

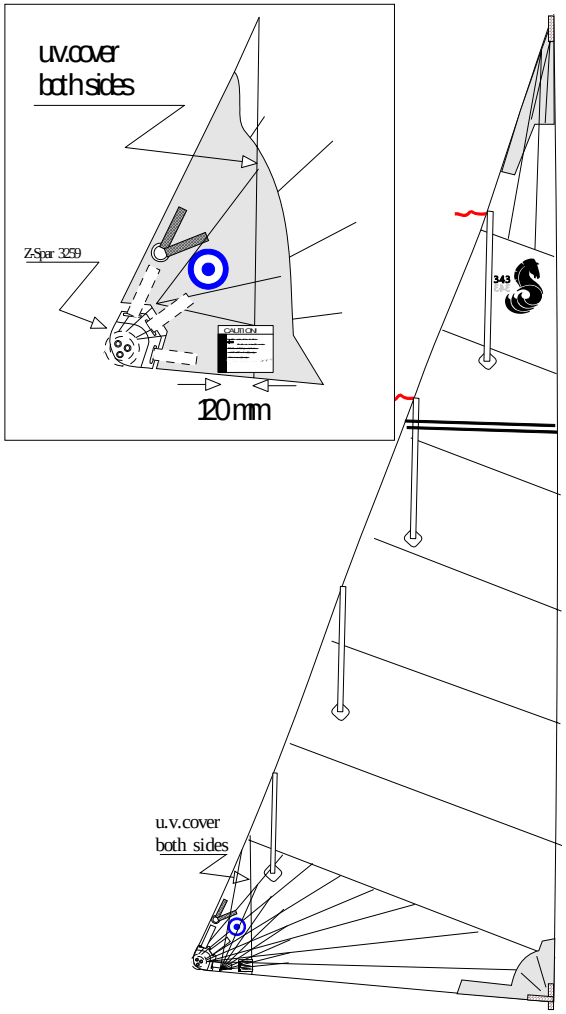
Luff Rope	*NPS#7 Foil Tape stops at the f480mm above tack*	**Cover Material/Colour:**	*Clew only, both sides: UV Dacron cloth / white*
Mast Section:	*Z-Spar: 550E*	**Boom Section**	*Z-Spar: 360*

Tack and Clew Cutback Details:

A:	*50*	*B:*	*100*	*C:*	*100*	*Note: These are for design reference only; sail does not have cut back or cut out at foil tape.*

Drawing Information

Drawn By:	Bob	**Date:**	sept –05	**Revision #**	458975 - R001 - PBF Mainsail.doc
Additional Notes:	*Finished Dimensions include head and tack webs.* *Rev 1: Changes to Seahorse Logo*				



Tack/Clew Detail

Black Insignia & Furling Label

Beneteau Part #: 458975

Mainsail Specification and Technical Worksheet

Model Type:	***Oceanis 343 U.S.A.***				
Sail Type:	*Classic Mainsail*				
"P" Dim:	*11930*	**"E" Dim:**	*4140*	**Area:**	*27.55sqmt*

Finished Dimensions

Luff:	*11810*	**Leech:**	*12336*	**Foot:**	*4089*

Finish Details

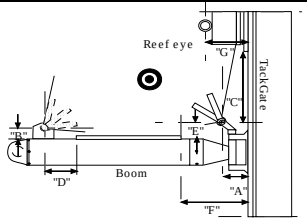
Material Type:	*7.3/8.03 Challenge Dacron*	**Tack Detail:**	*40mm SS Ring with leather*
Head Detail:	*50mm S.S Ring with leather*	**Clew Slug:**	*SLD 151*
Head Slide:	*Allslip Seldon A114 set just below head ring*	**Clew Detail:**	*50mm SS ring with leather*
Clew Reef 1:	*RF51100 on Port Side led through PG 23 ring*	**Tack Reef 1:**	*RF51100 block on Port Side led through PG 20 ring*
Clew Reef 2:	*RF51100 block on Port Side led through PG 23 ring (upper reef)*	**Tack Reef 2:**	*RF51100 blocks on Port Side led through PG 20 ring (upper reef)*
Ditty Bag:	*Promo kit #2*	**Logos**	*2 bullseyes*
Battens:	*4 x 30mm flat*	**Ben. Part#:**	*112640*
Bat. Lengths:	**#1** *800* **#2** *1500*	**#3** *2100*	**#4** *2800* **#5** *n.a.*
Trim stripes:	*2 x 3/8" black stripes*	**Tell Tale:**	*3: 1 at top3 batten*
Leech Cleat:	*241 Alum. With snubbing eyes*	**Luff eyes:**	*15-#3 eyelets.*
Luff Tape:	*4" with 8mm rope*	**Insignia:**	*Black*
Leech Line:	*4mm Dacron line*	**Trim Stripe:**	*Black*
Luff Slides:	*16- A014 Seldon slides*	**Sail Ties:**	*3- 2.4 mt ties*
Reef Cleat:	*2 x 241 Alum.*	**Bag Type:**	*Drawstring type "A"*
Reef Hts. %	**Reef 1** *16%* **Reef 2**	*34%*	**Reef 3** *na*
Leech:	*Double Tabling*	**Reef eyes:**	*7 # 3 eyelets*
Foot:	*Single Tabling*		
Mast Section:	*Z-spar 501*	**Boom Section:**	*Z-Spar Z-360*

Tack and Clew Cutback Details:

A:	*50*	*B:*	*000*	*C:*	*220*	*D:*	*000*	*E:*	*25*	*F:*	*280*	*G:*	*85*

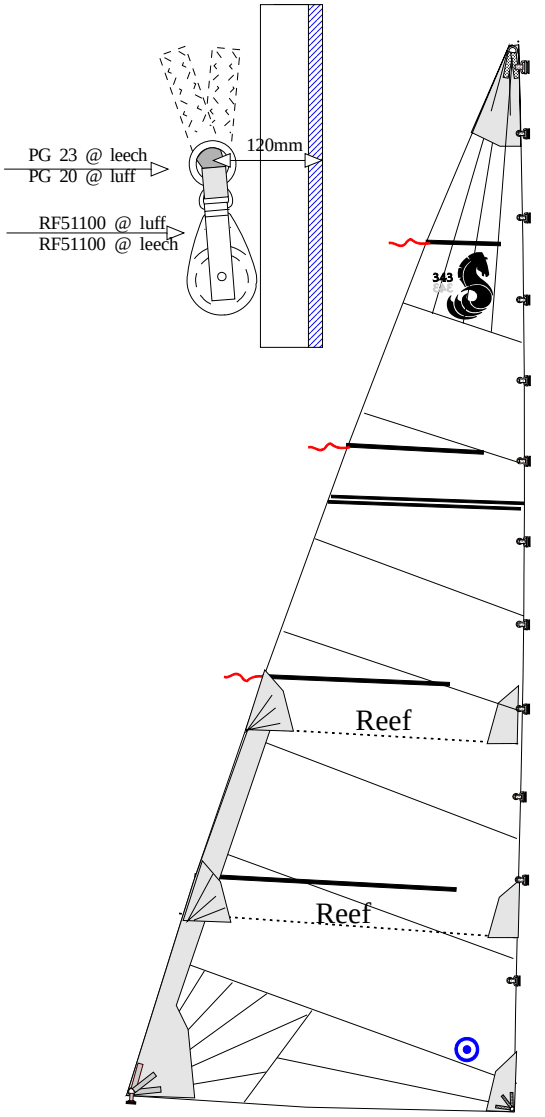
Drawing Information

Drawing Name:	*343-classic*	*Drawn By:*	*Bp*	*Date:*	*Jan-07*	*Rev:*	*458048 - R002 - cl main.doc*
Additional Notes:	*REV-2: Changes to Seahorse logo*						



Tack/Clew Detail

Insignia Detail in Black

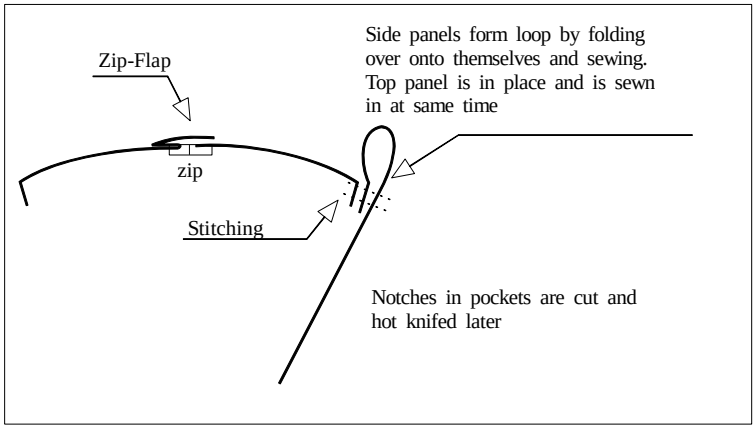


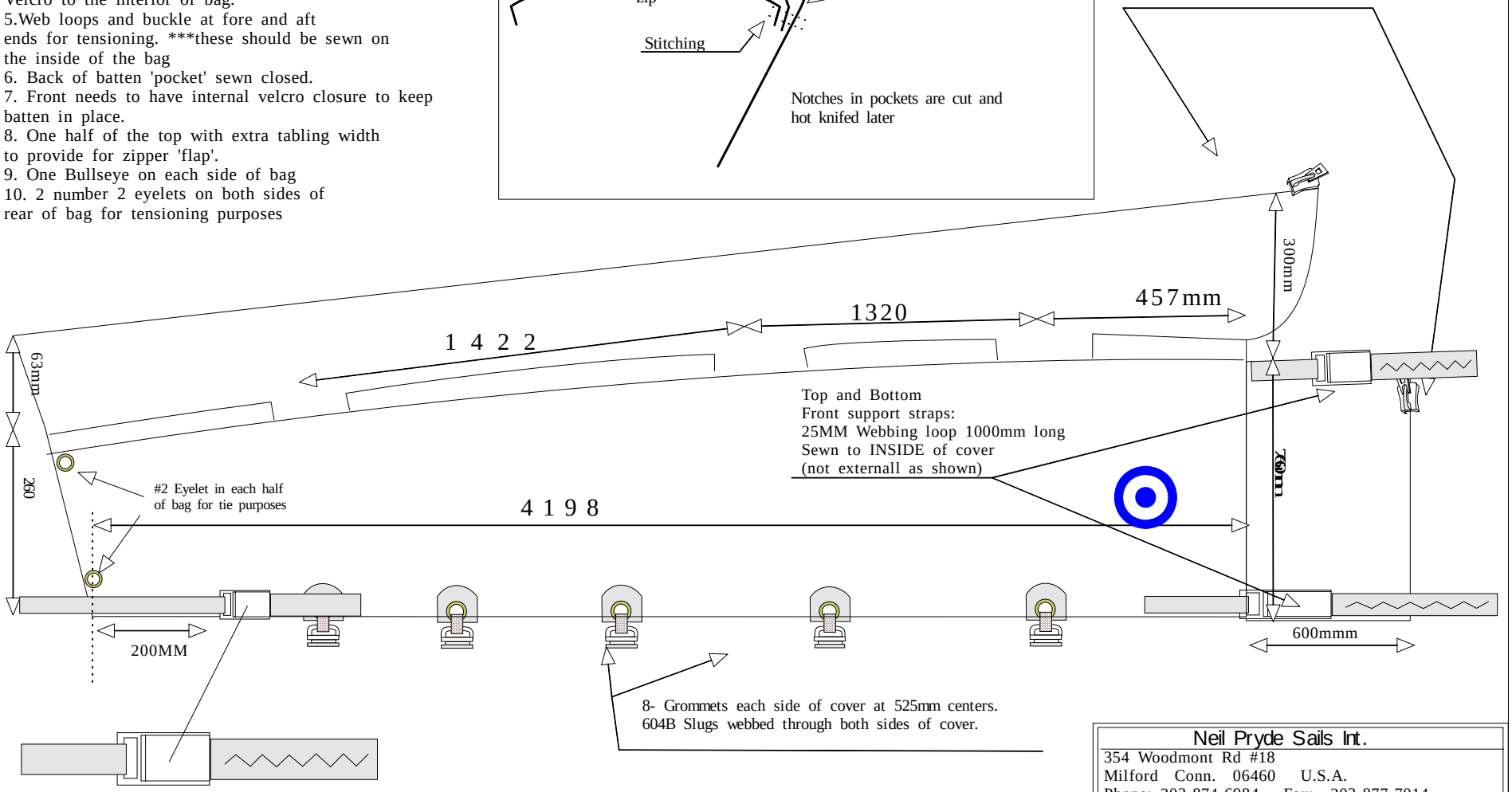
Beneteau Part #: **458048**

TECHNICAL SPECIFICATION SHEET

Beneteau 343 Classic Lazy Bag

Notes:
Cover: Forest Green Odysey
1. Top section folded over to accept a 11mm round batten
2. Top sewn to seam. See detail
3. Openings for line notched in as shown.
4.Front flap to fold inside bag while sailing and Velcro to the interior of bag.
5.Web loops and buckle at fore and aft ends for tensioning. ***these should be sewn on the inside of the bag
6. Back of batten 'pocket' sewn closed.
7. Front needs to have internal velcro closure to keep batten in place.
8. One half of the top with extra tabling width to provide for zipper 'flap'.
9. One Bullseye on each side of bag
10. 2 number 2 eyelets on both sides of rear of bag for tensioning purposes





Buckle and loop 25mm x 500mm
Loop goes through corner rings and back to other side of bag
to allow for tensioning.
NOTE: BUCKLE TO BE SET INSIDE REAR OF COVER BY 200MM

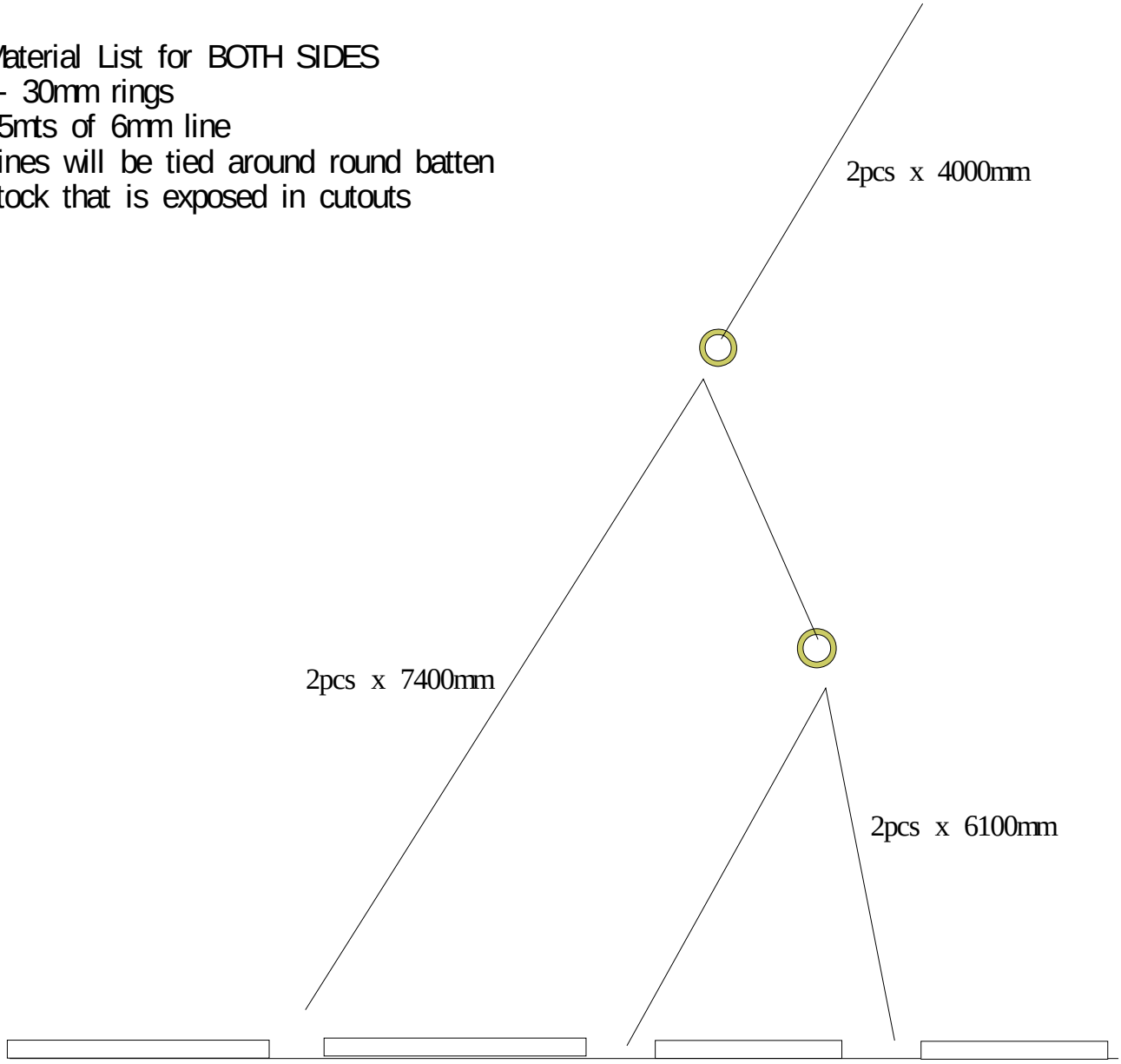
Neil Pryde Sails Int.
354 Woodmont Rd #18
Milford Conn. 06460 U.S.A.
Phone: 203-874-6984 Fax: 203-877-7014

Drawing Name:	343 Lazy Bag		
Date:	sept 2004	Scale:	Not to Scale
Drawn by:	Bob Pattison	Rev:	000

TECHNICAL SPECIFICATION SHEET

Beneteau 343 lazy jack lines

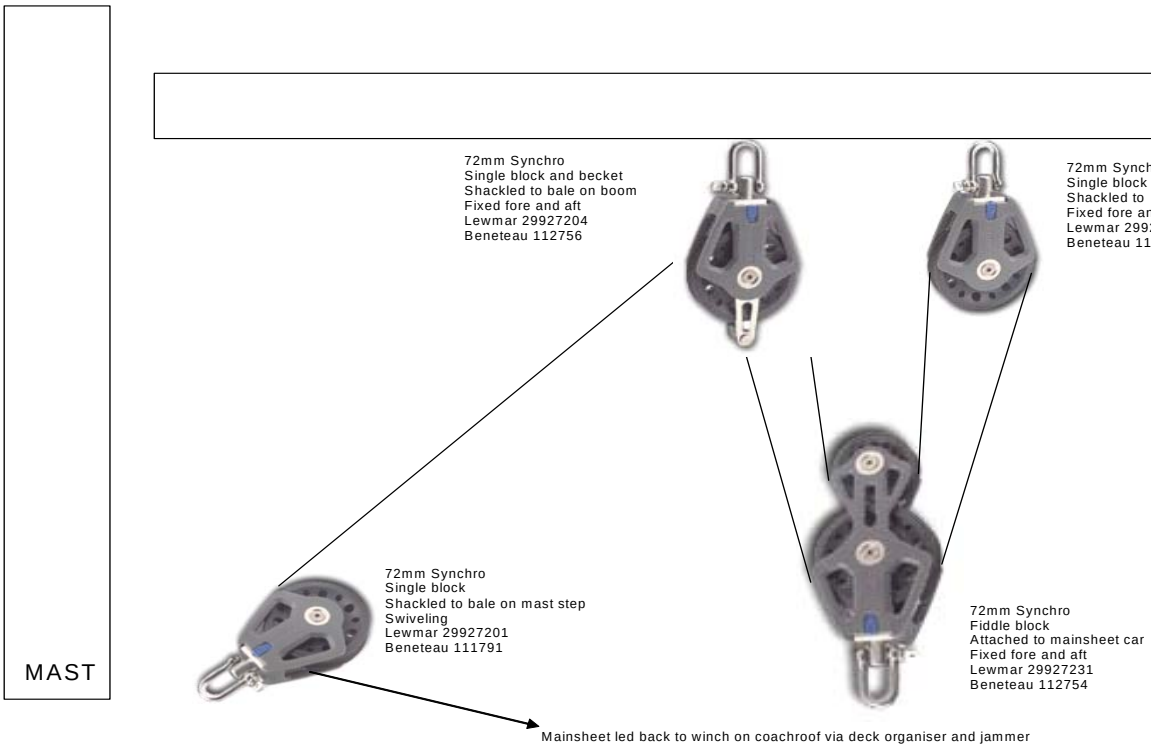
Material List for BOTH SIDES
4- 30mm rings
35mts of 6mm line
Lines will be tied around round batten stock that is exposed in cutouts



Neil Pryde Sales & Design Office
50 Broad Street, Milford Conn. 06460 U.S.A.
Phone: 203-874-6984 Fax: 203-877-7014

Drawing Name:	**Lazy Jack lines**		
Date:	Sept-04	Scale:	Not to Scale
Drawn by:	Bob Pattison		
Revision #:	4	File Name:	**343 Line**

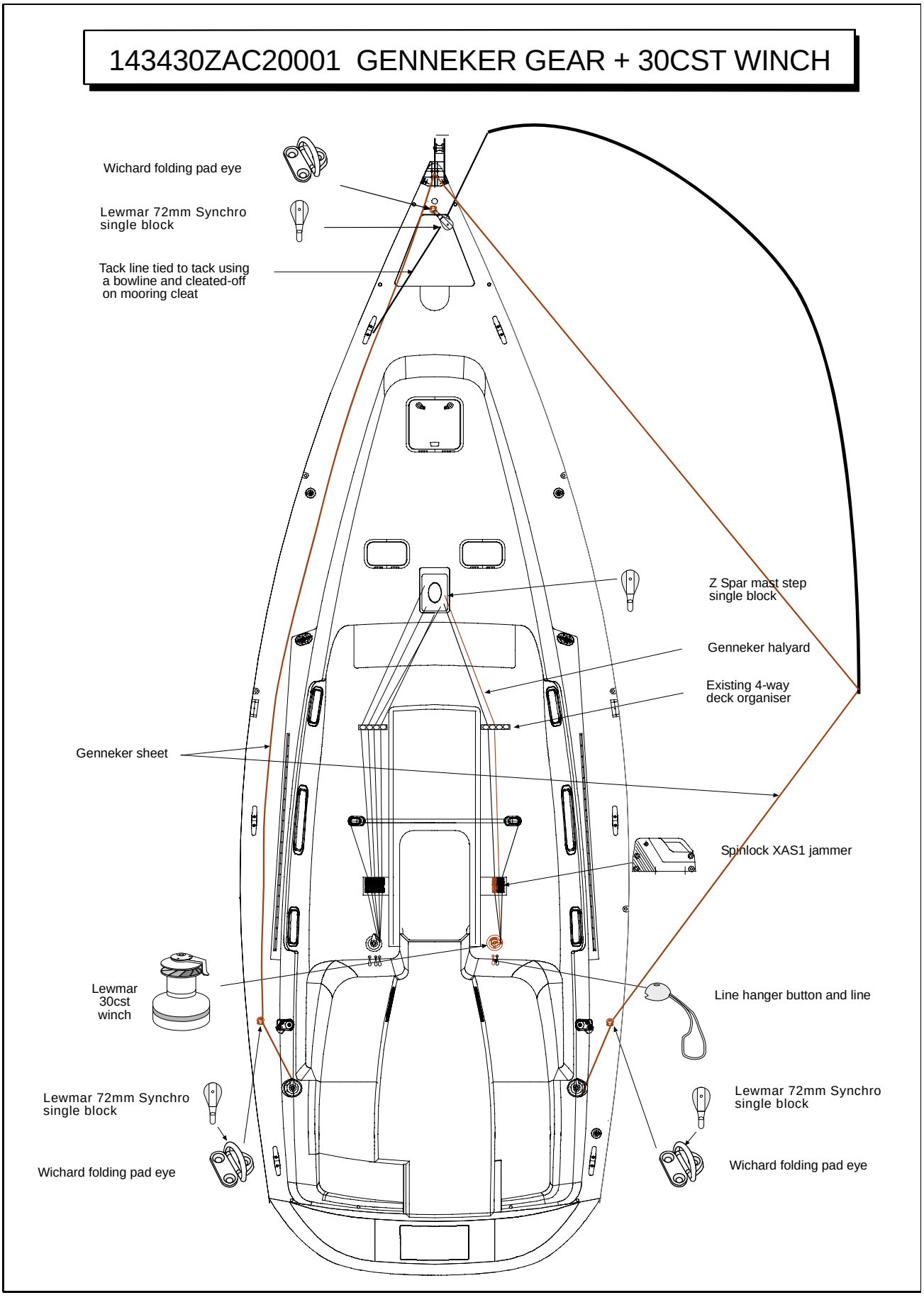
MAINSHEET LAYOUT



RUNNING RIGGING SPECS

BOAT	ITEM PART No. (8 digit)	ITEM PART No. (6 digit)	REV	QTY	DESCRIPTION	MAKE & TYPE	COL.	TERMINAL 1	TERMINAL 2	NOTES	DIA	LENGTH mm	FEET	IN	SUPPLIER
O343		112600	00	1	GENNEKER HALYARD	SAMSON LSTC	RED	SOFT EYE SNAPSHACKLE W2475	WHIPPING AND LOOP		3/8"	33000	108	3 3 / 16	SECO SOUTH ok for prod
O343		112572	00	1	GENNEKER TACK STROP	SAMSON LSTC	BLACK	BURNT	BURNT		3/8"	7000	22	11 9 / 16	SECO SOUTH ok for prod
O343		112596	00	2	GENNEKER SHEET - twin sheet system	SAMSON LSTC	RED	BURNT	BURNT		3/8"	24000	78	8 7 / 8	SECO SOUTH ok for prod
O343		067298	00	2	JIB SHEET	LANCELIN	BLUE	BURNT	BURNT		12mm	13000	42	7 13 / 16	BENETEAU FRANCE
O343		112757	00	1	MAINSHEET	SAMSON LS	GREY	SOFT EYE LONG LOOP	WHIPPING		7/16"	18000	59	0 5 / 8	LEWMAR ok for prod
O343		112762	00	2	MAINSHEET TRAVELLER CONTROL LINE	SAMSON LS	GREY	SOFT EYE	WHIPPING		5/16"	8150	26	8 7 / 8	LEWMAR ok for prod
O343		458569	00	1	JIB HALYARD #1	GLEISTEIN TASMANIA	BLUE	KNOT + 7MM ZSPAR 3639 D SHACKLE	BURNT		10mm	31000	101	8 7 / 16	Z SPAR
O343		458570	00	1	MAIN HALYARD - classic mast	GLEISTEIN TASMANIA	RED	KNOT + 7MM ZSPAR 3639 D SHACKLE	BURNT		10mm	33000	108	3 3 / 16	Z SPAR
O343		458571	00	1	MAIN HALYARD - roller furling mast	GLEISTEIN TASMANIA	RED	KNOT + 6MM ZSPAR 56 D SHACKLE	BURNT		10mm	33000	108	3 3 / 16	Z SPAR
O343		458572	00	1	MAIN BOOM TOPPING LIFT	GLEISTEIN TASMANIA	YELLOW	KNOT + 6MM ZSPAR 3212 D SHACKLE	BURNT		6mm	27001	88	7 0 / 16	Z SPAR
O343		458573	00	1	VANG LINE	GLEISTEIN TASMANIA	GREEN	BURNT	BURNT	1. standard - supplied with vang.	8mm	12000	39	4 7 / 16	Z SPAR
O343		458574	00	1	MAIN RF INHAUL LINE	GLEISTEIN TASMANIA	BLUE	BURNT	BURNT		8mm	17000	55	9 5 / 16	Z SPAR
O343		458575	00	1	MAIN RF OUTHAUL LINE	GLEISTEIN TASMANIA	BLACK	BURNT	BURNT		10mm	16000	52	5 15 / 16	Z SPAR
O343		458576	00	1	OUTHAUL AFT LINE - classic mast	GLEISTEIN TASMANIA	BLACK	BURNT	BURNT		8mm	3000	9	10 1 / 8	Z SPAR
O343		458577	01	1	OUTHAUL FWD LINE - classic mast	GLEISTEIN TASMANIA	BLACK	KNOT + ZSPAR 253 SINGLE+BECKET BLOCK	BURNT		8mm	7000	22	11 9 / 16	Z SPAR
O343		458578	00	1	REEF 1 - classic mast	GLEISTEIN TASMANIA	RED	BURNT	BURNT		10mm	20000	65	7 3 / 8	Z SPAR
O343		458579	00	1	REEF 2 - classic mast	GLEISTEIN TASMANIA	BLUE	BURNT	BURNT		10mm	30000	98	5 1 / 16	Z SPAR

GENNEKER GEAR (option)



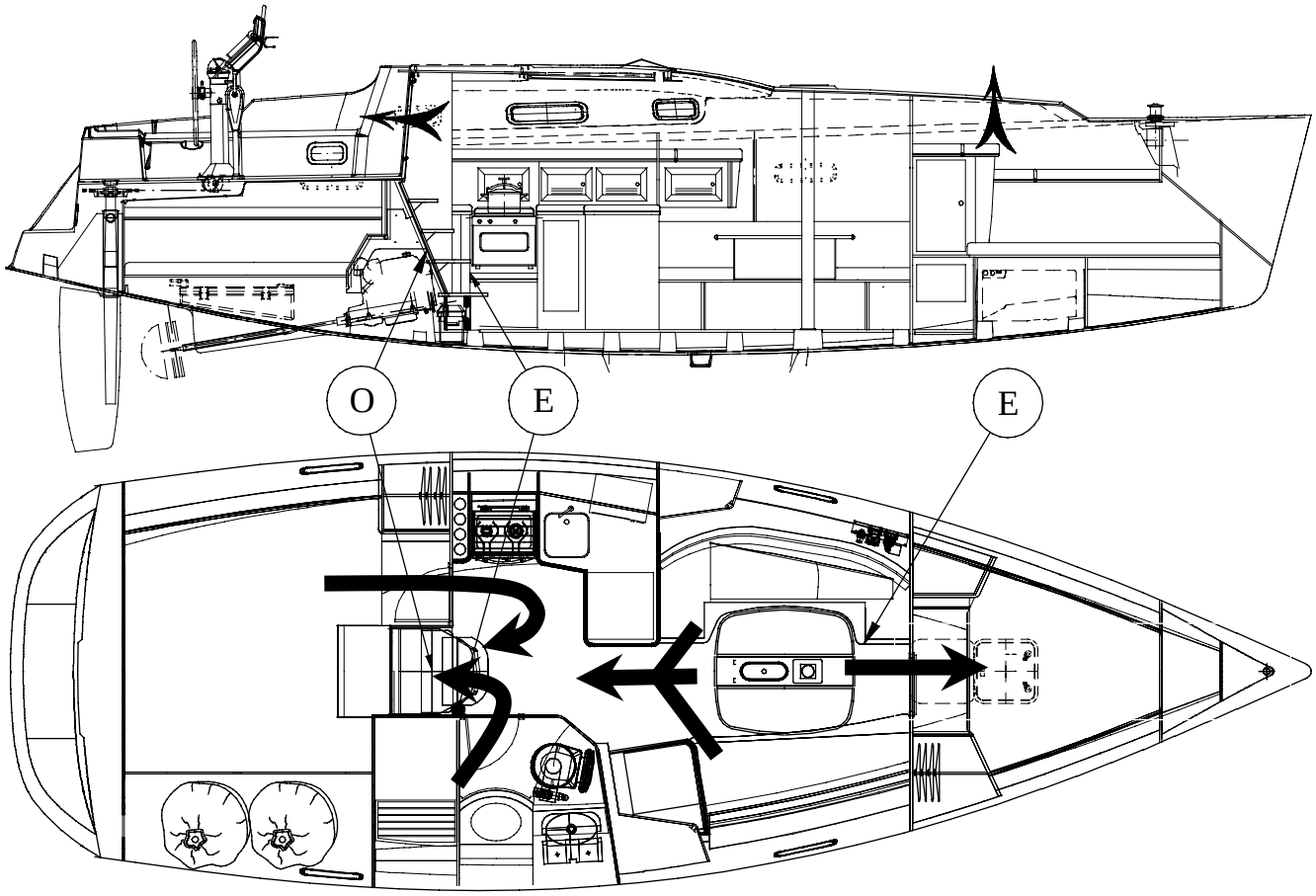
XII) SAFETY

EMERGENCY EXIT

The recommended places for the extinguishers are identified with the symbol (E)

On boats fitted with an inboard engine, there is a discharge aperture for the engine compartment whose location is identified on the following diagram by the symbol: (O)

= Emergency Exit



PORTABLE EXTINGUISHERS

The boat is delivered without portable extinguishers, the application of the national regulations of the country of registration of your boat are your responsibility. The boat must be equipped, when in service, with portable extinguishers

The boat is delivered without portable fire extinguishers. It is your responsibility to comply with the laws and regulations of your country (Number, capacity, type and place of fire extinguishers).
We advise you to install an extinguisher less than 5 meters away from the center of each berth, less than 2 meters away from any open flame device and less than 1 meter away from the helm pedestal or cockpit. We advise a total capacity of the portable extinguishers reaching 8A/64B, each extinguisher having at least a 5A/34B capacity. The CO2 extinguishers shall be used to fight fires in the galley and electric fires.

PREVENTIVE ADVICE

- **Do not freely hang curtains or any other fabrics close to or above cooking appliances or other naked flame appliances.**
- **Keep the bilges clean and regularly check for the absence of vapours and fuel or gas leaks.**
- **Do not stow combustible materials in the engine compartment.**
- **Do not leave the boat unattended when cooking and/or heating appliances are in use.**
- **Do not smoke when handling fuel or gas.**
- Make sure that fire fighting equipment is readily accessible when the boat is occupied.
- Show members of the crew:
  - the location of fire fighting equipment and how to use it,
  - the location of the engine compartment extinguisher controls,
  - the emergency exits and routes.
- If any elements of the fire fighting installations need replacing, only use appropriate elements, bearing the same description or having the same technical capacities and an equivalent resistance to fire.
- If non-combustible materials are stowed in the engine compartment, they should be lashed so that there is no risk of them falling onto the machinery and they should neither obstruct access to the engine compartment nor exit from it.
- Do not obstruct passages towards the exits and hatches.
- Do not obstruct safety controls, i.e.: fuel shut-off valves, gas shut-off valves, electrical system switches
- Do not obstruct access to portable fire extinguishers stowed in lockers.
- Do not use gas lamps in the boat.
- Do not modify any of the boat's installations (especially electrical, fuel or gas) or let unqualified personnel modify any of the boat's installations.
- Do not fill fuel tanks or replace gas tanks when the engine is running or when cooking or heating appliances are being used.

Maintenance of fire fighting equipment

The owner / user of the boat should:

- Have the fire fighting equipment serviced according to the frequency indicated on the equipment.
- Replace portable fire extinguishers if they have passed their use-by-date or have been discharged, with appliances having equal or superior extinguishing capacity.
- Fill or replace fixed fire extinguishing systems if they have been discharged or have passed their use-by-date.

Visibility

Visibility from the helm station can be obstructed because of high angles of the boat's trim or because of other factors caused by one or several of the following conditions:

- Load and distribution of the load
- Speed
- Sea state
- Rain and spray
- Darkness and fog
- Light inside the boat
- Position of overhead and side awnings
- People or movable equipment located in the helmsman's field of visibility
- Fast acceleration and transition from the displacement mode to the planing mode in the case of powerboats
- Angle of trim tabs associated with the engine (for boats thus equipped)
- Angle of trim tabs associated with the hull (for boats thus equipped)

The international regulations for the prevention of collisions at sea (COLREGS) and rules of the road impose a correct and permanent watch and the respect of right of way. Respect of these regulations is essential.

Stability, risk of flooding

- **Reduce speed before going into tight turns, to avoid loosing control.**
- When underway, keep portlights, windows and opening doors closed.
- Stability is reduced when weight is added aloft.
- Stability can be reduced when towing a boat or lifting a heavy weight with davits or the boom.
- Breaking waves constitute great danger for stability and can cause flooding. Close doors and companionway hatches in a rough seaway.
- Do not drive the boat with negative trim (bows down) at high speed. This could make the boat heel and could result in instability in turns. Use negative trim for passing from displacement speed to planing speed, and at lower speeds in chop.
- Compartments marked as being air tanks should not be perforated.
- If the boat is qualified as unsinkable, it is capable of supporting its passengers, even when flooded.
- On a boat where a bilge pump is not required, it is the responsibility of the user / owner to have at least a bucket / bailer on board fitted with a means of preventing its accidental loss.

XIII) DECK

- Jack lines can be fastened either to the mooring cleats, or to pad eyes on deck.

The Beneteau 343 is fitted with a foldaway swimming ladder. The swim ladder should be in its folded/upright position as soon as you are on board.

The transom area is not considered part of the working deck and should not be used while underway
See diagram below

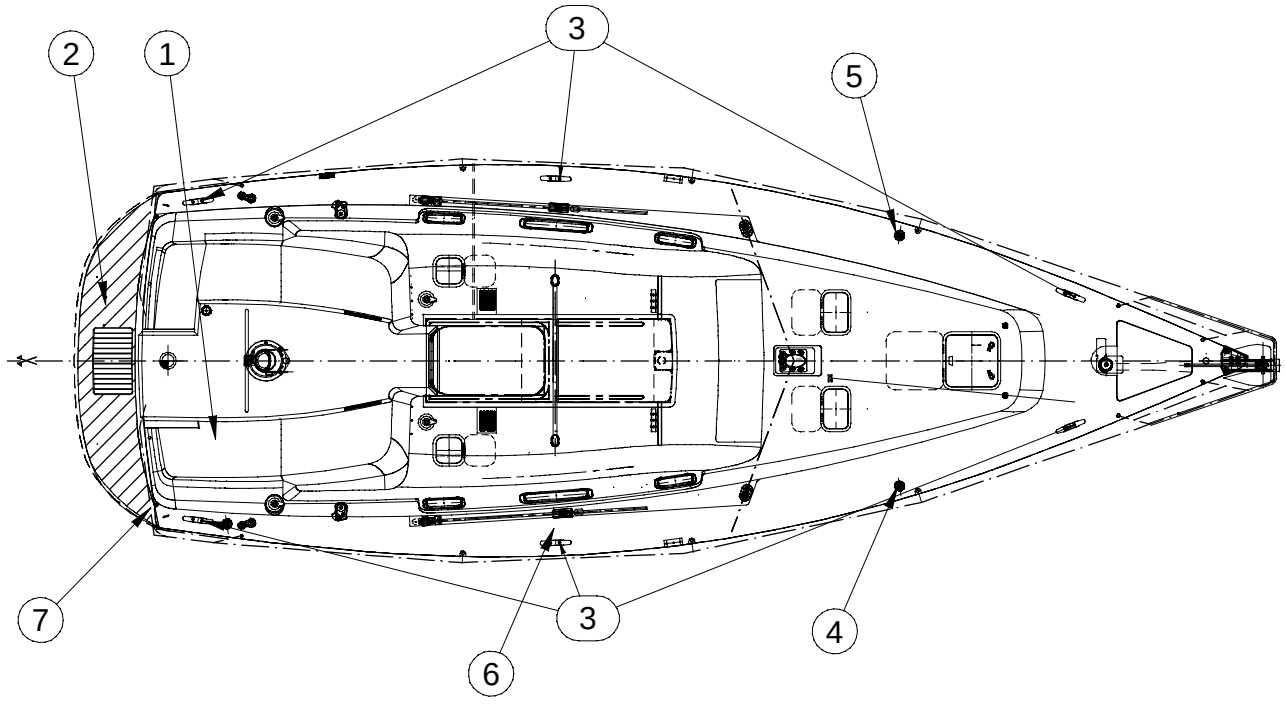
Make sure that the hatches and portholes are closed before you put out to sea.

In case of rough sea, close the boat with the sliding hatch and weatherboards so that no water may come into the boat.

Check that nothing blocks the cockpit drain holes; these holes should never be sealed.

1 Recommended location of the life-raft
2 Swim platform
3 Mooring Cleats
4 Fwd water tank deck fill
5 Port water tank deck fill
6 Waste tank pump out deck plate
7 Fuel deck fill

Zones excluded from working deck



XIV) ENGINE

Operating advice

- **Do not install in this boat an engine of superior power or weight than what is recommended, because this could hinder stability.**

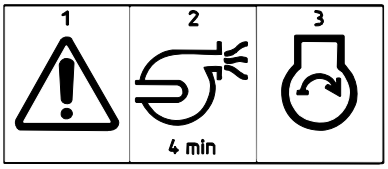
- **Stop the engine and do not smoke when refuelling.**
- **For outboard engines equipped with a separate portable fuel tank, fill the tank away from the boat in a well-ventilated place far from any risks of ignition.**
- **Fuels not stowed in tanks (portable tanks, jerrycans…) must be stowed in a ventilated space.**
- **Before starting, make sure that the engine bilge is clean and dry. Any presence of fuel in the bilges should be cause for not starting.**
- **Avoid contact between flammable materials and the hot parts of the engine.**
- **Locate the extinguisher aperture allowing the extinguishing of engine compartment fires.**
- **For boats equipped with petrol engines, ventilate the engine compartment for 4 minutes with the help of a bilge fan to eliminate possible petrol fumes.**
- **A fixed extinguishing system for fighting engine compartment fires is installed in certain models. Learn where to find the triggering system and how to operate it (see section IV SAFETY). The engine compartment should be ventilated after triggering.**

- Make sure that ventilation openings are well clear.
- Do not obstruct or modify the ventilation system.
- Before starting, make sure that:
    - the engine controls are not engaged
    - the raw water inlet seacock is open then check that water is being discharged from the exhaust (the water may be mixed with exhaust gases in the case of a wet exhaust) once the engine has started.
- It is not recommended to work on or near moving mechanical parts (engine, propeller shaft, etc.).
    - If work is necessary, stop the engine and/or the rotation of the propeller shaft before working on one of their elements.
    - Be careful with ample loose clothing, hair or rings that could get caught up. Wear appropriate clothing (gloves, hats, etc)

- **Carbon monoxide (CO) fumes are extremely toxic. Prolonged exposure can cause serious injury or death. Symptoms include dizziness, nausea, and drowsiness. You can be overcome by fumes from your own engine or from neighboring boats. Ensure adequate ventilation by increasing air movement such as opening portlights, hatches and adjusting canvas.**

- In case of spillage on deck when refuelling, clean up before starting
- Anticipate the deterioration of fuel lines and hoses.
- Flexible fuel hoses should be replaced by hoses bearing the same markings.

Meaning of symbols

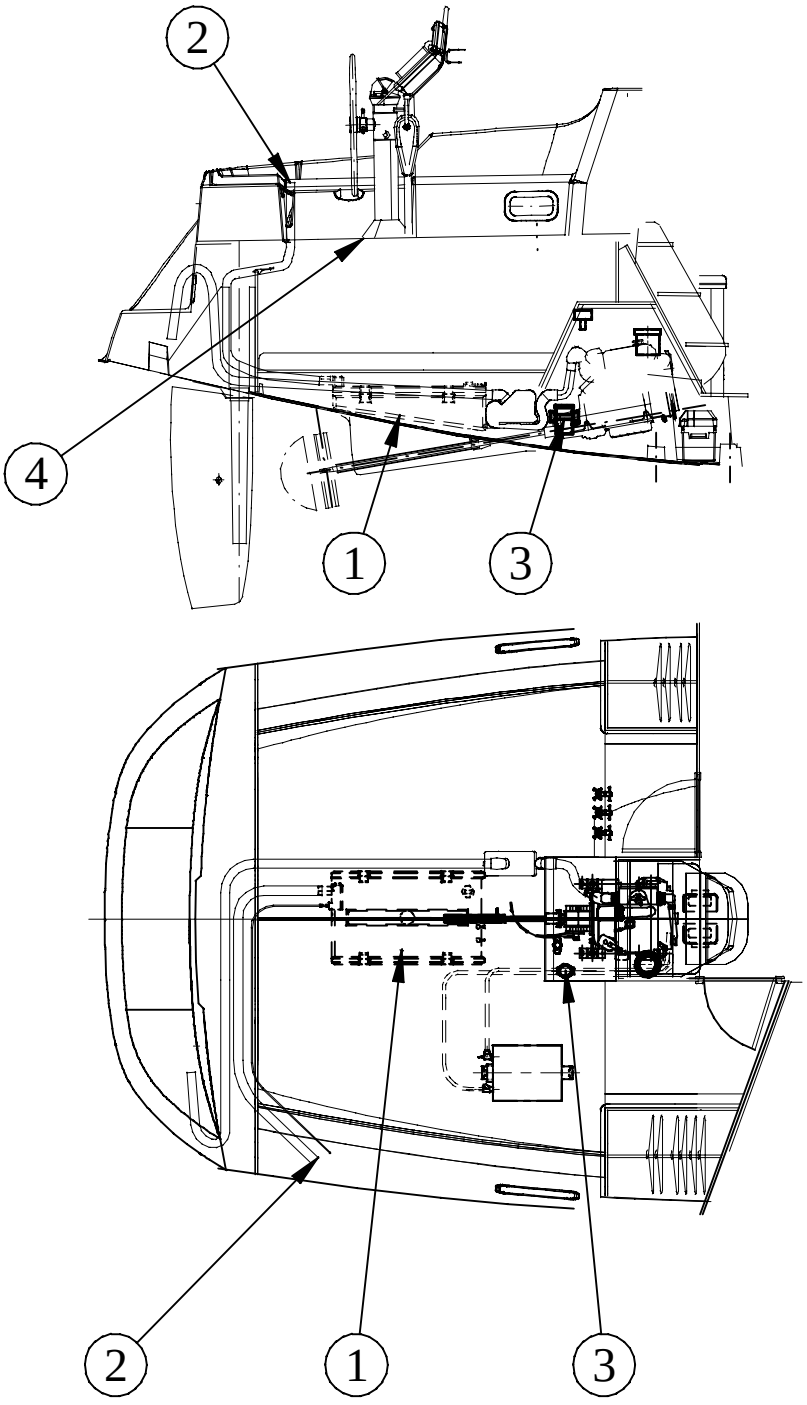


1 : Attention
2 : Ventilate for 4 minutes
3 : Start

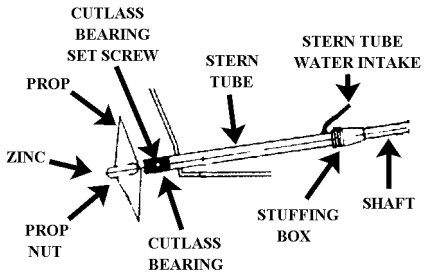
FUEL TANKS

REF	Description
1	FUEL TANK 75 L (estimated)
2	FUEL FILLER
3	FUEL FILTER
4	LOCKING LATCH

The indicated capacities cannot be totally used depending on trim, load or the position of filling and possible places of draining.

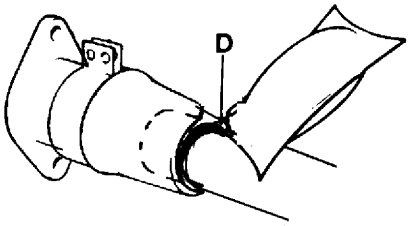


CUTLASS BEARING



The cutlass bearing is a water-lubricated rubber bearing that the prop shaft rotates in. It is critical for the shaft to be perfectly aligned through the bearing and mated to the engine coupling to prevent premature wearing of the cutlass bearing.

STUFFING BOX



The stuffing box is a rubber seal around the prop shaft, which allows the shaft to exit the hull and keep water out. Water is forced into the stuffing box via a thru hull and vent tube for lubrication. Once a year or every 200-engine hours grease the seal at "D" with 1cm^3 of grease. The seal should be replaced every 500 engine hours or every 5 years. See the manufacturer's directions for more details.

DIESEL OPERATION

Operation of the diesel engine includes preparation for starting, running, stopping, and securing the power system after use. The following paragraphs are a general guide, with complete procedures being more thoroughly covered in the engine manual.

ADDITIONAL CONTROLS

In addition to the control panel the following controls are associated with engine operation.

1. Battery Switch - Although a part of the electrical system, this switch must be energized in the ON position to provide power to the engine starter motor.

DO NOT OPERATE BATTERY SWITCHES WHEN THE MOTOR IS RUNNING!

2. Throttle and gearshift controls are located at the helm station.
3. Engine Stop Handle or Solenoid switch.

FUELING

While employment of a diesel engine results in a greatly reduced fire hazard when compared to gasoline, it should be remembered that diesel fuel is flammable, and that the employment of good fueling practices are necessary. The following steps are provided as guidelines.

Before Fueling

1. Extinguish all smoking materials and check the fueling area for other sources of spark or flame. Remove if found.
2. Shut off the engine and the electrical generator if one is aboard.
3. De-energize all electrical equipment.
4. Close all hatches and ports.
5. Ensure that a fire extinguisher is readily available.
6. Ensure that the proper (diesel, not gasoline) hose is about to be used.

WARNING! DO NOT FUEL DURING AN ELECTRICAL STORM. BESIDES THE OBVIOUS HAZARD OF LIGHTNING, THE POSSIBILITY OF STATIC DISCHARGE IS GREATLY INCREASED AT THE TIME.

Fueling

The diesel tank is filled thru a deck filler. **(SEE DECK SECTION FOR FUEL DECK FILL LOCATION)** The tank is filled for the first time with the cock closed to calibrate the fuel gauge. During filling, put a funnel with a filter in the deck filler hole, and watch the fuel overflow outlet. Useful tip: to avoid staining teak on the deck with diesel oil, wash the deck with water beforehand, this will stop the oil from penetrating the wood. While filling, note how much fuel corresponds to the markings on the gauge (remembering that a small amount of fuel not consumed during the factory engine tests may remain in the tanks);

Gauge markings: 1/4 1/2 3/4 F

Note: (number of gallons per mark) ____ ____ ____ ____

Always sail with your tanks as full as possible, both to avoid any contamination of the diesel oil with water (due to condensation in the tank), and to prevent the injector pump running dry and needing re-priming.

Fuel that is stored outside the tanks (spare cans, jerrycans) should be kept and stored in a ventilated place.

Know exactly where the fire extinguisher aperture is located so you will be able to put out a fire breaking out in the engine compartment.

After Fueling

Replace cover, clean up any spilled fuel. If any rags, etc. were used for this purpose, dispose of them ashore.

Check below decks for presence of fumes or fuel leakage. Check bilge, engine space, and main cabin.

WARNING! IF FUMES OR EVIDENCE OF LEAKAGE IS FOUND, DETERMINE THE CAUSE, CORRECT IT, AND CLEAN UP ANY SPILLAGE BEFORE PROCEEDING.

Open all hatches and ports to ventilate the boat.
Switch on battery.
The engine should be started only when it is certain that no potentially hazardous condition exists.

Fuel Sanitation

The fact that a diesel engine does not require an ignition system can, and usually does, result in an engine that is far superior to a gasoline engine with regard to dependability. Whether this is actually the case depends greatly on cleanliness of the fuel that is supplied to the engine since the close tolerances required by the engine's fuel delivery system make it extremely intolerant of any form of dirt or water contamination. The engine is supplied with filters that prevent contaminants from reaching the engine where they could cause damage, but a clogged filter, although providing this protection, can also stop an engine. Keeping the filters free of dirt and water is an obvious answer to this problem, and the cleaning schedules set forth in the engine manual will in most cases keep filters clean enough to prevent stoppage.

Bacterial Contamination

A factor that can cause additional problems is bacterial contamination of the diesel fuel. The bacteria involved need both water and fuel to exist, and if present, will thrive in a fuel tank. As they multiply, they form a filter-choking brown slime. Often their presence will not be known until rough weather churns up the fuel tank causing clogged filters at a most inopportune time.
Keeping water out of the fuel will, help prevent the problem, and while every effort should be made towards this, such as obtaining fuel from reputable dealers, it must be remembered that a certain amount of water due to normal condensation in the tank is to be expected.

Fuel Additives

Fuel additives or conditioners provide means of combating this problem. These additives break the water down to a molecular level, dispersing it throughout the fuel and allowing it to pass harmlessly through the fuel system. Various brands of this product are available at marine supply stores. As with all products of this nature, the directions on the container and engine owner’s manual should be carefully followed.

RUNNING THE ENGINE

Before Starting the Engine

Before you start the engine, make sure that the engine compartment bilge is clean and dry. If there is the slightest presence of fuel in the engine compartment, you must not start the engine.

1. Open the raw water intake thru hull valve.
2. Check to be sure the fuel shut-off valve is open.
3. Check the coolant level if the engine is fitted with a closed heat exchanger cooling system.
4. Check the oil in the sump and gearbox (this should be repeated after a few hours running).
5. Check the tension of the alternator drive belt.
6. Move the lever to neutral, and open the throttle a little (the mechanism will differ depending on the control box fitted).
7. Turn on the black negative battery handle and the red handled engine battery switch.

Starting the Engine

Insert the ignition key and turn it to "ON" (and then to the intermediate preheat position if your boat's engine has this system). A warning alarm will sound as you start up - the engine manual explains the meaning of this alarm and its operation.
Press the starter button or turn the key, as appropriate, and release the button or key, as soon as the engine is running **CHECK THE ENGINE EXHAUST FOR COOLING WATER DISCHARGE, IMMEDIATELY STOP THE ENGINE AND CHECK THE RAW WATER SYSTEM. IF NO COOLING WATER IS DISCHARGED FROM THE EXHAUST.** Let the engine run for a moment, and then bring the throttle lever back to the idle position. After you engage the clutch, increase the engine speed very gradually (it should take at least five minutes to reach cruising speed), because a diesel engine will warm up only when it is under load.

Do not operate the starter for more than 10 seconds at a time. If the engine does not start, wait at least 30 seconds before trying again.

CAUTION! OVER CRANKING AN ENGINE WITH A WATER LIFT MUFFLER CAN CAUSE DAMAGE! IF THE ENGINE DOES NOT START, CLOSE THE THRU HULL AND SEEK ASSISTANCE.

Once engine has started, check that the warning lights for oil and coolant pressure have gone out, and that the batteries are charging properly.

Check that the coolant water is circulating correctly, water should be either venting through the exhaust or passing through the heat-exchanger return circuit, depending on the cooling system fitted.

CAUTION! NEVER OPERATE THE BATTERY CIRCUIT SWITCH OR THE IGNITION KEY WHEN THE ENGINE IS RUNNING. THE RESULTING CURRENT SURGE WILL DAMAGE THE ALTERNATOR DIODES.

Engage the clutch firmly but not harshly. Do not rev the engine hard. When shifting from forward to reverse, or vice versa, the lever should be held in the neutral position for a moment before proceeding. Shifting should be performed with RPM reduced to idle. Keep a regular watch to make sure that the coolant water is circulating properly.

Stopping the Engine

To stop the engine:

1. Place throttle/transmission lever in the idle/neutral position.
2. Let engine idle for one (1) minute to allow it to cool down.
3. Engage the engine kill button or handle until the engine stops.
4. Turn the key to the "OFF" position.

CAUTION! DO NOT SWITCH BATTERY SELECTOR UNTIL THE ENGINE HAS COME TO A COMPLETE STOP! THIS WILL PREVENT ALTERNATOR DIODE DAMAGE.

CAUTION! IF YOU CLOSE THE FUEL AND SEA WATER VALVES AFTER STOPPING THE ENGINE, BE SURE TO RE-OPEN THEM BEFORE RESTARTING. FAILURE TO DO SO COULD CAUSE ENGINE TO OVER-HEAT AND CAUSE DAMAGE TO THE PUMP IMPELLER OR CAUSE FUEL LINES TO BECOME AIR LOCKED

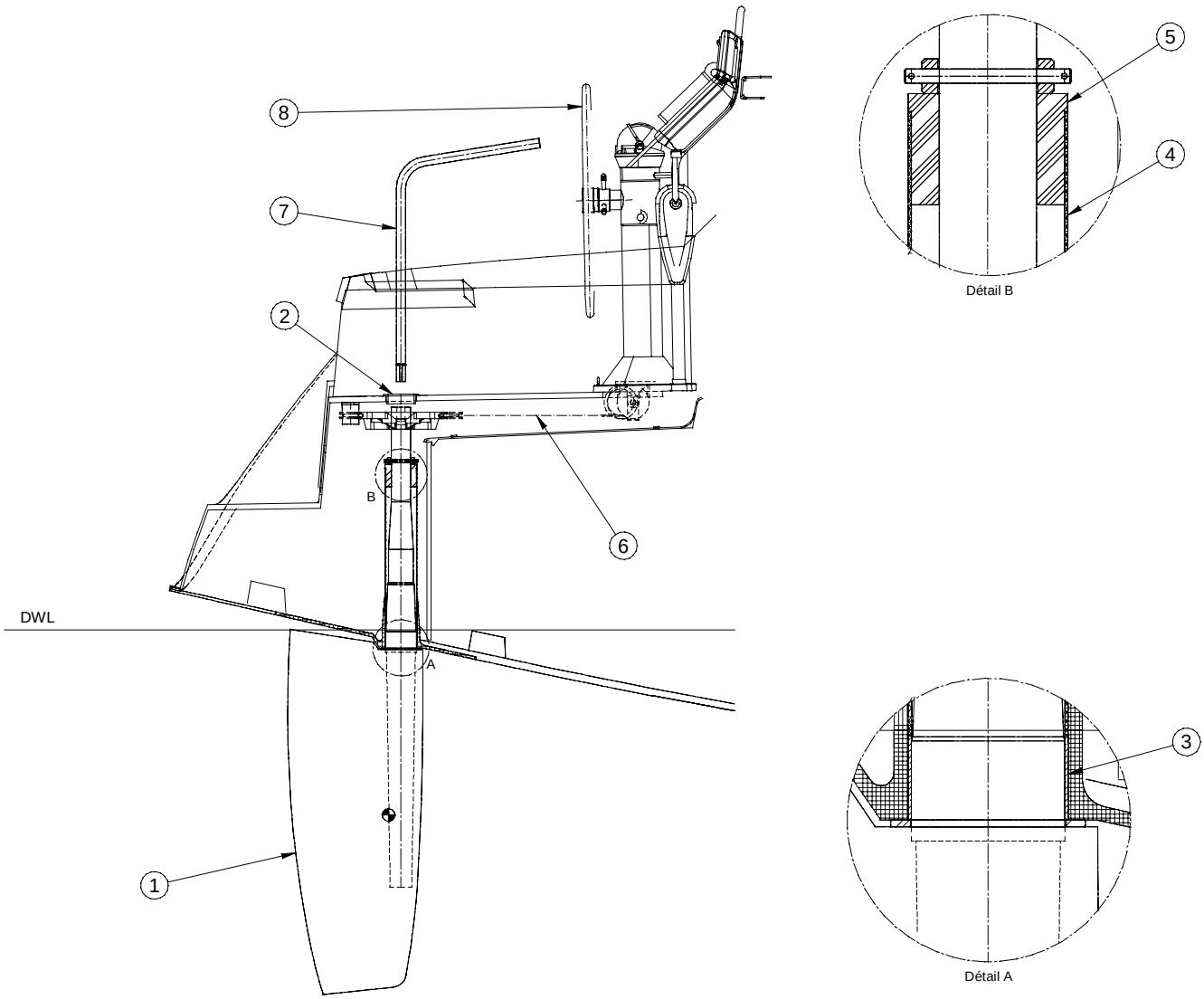
XV) STEERING SYSTEM

- At least once per year check the tension of the cables; in case of doubt, consult your dealer.

- Boats equipped with a steering wheel are provided with an emergency tiller, make sure that it is accessible at all times.
- Remove the deck plate, fit the tiller into the socket on the top of the rudder stock for operation.
- The emergency tiller is designed for running at reduced speed only in the event of a steering failure.

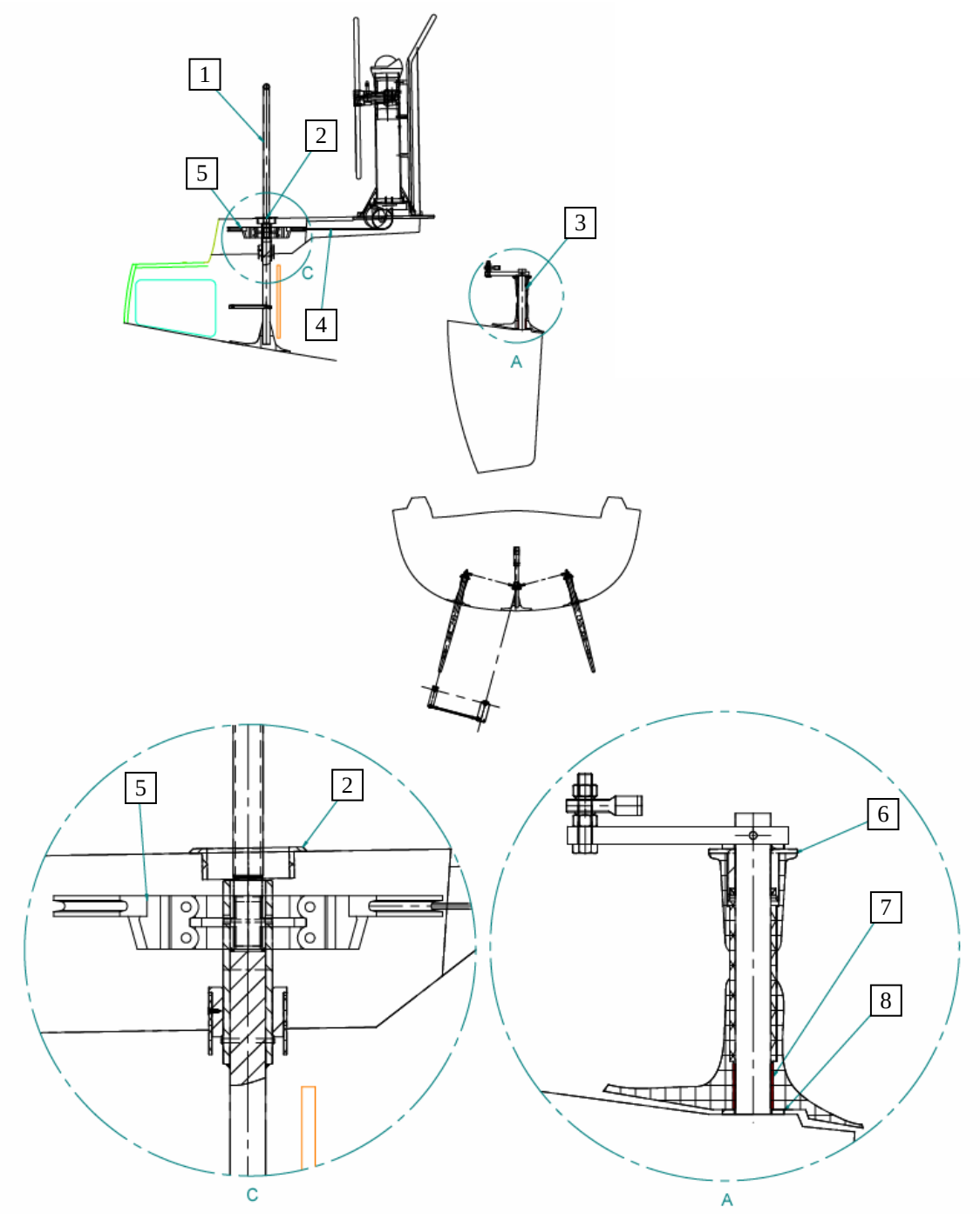
KEEL BOAT VERSION

REF	DESCRIPTION
1	Rudder blade + Shaft
2	Cover
3	Rudder tube collar
4	Rudder tube
5	Rudder tube upper ring
6	Steering cable
7	Emergency tiller
8	Steering wheel



CENTERBOARD VERSION

REF.	DESCRIPTION
1	Tiller (Emergency)
2	Rudder stock access cover
3	Rudder stock
4	Steering cable
5	Steering system quadrant
6	Rudder trunk ring
7	Split ring
8	Compensating ring



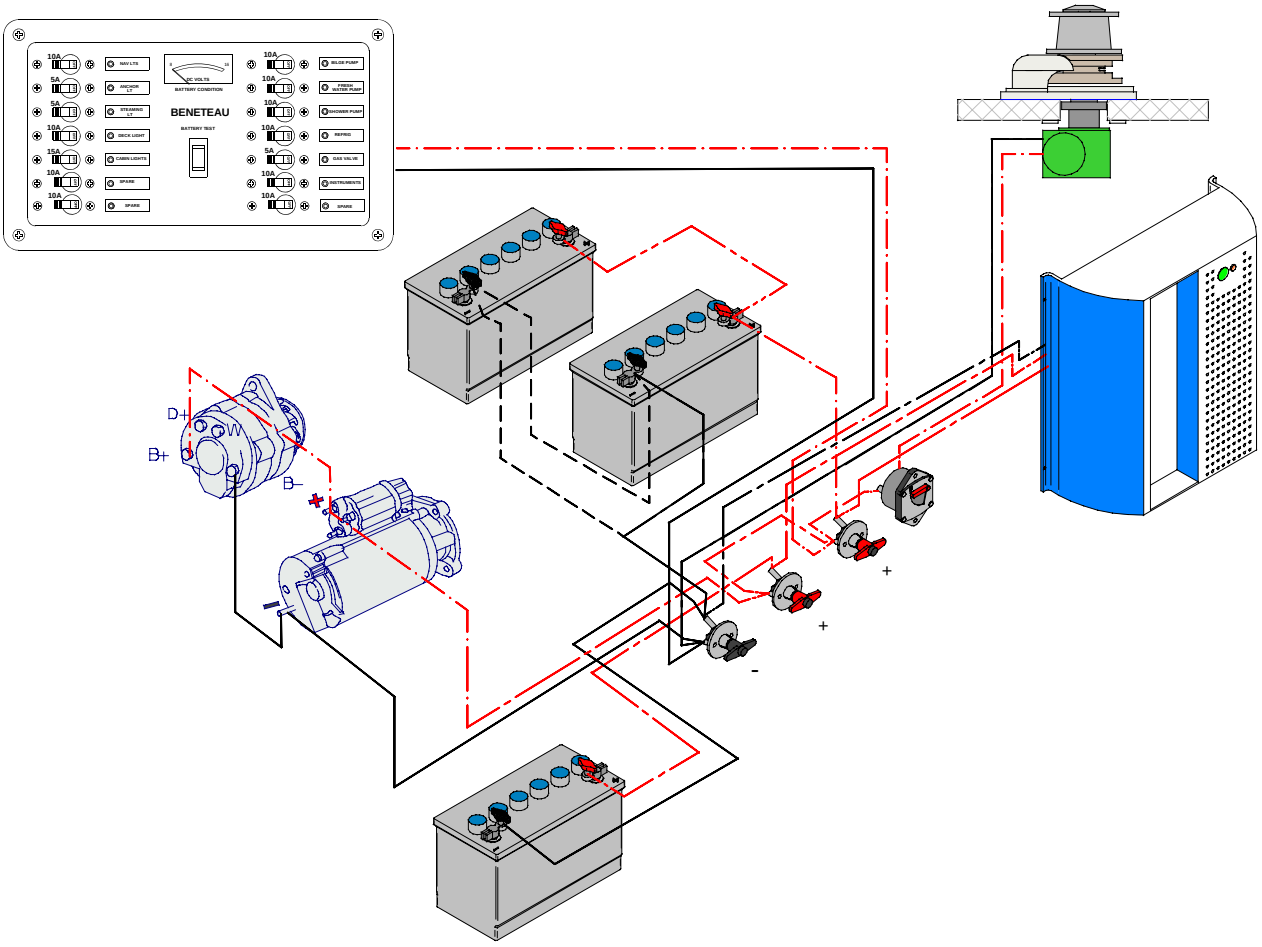
XVI) ELECTRICAL SYSTEMS

12V ELECTRICAL SYSTEM

- **Never work on a live electrical installation.**
- Batteries should be carefully lashed.
- Do not obstruct the battery ventilation ducts, some of them discharge hydrogen presenting a risk of explosion. Do not obstruct the battery ventilation ducts, some of them discharge hydrogen presenting a risk of explosion.
- Batteries should be handled with precaution. In case of the spillage of electrolyte, rinse the part of the body that has entered into contact with it abundantly and call a doctor.
- To avoid a short circuit between the two battery poles, do not stow conductive objects close to the batteries (metal tools,…).
- When charging or connecting / disconnecting batteries, the battery switches must be off.
- Never modify the characteristics of devices for the protection of overvoltage.
- Never modify an installation. Call on the services of a qualified marine electrician.
- Never install or replace electrical equipment or appliances with components exceeding the amperage of the system.
- Never leave the boat unattended when the electrical installation is switched on, except for the automatic bilge pump and systems for fire protection or burglar alarms.

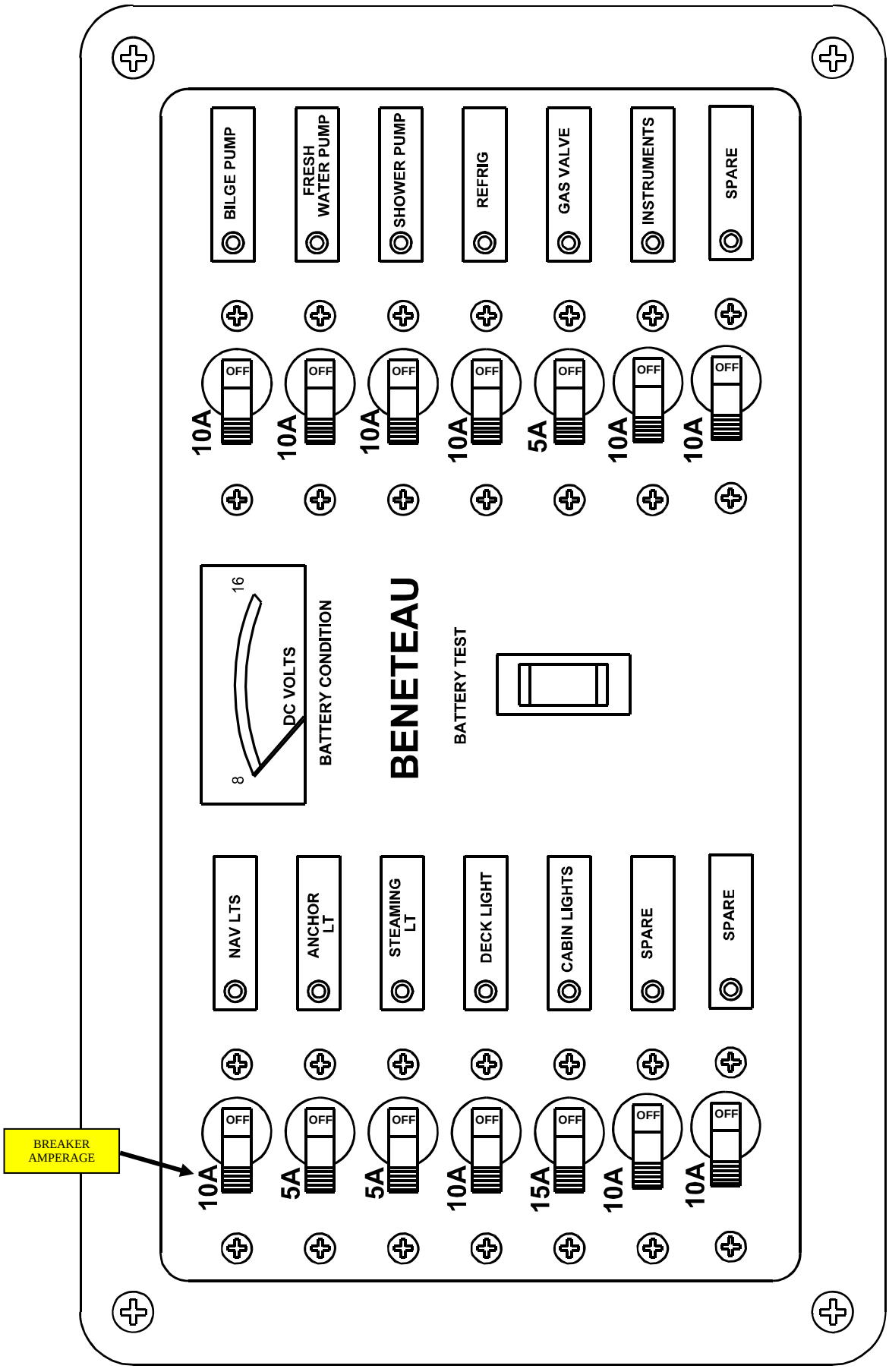
Please note; the wires of the 12V system are red for the positives and black for the negatives.

Electricity Layout

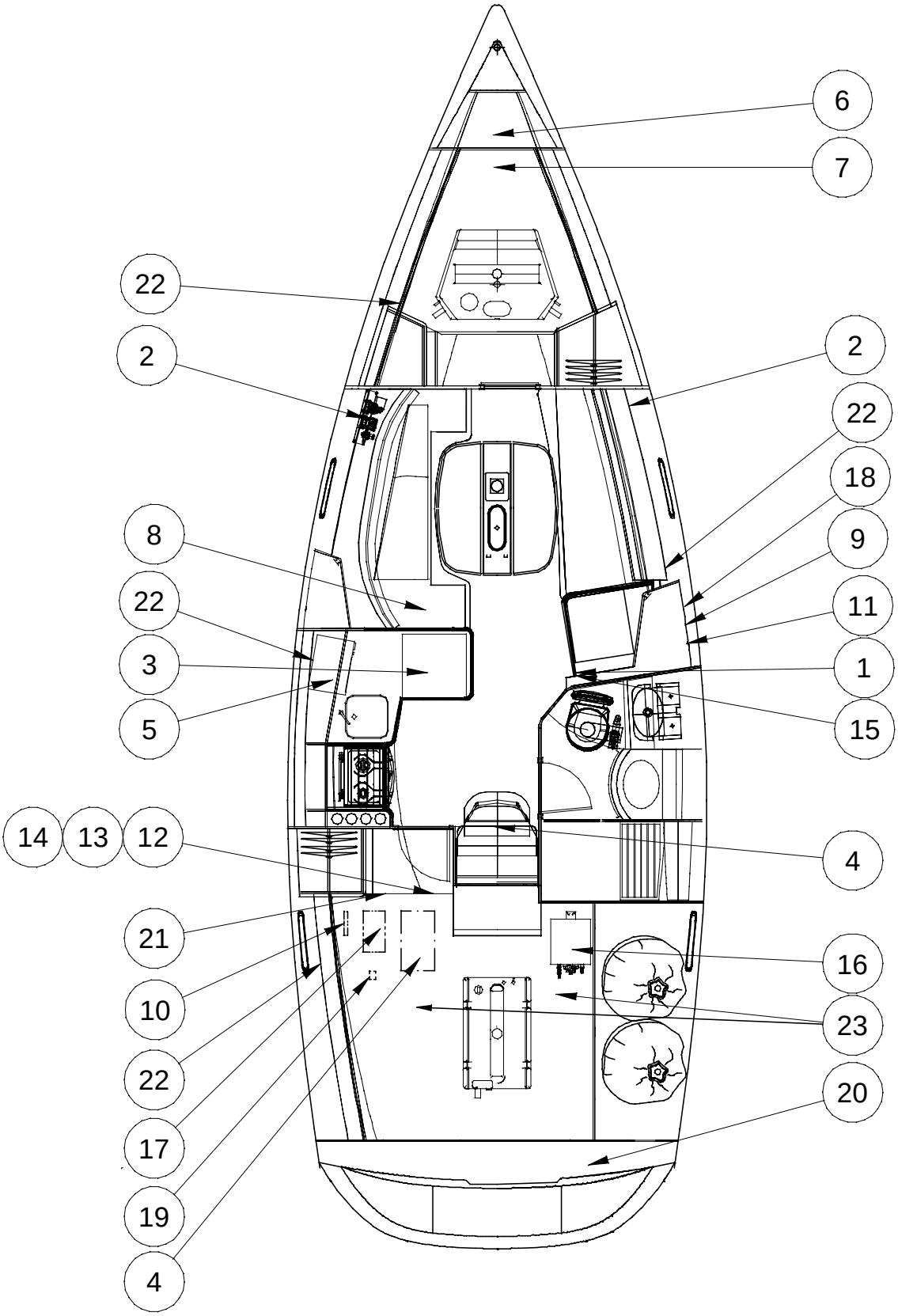


12v Panel

-


BILGE PUMP
FRESH WATER PUMP
SHOWER PUMP
REFRIG
GAS VALVE
INSTRUMENTS
SPARE
10A
10A
10A
10A
5A
10A
10A
OFF
16
8
DC VOLTS
BATTERY CONDITION
BENETEAU
BATTERY TEST
NAV LTS
ANCHOR LT
STEAMING LT
DECK LIGHT
CABIN LIGHTS
SPARE
SPARE
10A
5A
5A
10A
15A
10A
10A
BREAKER AMPERAGE

Location of battery switches, switchboards and electrical appliances



Location of battery switches, switchboards and electrical appliances

Before changing a fuse, switch off the battery switches.

Some of the equipment in the following table could be on option.

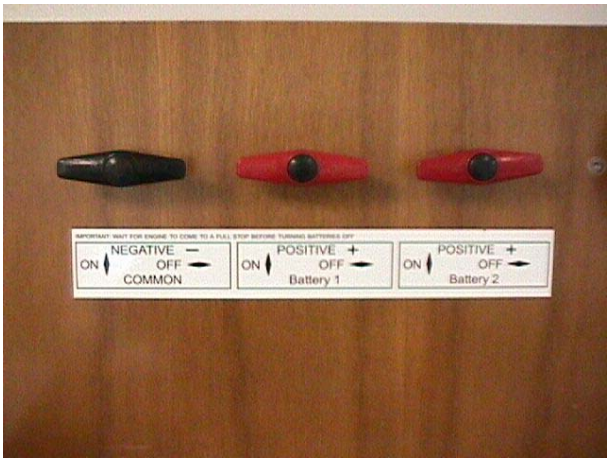
REF	DESCRIPTION
1	Air conditioning switch
2	Speaker
3	Fridge
4	Batteries
5	Microwave oven
6	Electric windlass
7	Windlass relay
8	Saloon, fwd & aft cabins air conditioning
9	Electrical panel
10	Circuit breaker 220/110V
11	Stereo
12	Battery switch
13	Windlass circuit breaker
14	Winch circuit breaker
15	Air conditioning circuit breaker
16	Water heater
17	Battery charger

REF	DESCRIPTION
18	Electrical panel fuses (2×100A)
19	Link relay
20	Autopilot computer
21	Autopilot relay
22	220/110V socket
23	Cockpit speaker

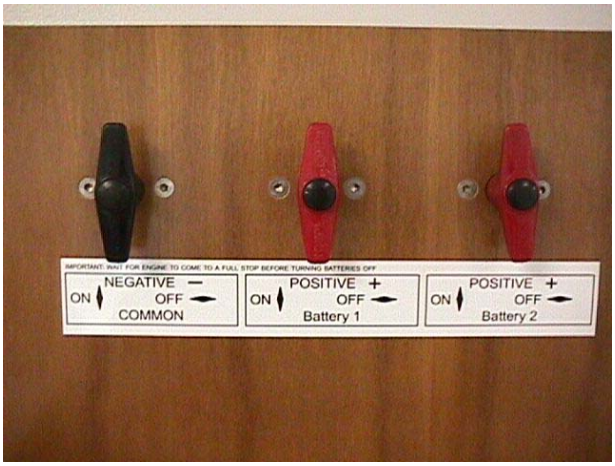
BATTERY SWITCH OPERATION

Never turn the negative battery switch off while engine is running.
Never turn all positive switches off while engine is running.
Battery 1 is the engine / start battery
Battery 2 is the service / house battery
Negative battery switch controls ground {DC12V negative} for all batteries.
To charge a battery with the engine the positive switch must be in the on position.

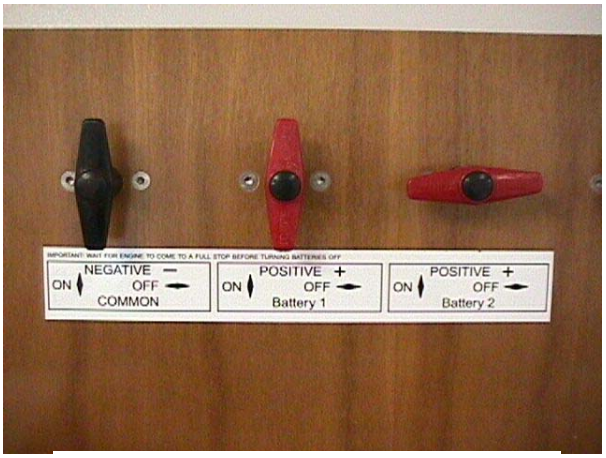
WARNING: Do not turn both positive battery switches off while engine is running



Everything is OFF, no 12V DC power
(when leaving the boat unattended)

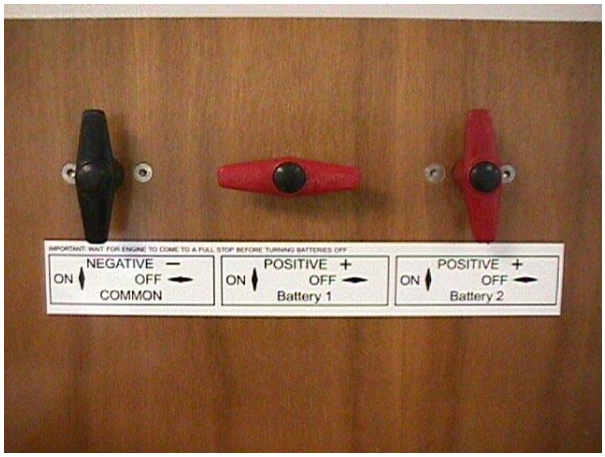


Everything is ON, 12VDC power available
to start engine and/or run equipment



Configuration to start engine, while
house/service is off or down

You can turn house switch ON, while
engine is running to charge house.



Engine is off , Run equipment from house only
(like at anchorage)

12 Volt Distribution Panel

The 12V power from your batteries is distributed throughout your boat via a distribution panel. This panel separates the current into separate circuits. Each circuit is protected by an individual breaker switch which allows you to turn the individual circuits on or off as needed at the panel. Each breaker switch has an individual amperage rating which it is designed to trip at in case it is overloaded.

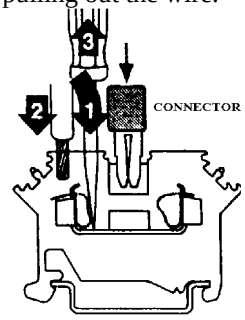
Terminal Block

The panel is wired to the boat thru a wago block strip. The boat's wiring harness and the panel are connected together at the wiring block strip using a series of plugs from each that snap onto opposite sides of the wiring block strip. Each of the boats positive 12V circuits connect to it's circuit breaker in the panel this way, i.e.: Wire #7 "Deck Light' connects across the wiring block to circuit breaker #7 on the panel. The negative side of the circuits lead to a common ground.

Each strip on the wago wiring block is an individual block mounted side by side on a frame to form the wiring block strip. These individual blocks can be connected to the blocks on either side of it to create a larger circuit as in the saloon lights. Wires are inserted into the block by:

1. Inserting a small screwdriver into the inside hole and pressing down.
2. Insert the wire.
3. Remove the screwdriver

Remove wires by inserting the screwdriver and pulling out the wire.



Batteries

The amount of charge the battery is receiving can be checked on the voltmeter, which is graduated in volts. This should be done when the battery is cold (has not been recharged or used for several hours beforehand). A reading of less than 11.5 V means that recharging is necessary.

WARNING! NEVER OPERATE ISOLATING SWITCHES WHILE THE ENGINE IS RUNNING - DOING SO COULD DAMAGE THE ALTERNATOR DIODES AND REGULATOR BEYOND REPAIR.

12V Charging System

The batteries must be recharged by one of the following systems:

Alternator

A belt drive alternator is mounted to the engine which produces 12V as needed by the batteries when the engine is running. The output of the alternator is wired to the battery switches.

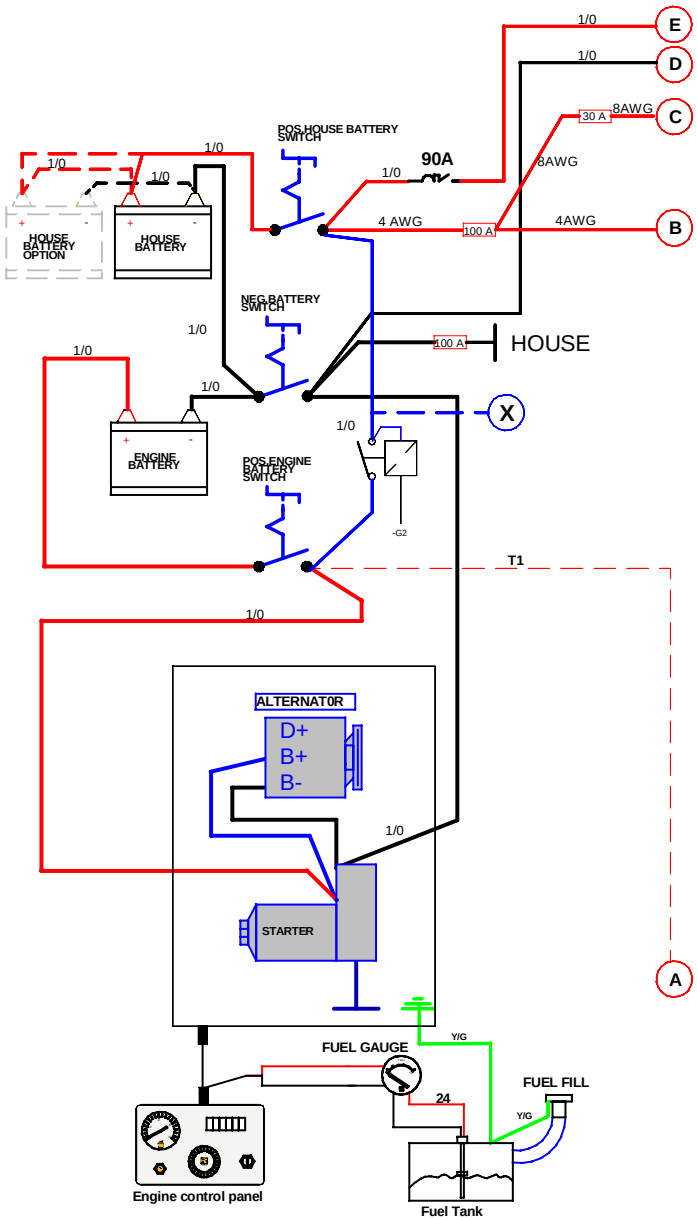
Battery Charger

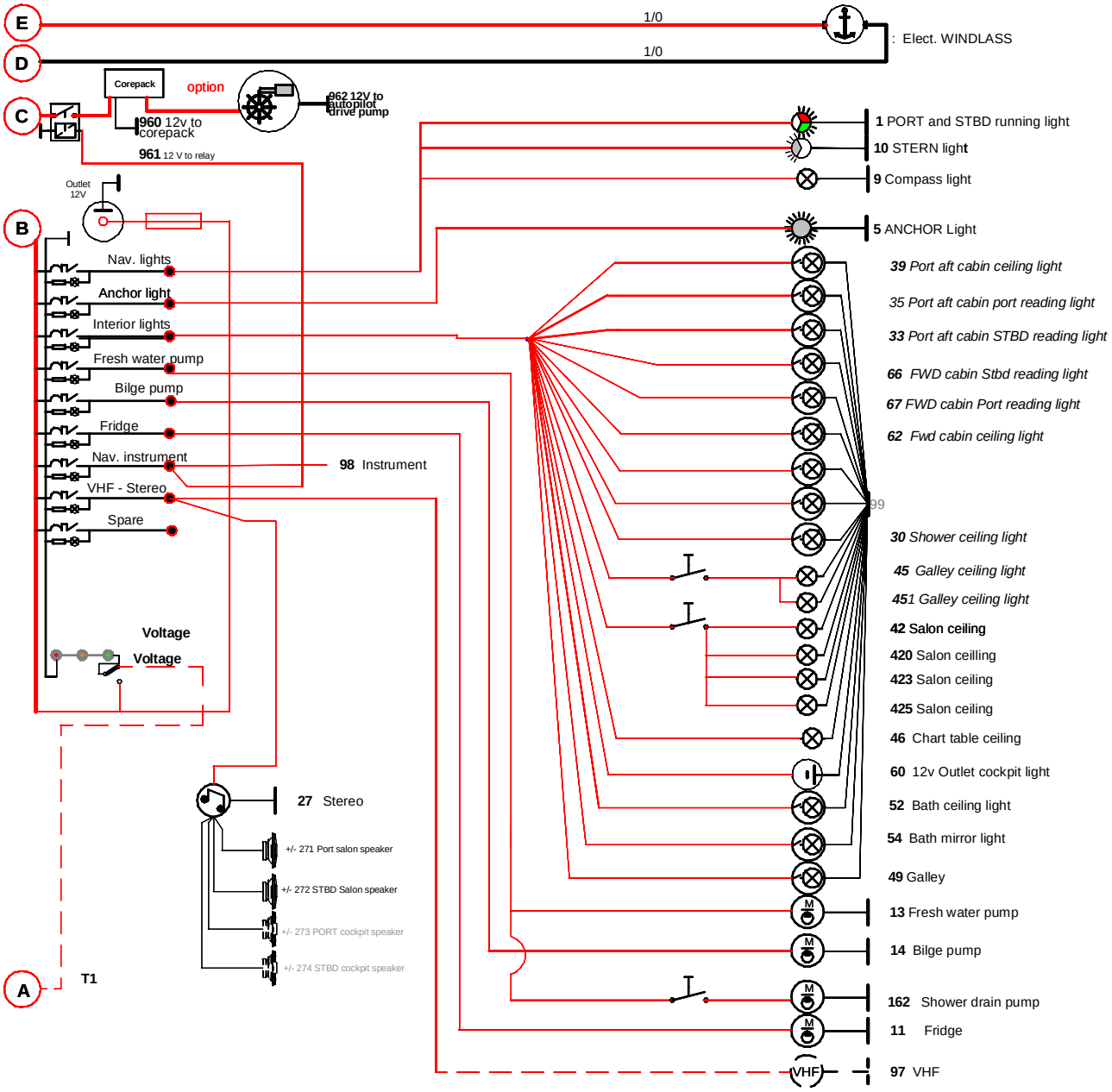
A marine battery charger is wired into the 110V shore power system. This charger converts the AC dock power to 12V DC and feeds it to the batteries.

WARNING! DO NOT OPERATE THE CHARGER WHEN THE ENGINE IS RUNNING.

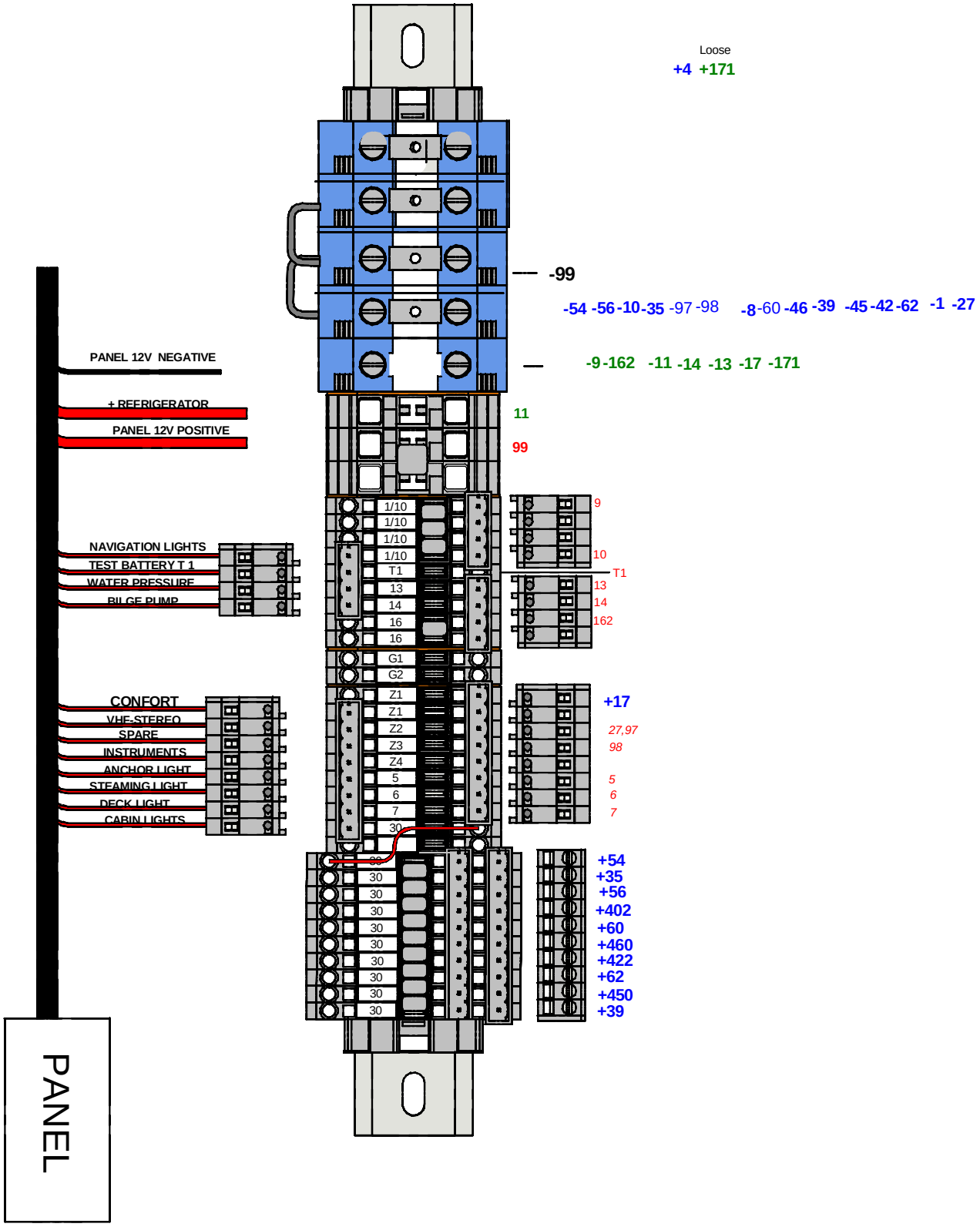
The battery charger is completely automatic; refer to the charger's manual for complete details. To charge the batteries using the charger: plug in the shore power cord and turn the charger breaker on at the 110V shore power panel.

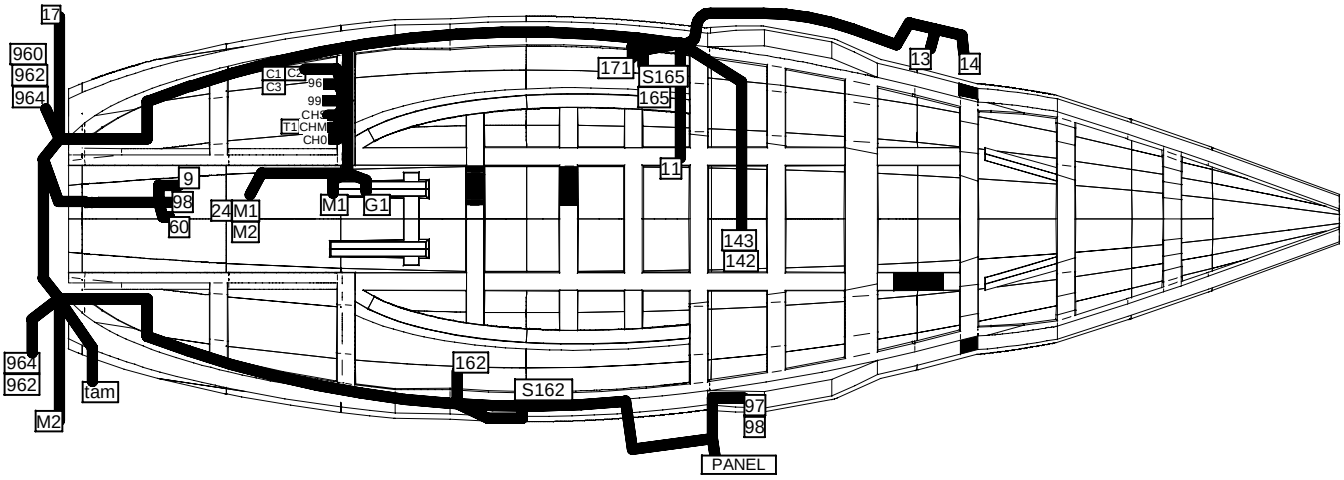
GENERAL 12V SCHEMATIC




E
D
C
B
A
1/0
1/0
: Elect. WINDLASS
Corepack
option
962 12V to autopilot drive pump
960 12v to corepack
961 12 V to relay
Outlet 12V
Nav. lights
Anchor light
Interior lights
Fresh water pump
Bilge pump
Fridge
Nav. instrument
VHF - Stereo
Spare
98 Instrument
Voltage
Voltage
T1
27 Stereo
+/- 271 Port salon speaker
+/- 272 STBD Salon speaker
+/- 273 PORT cockpit speaker
+/- 274 STBD cockpit speaker
1 PORT and STBD running light
10 STERN light
9 Compass light
5 ANCHOR Light
39 Port aft cabin ceiling light
35 Port aft cabin port reading light
33 Port aft cabin STBD reading light
66 FWD cabin Stbd reading light
67 FWD cabin Port reading light
62 Fwd cabin ceiling light
99
30 Shower ceiling light
45 Galley ceiling light
451 Galley ceiling light
42 Salon ceiling
420 Salon ceilling
423 Salon ceiling
425 Salon ceiling
46 Chart table ceiling
60 12v Outlet cockpit light
52 Bath ceiling light
54 Bath mirror light
49 Galley
13 Fresh water pump
14 Bilge pump
162 Shower drain pump
11 Fridge
VHF
97 VHF

WAGO BLOCK

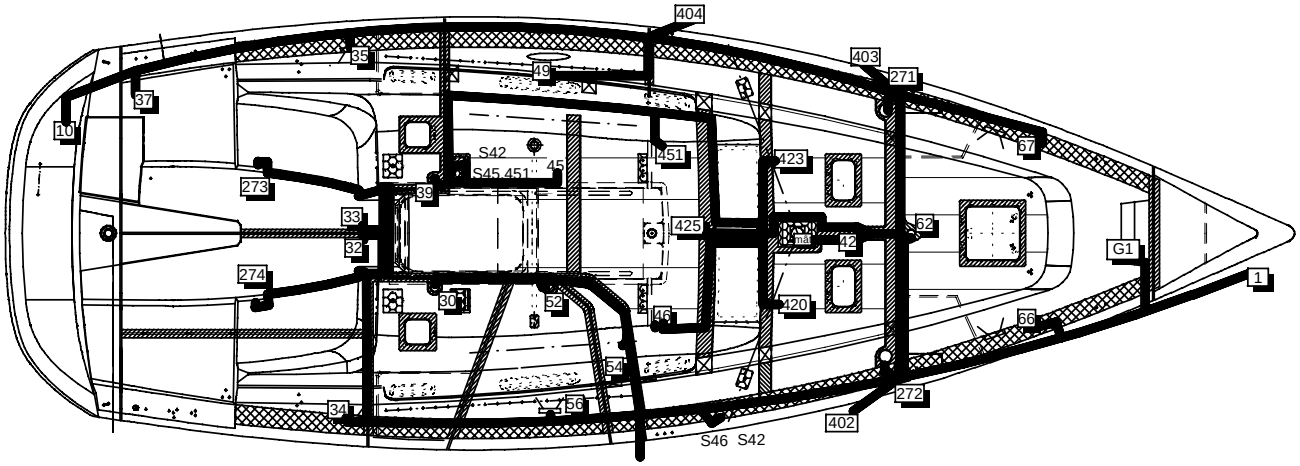

Loose
+4 +171
-99
-54 -56 -10 -35 -97 -98 -8 -60 -46 -39 -45 -42 -62 -1 -27
-9 -162 -11 -14 -13 -17 -171
PANEL 12V NEGATIVE
+ REFRIGERATOR
PANEL 12V POSITIVE
11
99
NAVIGATION LIGHTS
TEST BATTERY T 1
WATER PRESSURE
BILGE PUMP
CONFORT
VHF-STEREO
SPARE
INSTRUMENTS
ANCHOR LIGHT
STEAMING LIGHT
DECK LIGHT
CABIN LIGHTS
1/10
1/10
1/10
1/10
T1
13
14
16
16
G1
G2
Z1
Z1
Z2
Z3
Z4
5
6
7
30
30
30
30
30
30
30
30
30
30
9
10
T1
13
14
162
+17
27,97
98
5
6
7
+54
+35
+56
+402
+60
+460
+422
+62
+450
+39
PANEL



M1	8x1	Yel/gre	7.700	105° TIN			Grounding deck fill to tank
M2	8x1	Yel/ gre	2.000				Grounding tank to engine block
24	16x2	R / B	7.000				Fuel tank gauge
241	16x2	R B	7.000 0.500				Power to fuel tank gauge
G1	14x1	BLK	11.650			Plugged to connector A	windlass switch
G2	14x1 14x1	BLK RED	1.400 0.750				Parrallel switch
T1	16x1	BLK	10.850				Engine battery test
99	4x1 4x1	BLK RED	10.650 10.650				Main 12V
AC	8x1	Yel / gree	11.850				AC panel ground to engine
990	4x1 4x1	BLK RED	0.600 0.450				12v to Panel
162	14x1 14x1	BLK RED	7.450 15.05				Shower drain
14	14x2	R / B	15.250				Bilge pump
13	14x2	R / B	15.250				Fresh water pump
171	16x2	R / B	14.950				Propane gas light
17	16x2	R / B	9.650				Propane solenoid
11	8x2	R / B	13.550				Fridge
98	14x2	R / B	12.050			Plugged to connector A	Instruments
60	14x2	R / B	12.450			Plugged to connector A	12V cockpit
9	16x2	R / B	10.750			Plugged to connector A	Compass light
97	16x2	R / B	0.800	105° TIN		Plugged to connector A	12V-VHF
10	14x1	R	0.800			Plugged to connector A	STERN LIGHT
143	14x1	R	18.250				Bilge pump float switch
144	14x2	R / B	10.850				Constant power
WIRE #	GAUGE	COLOR	LENGHT	TYPE CABLE		NOTE	DESIGNATION

Material:		Désignation :		Visa :
		scale:	TOL.GEN.:	
C	Add AC Yellow green	01/21/05	HULL Harness 12V 14343	Design date :07/04/04 By : S.G / P.LG
B	Add +/-144, 143	01/5/05		
A	Change 11	12/7/04	BENETEAU USA 1313 West Hwy 76 MARION, SC 29571	Kg
Ind.	Modification	Dates		N°:066897 C

12V DECK HARNESS LAYOUT



WIRE #	GAUGE	COLOR	LENGHT	TYPE CABLE	NOTE	DESIGNATION
10	14x2	R / B	13.600	105° TIN		Stern light
37	16X2	R / B	2.200		picked from 35	Port aft cabin port aft reading light
35	14X2	R / B	10.400			Port aft cabin port fwd reading light
49	16X2	R /B	5.700		picked from 37	Fluorescent galley
67	16X2	R / B	6,600		picked from 66	FWD Cabin port reading light
G1	14X1	BLK	6.200		plug to connector A	négative windlass switch
422	14X1	RED	2.300			Power 2 way salon
421	14X2	R / R	9.400			2 way salon
42	~~14X1~~	~~BLK~~	~~5.150~~			Salon ceiling
	~~14X1~~	~~RED~~	~~5.550~~			
420	16X2	R / B	1.800		picked from 42	Salon ceiling
423	16X2	R / B	1.400		picked from 420	Salon ceiling
425	16X2	R / B	1.300		picked from 423	Salon ceiling
450	16X1	RED	10.100			Power switch galley
45	~~16X1~~	~~BLK~~	~~10.800~~			Galley ceiling
	~~16X1~~	~~RED~~	~~1.300~~			
451	16X2	R / B	3.500		picked from 45	Galley ceiling
460	16X1	RED	2.300			power for switches at Chart table
46	~~16X1~~	~~BLK~~	~~7.150~~			Chart table ceiling light
	~~16X1~~	~~RED~~	~~7.850~~			
66	16X2	R / B	3.100		picked from 62	FWD cabin Stbd reading light
62	14X2	R / B	4.700			FWD cabin ceiling
39	16X2	R / B	10.500			Port aft cabin stbd reading light
279	16X1	RED	0.100			power antenna
270	16X1	RED	0.100			Stereo memory
27	16X2	R / B	1.500			12V stereo
271	16X2	R / B	6.200			Port salon speaker
272	16X2	R / B	3.700			Stbd salon speaker
273	16X2	R / B	8.300			Port cockpit speaker
274	16X2	R /B	6.650	105° TIN		Stbd cockpit speaker

Material: | Désignation : | Visa :

scale: | TOL.GEN.:

DECK Harness
12V 14343

Design date :07/04/04
By : S.G / P.LG

Ind	Modification	Dates
B	Add coax	01/07/05
A	Delete 11	12/07/04

BENETEAU USA
1313 West Hwy 76
MARION, SC 29571

Kg

N°:066898 B

WIRE #	GAUGE	COLOR	LENGHT	TYPE CABLE	NOTE	DESIGNATION
1	14x2	R / B	6.500	105° TIN		BOW light
54	14x2	R / B	2.600			Mirror light Bath 3 cab version
52	16x2	R / B	1.550		picked from 54	Bath ceiling light
30	16x2	R / B	1.450		picked from 52	Bath ceiling version 2 cab Stbd aft cabin ceiling light version 3cab
56	14x2	R / B	3.000			Mirror light Bath version 2 cab
34	14x2	R / B	3.300		picked from 56	Stbd aft cabin stbd reading light
32	16x2	R / B	3.750		picked from 34	Stbd aft cabin port reading light
33	16x2	R / B	2.350		picked from 32	Port aft cabin Stbd reading light
6	14x1	RED	5.550			Steaming light
5	14x1	RED	5.550			Anchor light
4	14x1	RED	5.550			option mast light
7	14x1	RED	5.550			Deck light
8	14x1	BLACK	5.550			common negative mast
98	14x2	R / B	1.200		plug to connector A	12V instruments
97	14x2	R / B	1.200		plug to conector A	Power VHF
60	16x2	R / B	1.200		plug to conector A	outlet12V cockpit
9	16x2	R / B	1.200		plug to conector A	Compass light
402	16x2	R / B	3.800			STBD salon reading light
403	16x2	R / B	3.000		Picked from 402	Port fwd salon reading light
404	16x2	R / B	3.000	105° TIN	Picked from 403	Port aft salon reading light
~~11~~	~~10x1~~	~~R~~	~~1.200~~		~~plug to connector A~~	~~FRIDGE~~
VHF	coax		5.150			VHF coax panel to mast step

Material: | Désignation : | Visa :

scale: | TOL.GEN.:

DECK Harness
12V 14343

Design date :07/04/04
By : S.G / P.LG

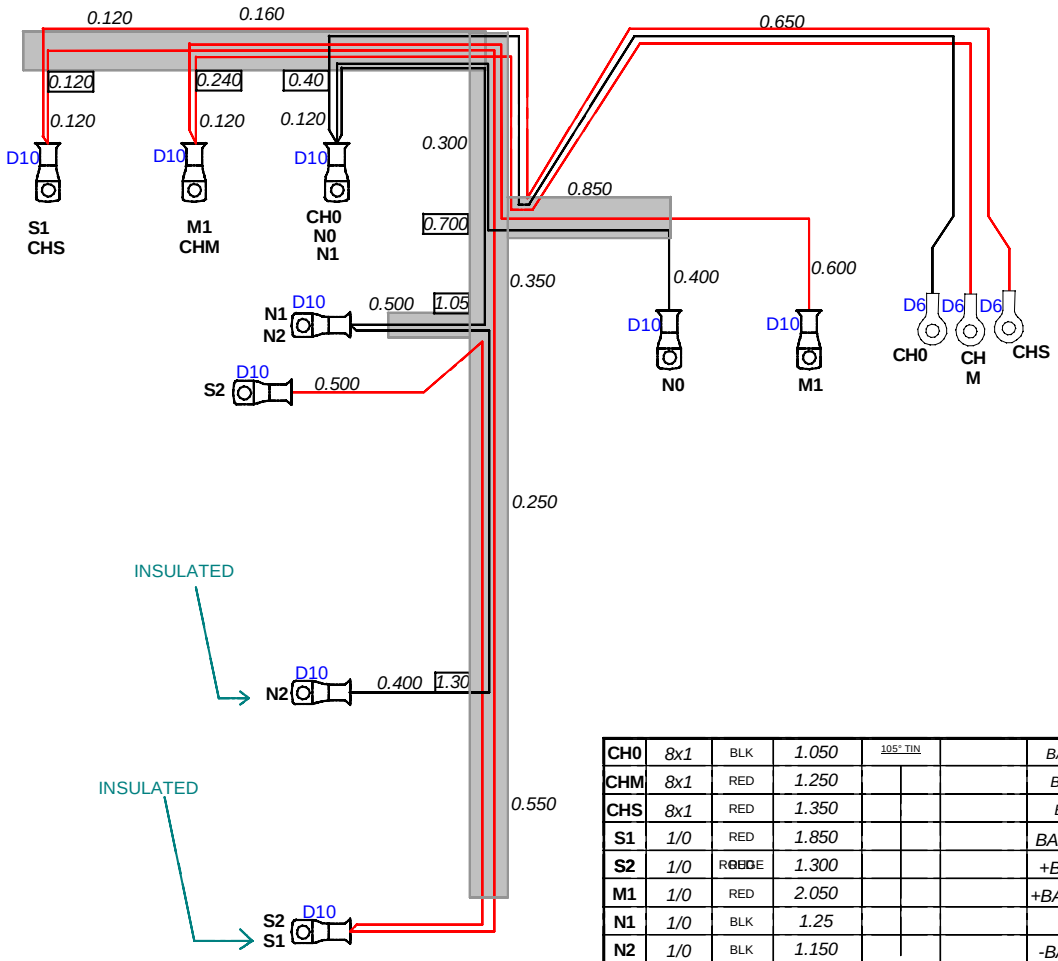
Ind	Modification	Dates
B	Add coax	01/07/05
A	Delete 11	12/07/04

BENETEAU USA
1313 West Hwy 76
MARION, SC 29571

Kg

N°:066898 B

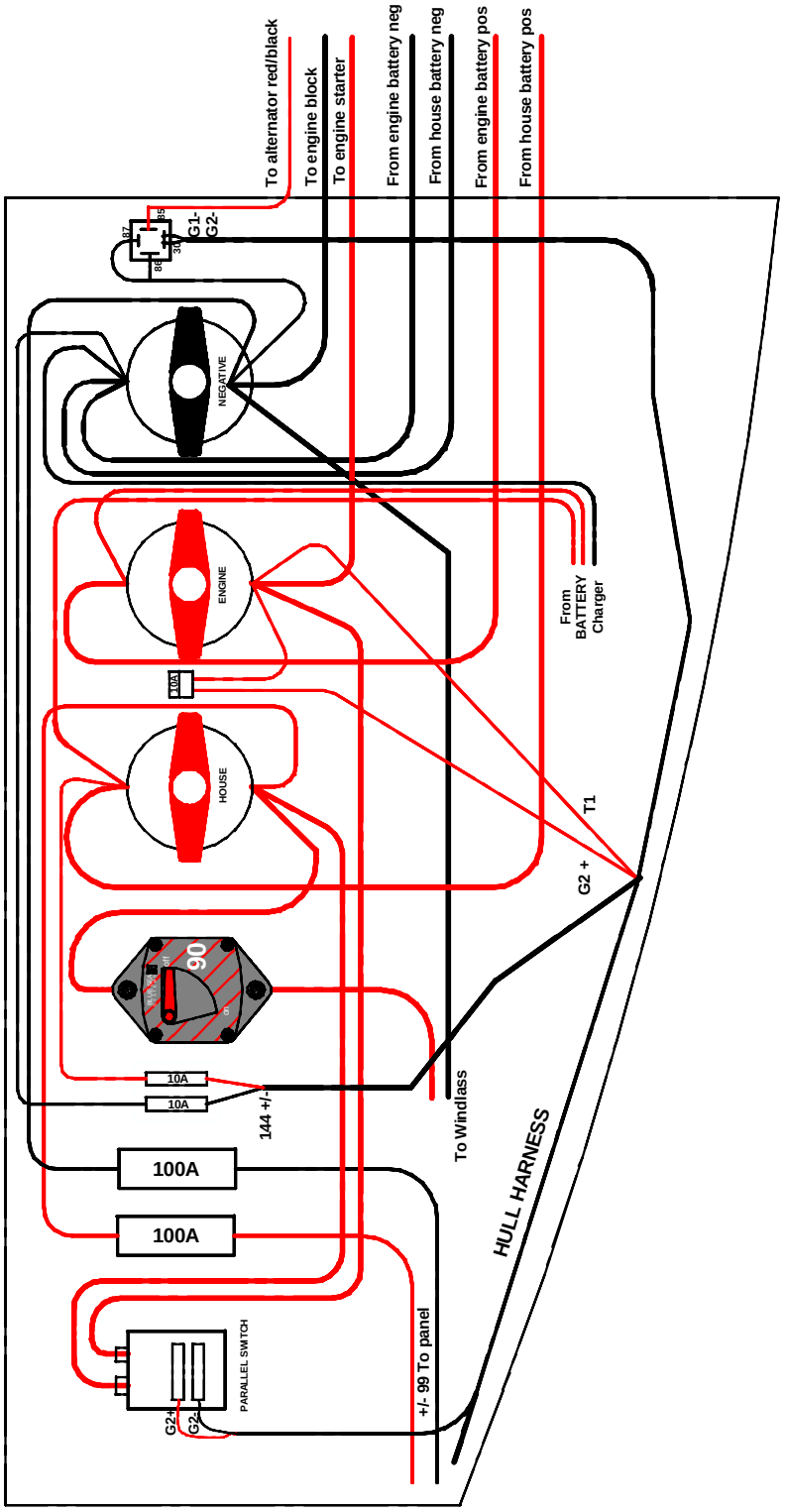
12V BATTERY CABLE HARNESS



CH0	8x1	BLK	1.050	105° TIN		BAT.Charger output negative
CHM	8x1	RED	1.250			BAT.Charger output engine
CHS	8x1	RED	1.350			BAT.Charger output house
S1	1/0	RED	1.850			BATTERY 3 / BSW +HOUSE
S2	1/0	RED/BLUE	1.300			+BATTERY 2 / +BATTERY 1
M1	1/0	RED	2.050			+BATTERY 1/ BSW + ENGINE
N1	1/0	BLK	1.25			BATTERY 2 / BSW -
N2	1/0	BLK	1.150			-BATTERIE 3 / -BATTERIE 2
N0	1/0	BLK	1.65	105° TIN		-BATTERIE 1 / BSW-
Wire #	Gauge	COIOR	Lenght	TYPE CABLE	Note	DESIGNATION

Material:	Désignation :		Visa :	
	scale :	TOL.GEN.:		
	Battery cable Harness 12V 14343		Design date :07/04/04 By : S.G / P.LG	
				Kg
Ind. Modification	00/00/00 Dates		N°:066902	

BATTERY SWITCH BOARD



110V-220V ELECTRICAL SYSTEM

The shore power system consists of a marine power cord adapter plug mounted on the transom of the boat which is connected to an 110V panel that distributes the 110V AC current to the outlets and appliances on your boat. The shore power system is rated for a maximum of 30 AMPS; care must be taken to not overload the system.

WARNING! DO NOT WIRE OPTIONAL AIR CONDITIONERS TO THE SHORE POWER SYSTEM; INSTALL A SEPARATE SERVICE AND PANEL.

The 110V panel consists of breaker switches which protect and turn the individual circuits on and off. The charger, hot water heater and the 110V outlet circuit are on separate breakers.

Boats are fitted with a 110V/60Hz or a 220V/50Hz system. We advise you to follow these steps in order to avoid the risk of electric shock and fire.

Do not work on a live fitting.

Connect the boat / shore supply cable to the boat before you plug it into the shore supply socket with the breaker off. Turn the breaker on last.

Do not immerse the boat / shore cable socket.

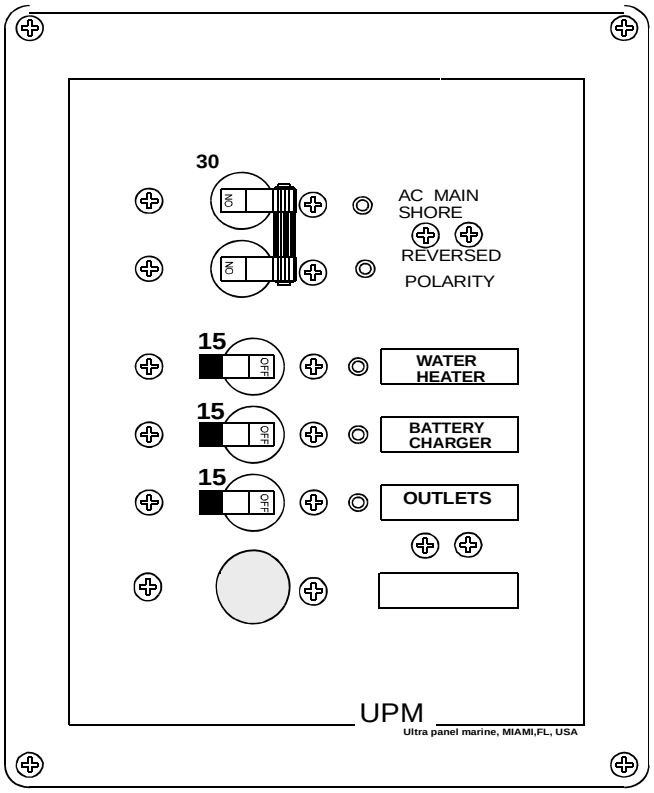
Turn off the shore supply switch on board before you plug in or unplug the boat / shore supply cable.

Do not tamper with the connections of the Boat / shore supply cable. Use only compatible connections.

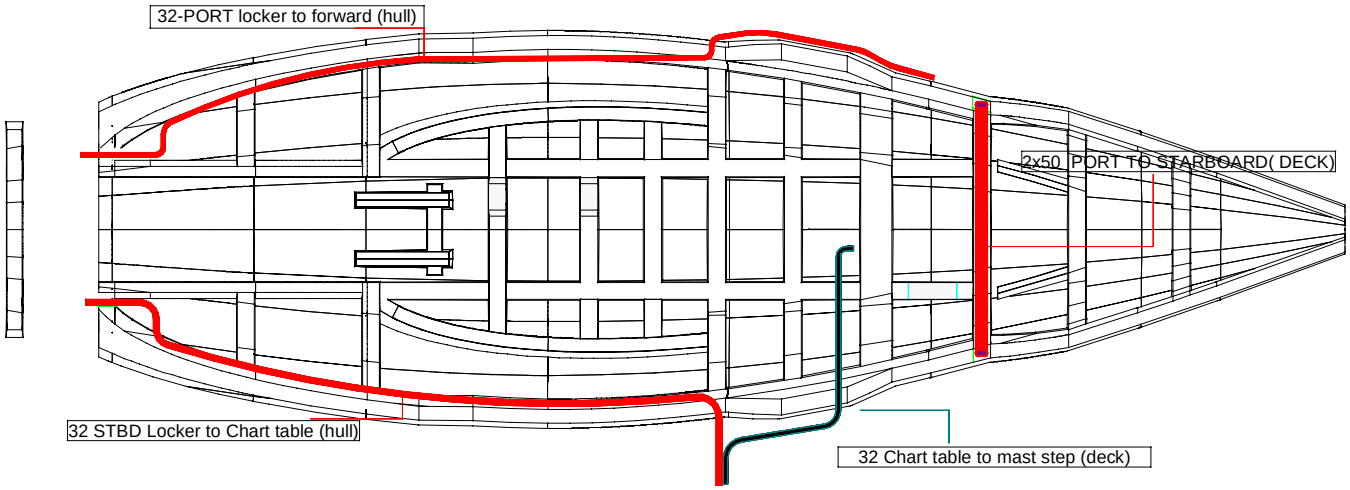
Never swim in a marina around boats connected to shore power. If necessary for maintenance unplug the boat being worked on and surrounding boats.

WARNING! DO NOT OPERATE THE 110V WATER HEATER DRY.

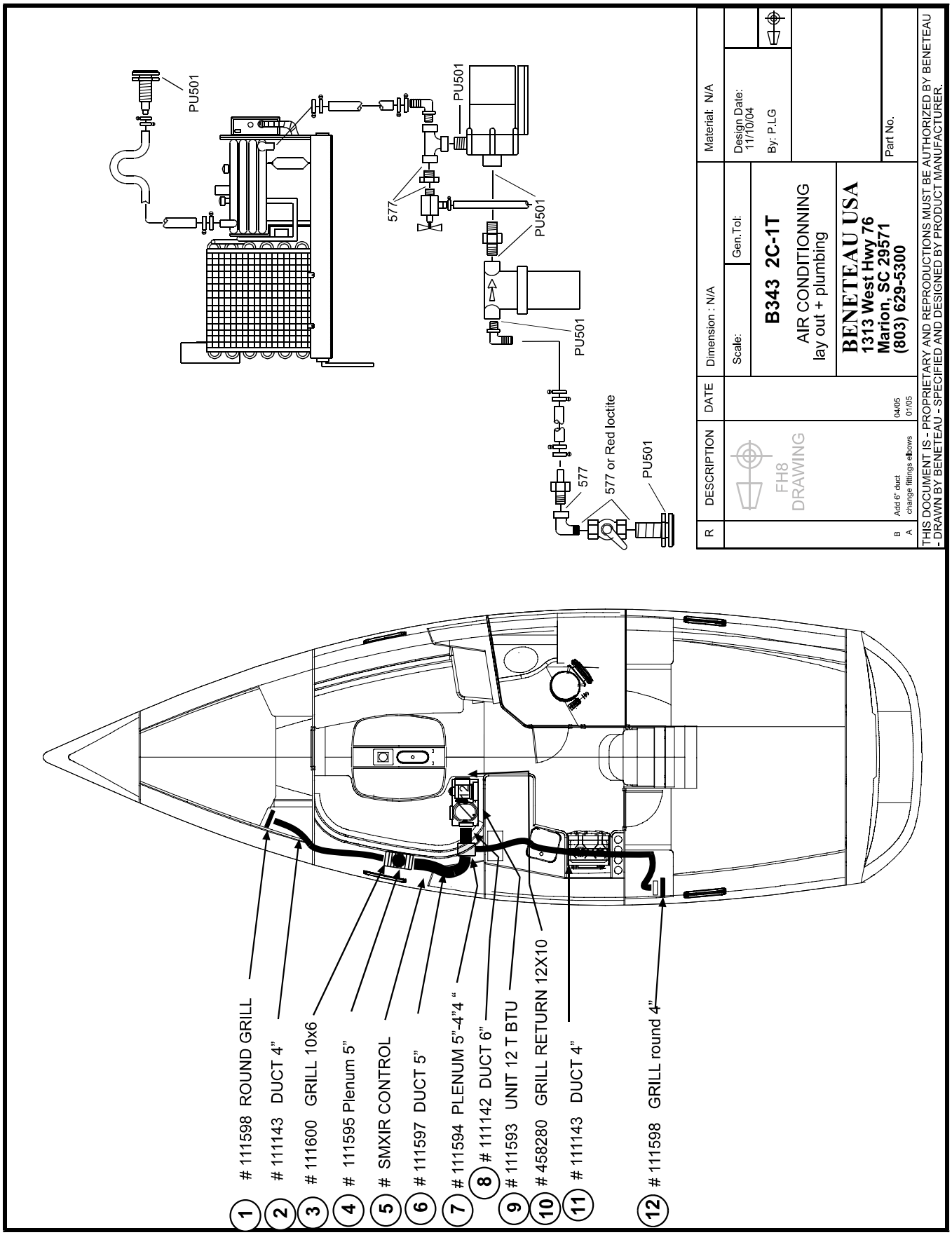
110V Panel



LAYOUT OF THE CONDUITS



AIR CONDITIONER (option)



XVII) LP GAS SYSTEM

GAS STOVE

Your Beneteau is equipped with a propane stove and oven combination. This unit is located in the galley and is gimbaled for your safety and comfort in a seaway. The stove is supplied by a storage bottle located in a self draining locker in the cockpit. The pressurized gas is fed thru a regulator at the bottle which reduces the pressure and feeds the propane gas to a 12V solenoid valve. The solenoid is a remotely controlled valve which turns the flow of gas on and off from a switch located at the 12V distribution panel. A pressure gauge is located before the regulator to check the gas system for leaks.

OPERATION

WARNING! ALWAYS LEAVE BOTH THE SOLENOID VALVE AND THE VALVE ON THE GAS BOTTLE CLOSED WHEN THE STOVE IS NOT BEING USED.

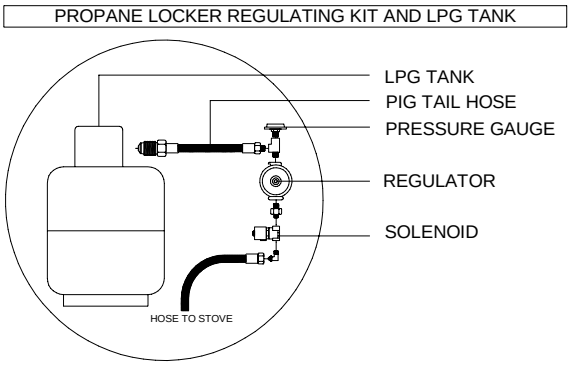
1. Read and follow the instructions printed on the propane warning labels located at the appliance and under the lid of the gas storage locker.
2. Be sure all burner and oven knobs are in the off position before attempting to operate the galley stove.
3. Activate the main 12V system and be sure the solenoid switch is in the off position.
4. Open the supply valves and test the system for leaks following the instructions on the locker warning label.
5. Switch on the solenoid using the breaker on the 12V panel.
6. Light the appliance in accordance with the stove manufactures procedures. Generally each burner is lit by turning the burner control knob to the lighting position and then pushing the knob in. A safety thermocouple will keep the valve open as long as the burner remains lit. If the flame goes out it will stop the gas flow to the burner.

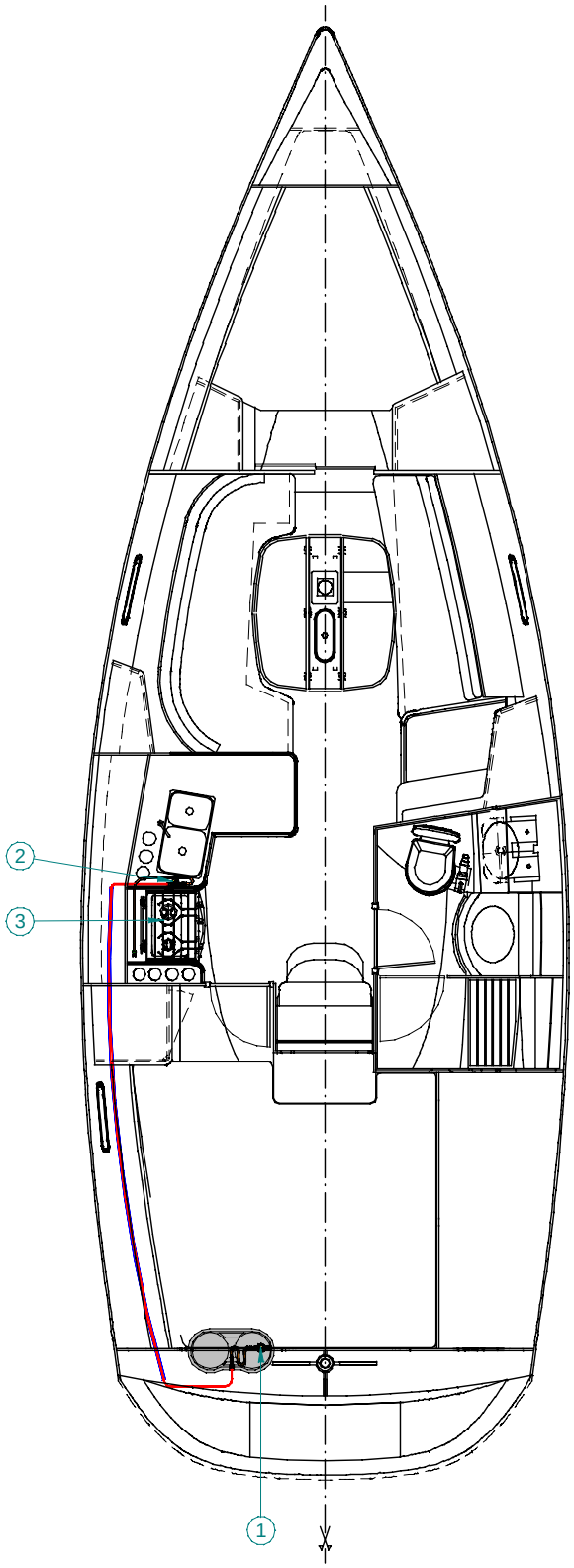
Note: If the odor of gas is detected at any time, turn off all electrical and mechanical systems, extinguish any open flames and immediately check for a propane leak. Propane is a heavy gas and may settle in the bilge which represents an explosion and fire hazard.

- **Never install flammable materials above cooker (curtains, papers, serviettes, etc…).**
- **Never leave the boat unattended when gas or spirit appliances are operating.**
- **In the case of gas smells or the accidental extinguishing of the flames (even though the gas supply is automatically shut-off in case of extinction), close the taps and create a draught of air to evacuate residual gas. Look for the cause of the problem.**
- **Do not smoke or use a naked flame when looking for a gas leak or when changing a gas tank or when working on the gas system.**
- **Appliances burning combustible fuels consume cabin oxygen and reject combustion gases into the boat. It is therefore necessary to ventilate the boat when cooking or gas appliances are being used. Do not obstruct ventilation holes in the boat (ventilator cowls) and at least leave the door open.**
- **Close the gas supply line valve and the gas tank valves when the appliances are not in use.**
- **For cookers with integral gas cylinders, change the cylinders outside the boat. Test before replacing the cooker in the galley. Make sure that you lock the cooker gimbals after replacing it.**
- Never use cooking appliances to heat the boat.
- Never obstruct openings intended for ventilation.
- Make sure that the burner knobs are closed before opening the supply line or tank valves.
- Close the valves before changing a tank and immediately in case of an emergency.
- Stow spare tanks in ventilated housings on deck or in lockers provided for this, which should be gas tight and ventilated towards the outside.
- Never obstruct access to components of the gas system notably to the valves (tank and cooker).
- The flexible hoses connecting the tank to the extremity of the system at one end and the cooker at the other should be changed in accordance with regulations in force in your country. Use only hoses complying with the standards of your country.
- Do not use gas tank lockers for stowing any other equipment.
- Be careful not to damage the thread of the tank onto which is fitted the regulator. Check the condition of the regulator every year and change if necessary. Use regulators identical to those installed.
- Make sure that empty tank valves are closed and disconnected. Keep protective devices in place; caps and bungs.
- Never use ammonia based solutions for cleaning or leak detection.

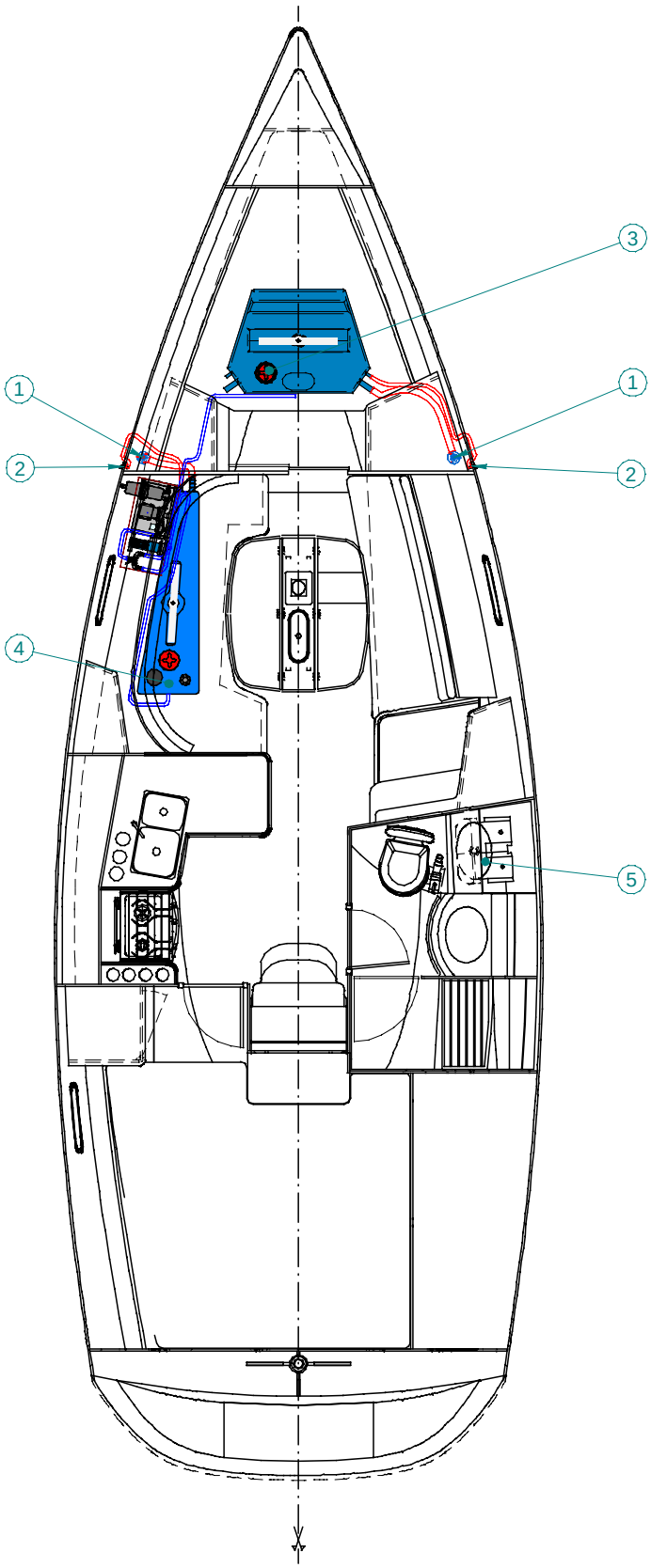
LAYOUT OF THE GAS SYSTEM

REF	DESCRIPTION
1	Regulator
2	Tap
3	Stove/oven





XVIII) FRESH WATER AND WASTE TANKS



Some of the equipment in the following table could be on option.

REF	Description
1	Water tank filler
2	Water tank breather
3	Fwd water tank (160L estimated)
4	Port water tank (95L estimated)
5	Waste rigid tank (80L estimated)

- **These capacities cannot be totally used depending on the trim, loading and the position of filling point(s) and / or eventual emptying point(s).**
- Do not discharge the toilets close to shore.
- Inform yourself about local environmental protection regulations, and the respect of codes of good practice.
- Respect international regulations against pollution of the marine environment (Marpol).

The operating principle for the system is described in the attached schematic diagram.

- After each use, rinse the system: fill the bowl with fresh or sea water then empty.
- Products to use for cleaning should be domestic cleaning products.
- The system should be empty during storage below freezing temperatures (32°F/0°C).

For the respect of the environment:

- Do not discharge the contents of the holding tanks close to the shore; use the pump-out stations at marinas or harboursfor emptying the holding tanks before leaving harbour.
- Make sure that the holding tank discharge cock is closed in order to avoid any inadvertent discharging.

XIX) FRESH WATER SYSTEM

The fresh water system supplies the sink in the galley, the wash basin and shower in all of the heads, and the transom shower. This system is pressurized by an electric pump. There is a filter between the water tank manifold and the pump. It is necessary to check and clean this filter regularly.

Never run an electric pump when the tank is empty. It may burn out the pump.

OPERATION.

1. Fill the water tanks. **(SEE DECK SECTION FOR WATER FILL LOCATIONS)**
2. Select the tank for use at the valves on the manifold.
3. Turn on the fresh water pump at the panel.
4. Open all taps and bleed off any trapped air in the lines until the water runs clear with no sputtering.
5. Close all taps and the pump will turn off when it reaches operating pressure. If the pump continues to cycle check all fittings for leaks.

- Never fill up with water and diesel at the same time if the filling points are close to each other, to avoid the risk of contaminating one liquid with the other.
- Similarly, avoid risk of contamination by never handling a product that might cause pollution close to the deck fill while taking on water.
- If unused for a long time, the tanks and pipes need to be flushed with a solution of acetic acid (solution of vinegar and water).
- The sink and washbasins are drained through their own thru-hull valves; these should be kept closed when the fresh water system is not in use.
- Do not force hosepipe nozzle down the fill pipe as a high back pressure could occur. Check the vent/overflow fitting to avoid over filling.

XX) MARINE TOILET & HOLDING TANK

GENERAL DESCRIPTION

The marine sanitary system consists of a marine toilet (head), a holding tank and a series of thru hull intakes, discharges and valves to control the intake of water into the head to flush the bowl either into the holding tank or overboard.

Head Operating Procedure

The marine heads on your Beneteau are installed below the water line, all valves must be closed after use and the selection lever on the head must be returned to the dry bowl position. Failure to do so could result on the bowl overflowing and flooding the boat with water.

1. Read the instructions for use supplied by the head manufacturer and the precautions marked on the pump.
2. Before use, make sure that the water supply thru-hull valve is open and the Y-valve is selected for discharge into the holding tank.

NOTE: BY LAW YOU MUST USE A HOLDING TANK IN ALL US, CANADIAN, AND AMERICAN WATERS.

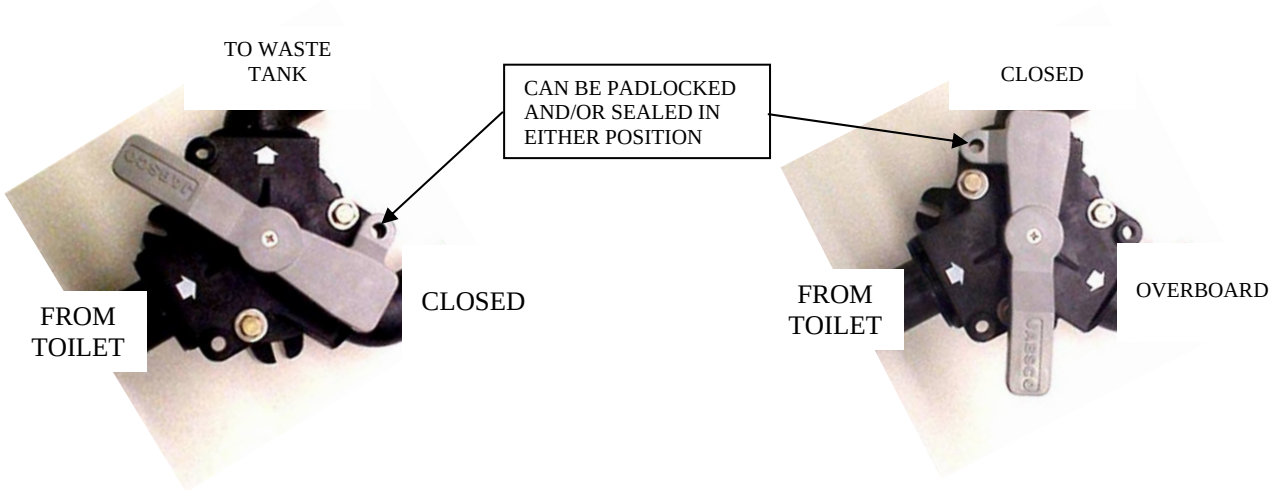
3. Check with local authorities for regional laws governing your area before selecting the overboard discharge option. If you choose overboard discharge option, be sure the discharge thru-hull valve is open before using the head. Select the overboard discharge position on the Y-valve.
4. Select "Flush Bowl" with the selection lever on top of the pump body and pump the handle until the bowl is flushed clean. Return the selection lever to "Dry Bowl" and pump the handle until the bowl is dry. Limiting pump strokes will maximize the use of the holding tank.
5. **CLOSE THE VALVES AFTER USE.**

Holding Tank Pump Out Procedure

The holding tanks are pumped out through deck plates located on the deck. (Unless an additional draining option has been installed; macerator pump, manual pump, gravity drain) Consult your dealer or your marina for the closest pump out facility in your area.
(SEE DECK SECTION FOR LOCATION OF PUMP OUT DECK FITTINGS)

1. Open the deck plate with a winch handle and insert the pump out hose into the deck fill,
2. Follow the pump out stations operating procedure to pump all of the effluent from the tank.
3. Flush the tank by pumping water thru the head into the tank or by inserting a hose into the deck fitting to add fresh water and then pump the tank again.
4. Close the deck fitting.

Operation of three-way valve for toilets



REF	Description
1	MARINE TOILET
2	SEAWATER INLET AND VALVE (SMALL VALVE)
3	WASTE OUTLET AND VALVE (LARGE VALVE)
4	3-WAY VALVE
5	WASTE TANK
6	WASTE TANK DOCKSIDE DRAIN OUTLET
7	WASTE TANK VENT

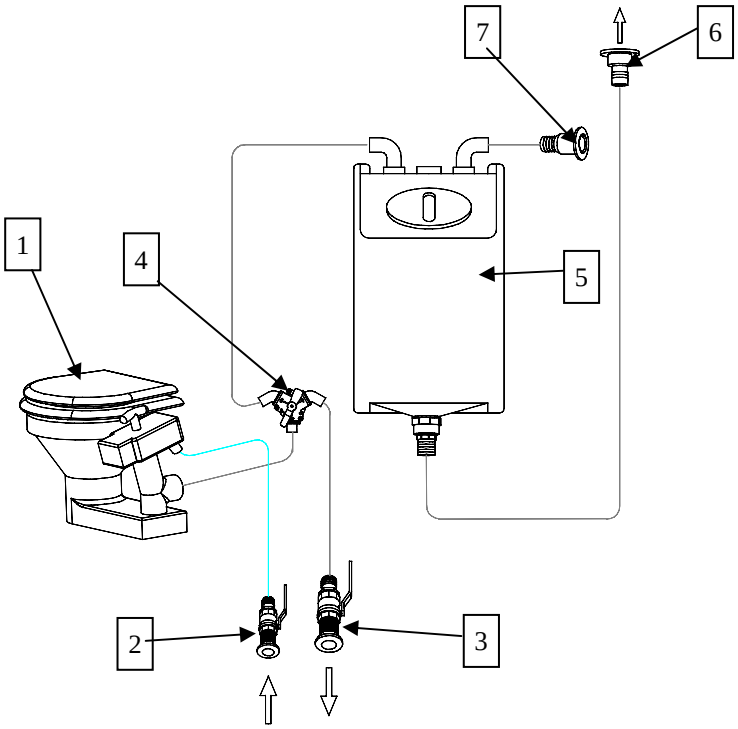
The operating principle for the system is described in the attached schematic diagram.

- After each use, rinse the system: fill the bowl with fresh or sea water then empty.
- Products to use for cleaning should be domestic cleaning products.
- The system should be empty during storage of the ship in negative temperatures.

For the respect of the environment:

- Do not discharge the contents of the holding tanks close to the shore; use the pumping systems of ports or marinas for emptying the holding tanks before leaving port.
- Make sure that the holding tank discharge cock is closed in order to avoid any inadvertent discharging.

It is illegal to discharge sewage into US, Canadian, or American waters



MACERATOR (option)

OPERATION

This macerator waste tank drain system is designed as an independent draining system for the waste tank.

The 12V macerator pump, pumps out the waste tank via a pick-up tube mounted in the waste tank in less than 3 minutes using an intermittent switch and its own thru-hull.

The system has a breaker on the 12V panel to provide power, but the system is operated by a momentary switch in the head.

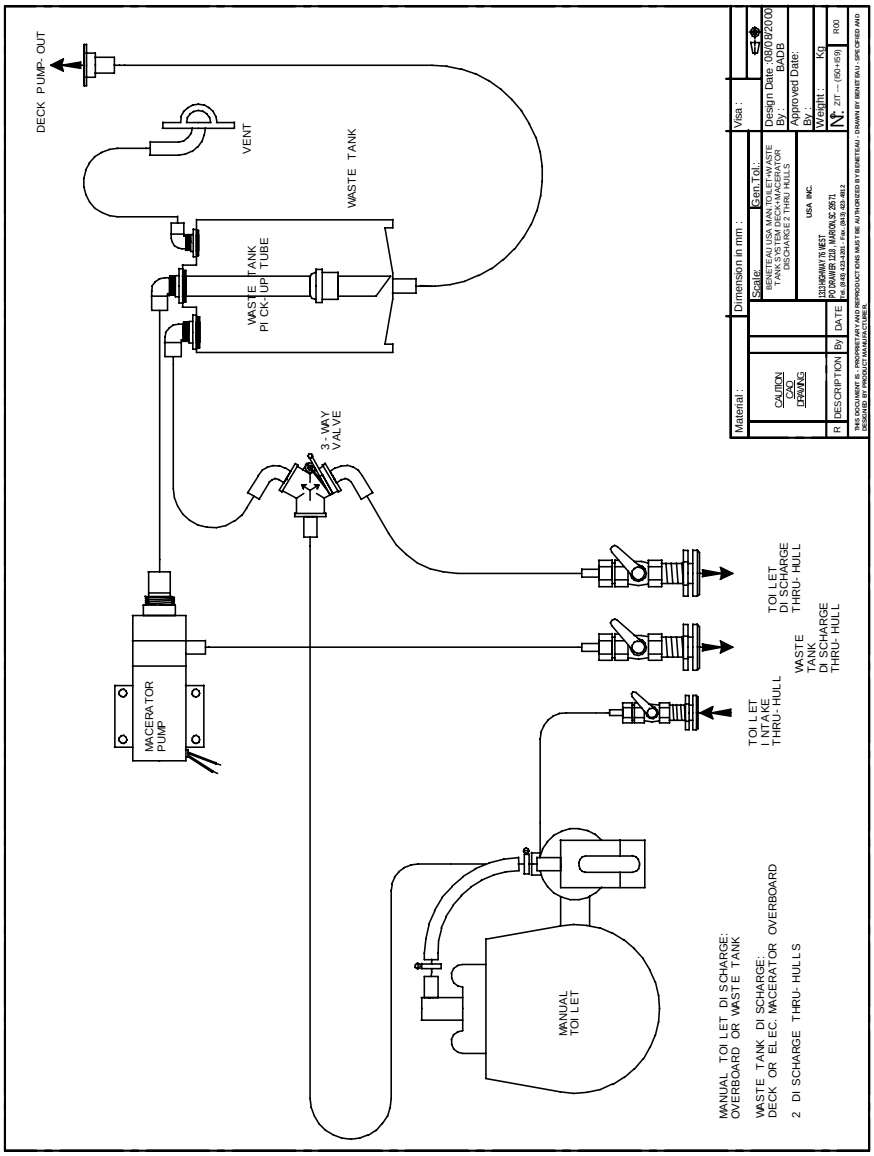
This system can be operated only in an unrestricted discharge area.

The pump must not run dry for longer than 15 seconds as the pump impeller will fail due to excess heat.

NOTE: BY LAW YOU MUST USE A HOLDING TANK IN ALL US, CANADIAN, AND AMERICAN WATERS.

Check with local authorities for regional laws governing your area before electing to discharge waste using this option.

Be sure to open the valve at the thru-hull before use and make sure it is closed after the tank has been drained.



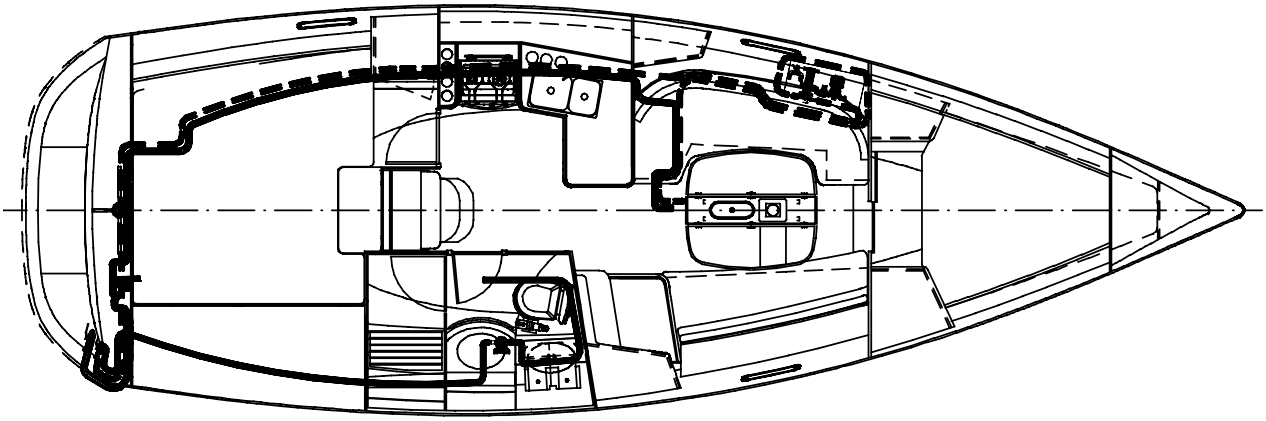
XXI) BILGE PUMP SYSTEM

Operation

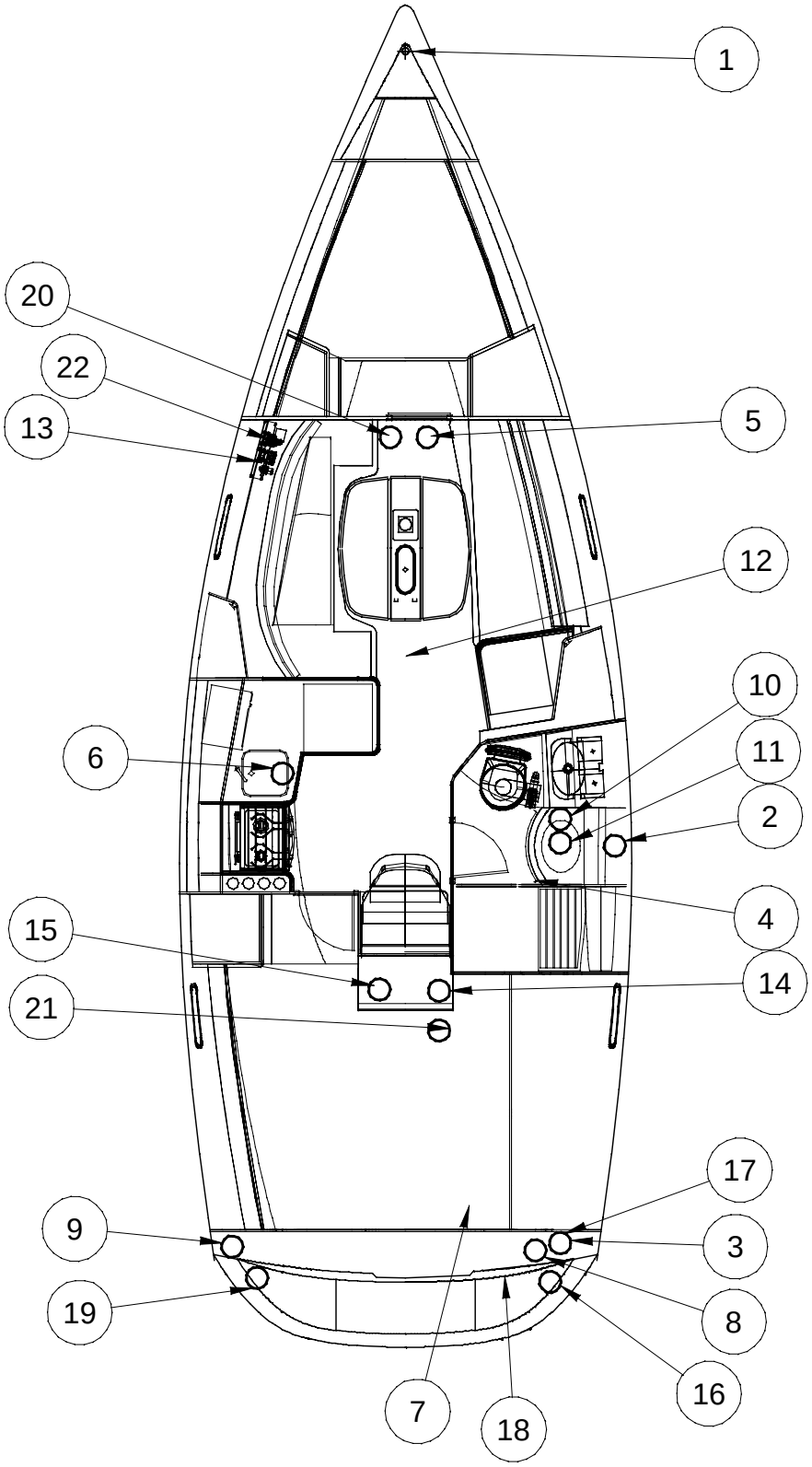
The pump is normally automatic but can be controlled manually from a switch at the electric panel. Be sure to clean the filter between the pump and sump carefully, at regular intervals. To clean the filter, unscrew the body and wash out the filter screen.

Acquaint yourself with the way the bilge pump system of your boat works:

- **Locate the manual bilge pump and the handle.**
- **Locate the switch of the electric bilge pump.**



XXII) SEACOCKS AND THRU-HULLS



REF	Description
1	Anchor locker drain
2	Washbasin drain
3	Shower drain
4	Shower drain pump switch
5	Speed log thru-hull fitting
6	Sink drain
7	Manual bilge pump (in cockpit)
8	Electric bilge pump drain
9	Port locker drain
10	WC inlet
11	WC outlet
12	Electric and manual bilge pump inlet (bilge sump)
13	Electric bilge pump
14	Engine water inlet
15	Stern tube water inlet
16	Engine exhaust
17	Manual bilge pump outlet
18	Cockpit shower
19	LPG locker drain
20	Depth Sounder thru-hull fitting
21	Air conditioner water inlet (option)
22	Fresh water pump

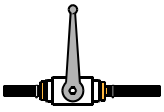
Close all the seacocks when you leave the boat.

- Make sure that all seacocks are closed when not in use, except bilge pumps and LPG locker drains.

  The thru hulls that are below the water line have 1/4-turn valves, which must be opened only during use. The quarter-turn valve is open when the lever is in line with the pipe, and closed when it is at right angles.

  Opening and closing of the seacocks

Open



Closed

Safety - Maintenance

Take special care to see that these valves are well maintained, have a good seal and work smoothly. Have a wooden tapered plug, of correct diameter at hand, so that they can be plugged on the outside if, for instance, a seized valve has to be dismantled, or lubricated.

After hot water has been run through a pipe for the first time, check the tightness of all the clamps.

NOTE: THESE RECOMMENDATIONS ALSO APPLY TO THE COOLING SYSTEM OF THE INBOARD ENGINE

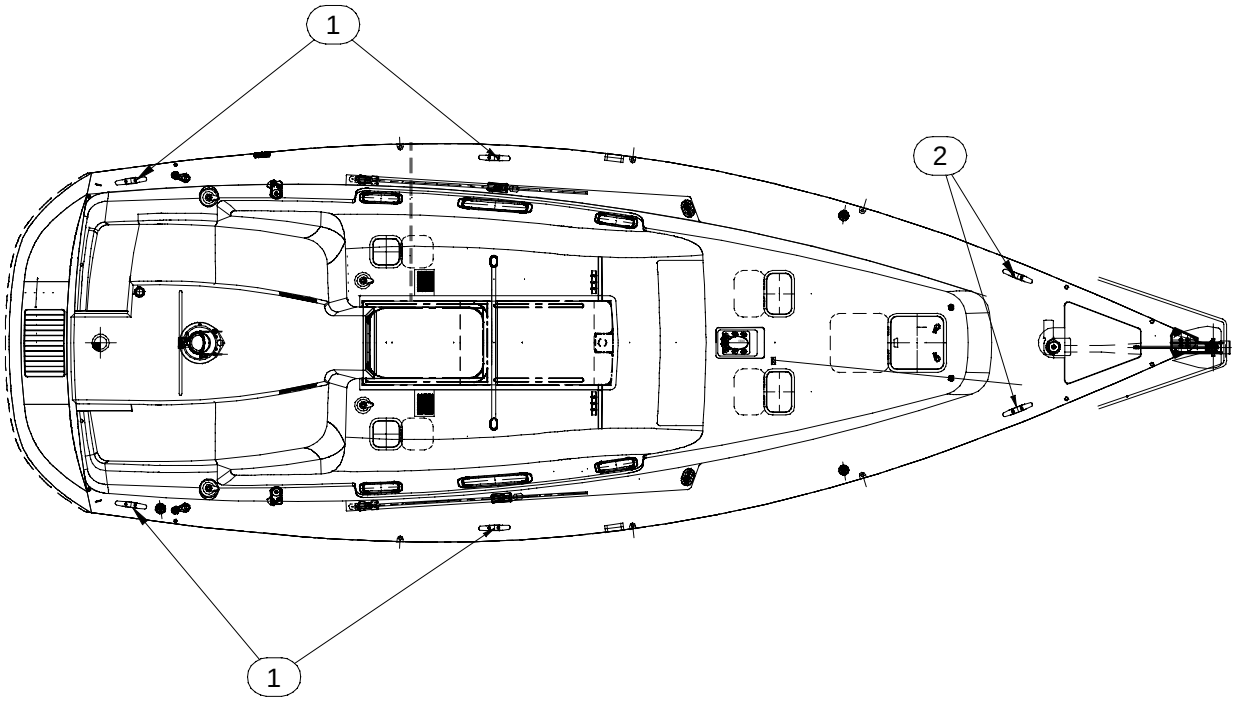
- Warning, while under way the stern tube and engine water inlets must be open. But should be closed when you leave the boat.

The toilet is situated below the waterline; get into the habit of systematically closing the seacocks after each use.

XXIII) MOORING AND ANCHORING

- Keep the chain locker hatch cover closed at sea
- Towing should be done at low speeds
- A tow should be secured in such a way that it can be released under load
- The owner should ensure that dock lines, tow ropes, attachment points and chains correspond to conditions of use of the boat.

REF	Description
1	Mooring cleats
2	Mooring and towing cleats



WINDLASS (OPTION)

OPERATION (if option is installed)

The windlass is used to raise and lower your ground tackle (anchors, chains and rodes), refer to the windlass owners manuals for proper operation. As a general guide please observe the following procedures. Control the speed of the chain running over the gypsy as the anchor is being released.

CAUTION! ALLOWING THE CHAIN TO RELEASE FREELY MAY CAUSE THE CHAIN TO JUMP FROM THE GYPSY DAMAGING THE WINDLASS, THE BOAT OR CAUSE PERSONAL INJURY.

Set the anchor by engaging the engine in reverse briefly. Do not set the anchor by pulling in with the windlass.
Always make the anchor rode fast on a cleat when the anchor is set. Do not rely on the windlass brake to hold the boat.

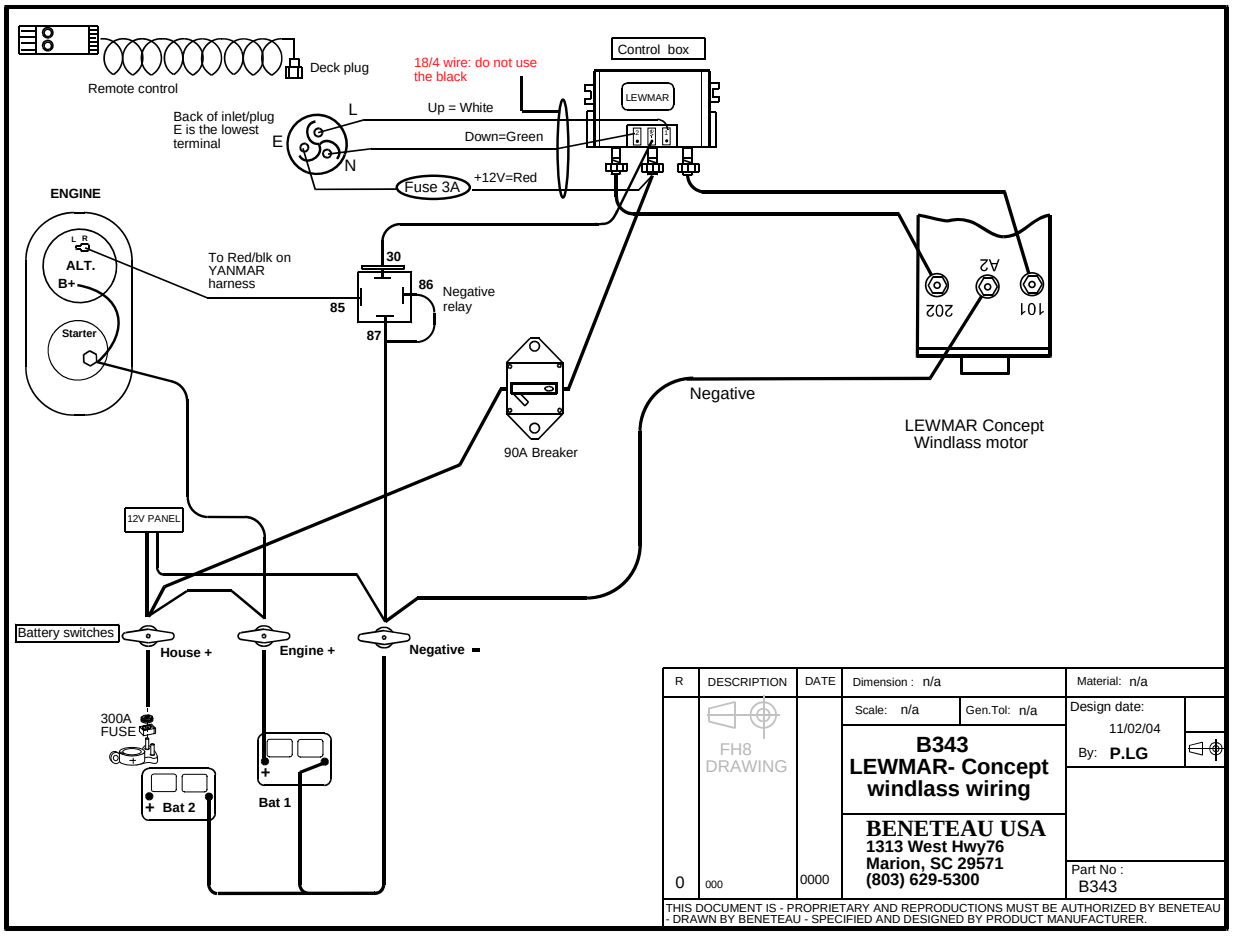
WARNING! THE MOTION OF THE BOAT AT ANCHOR CAN CAUSE LOADS ON THE ANCHOR RODE THAT MAY DAMAGE THE WINDLASS.

Always motor the boat up to the anchor as you take in on the rode.

WARNING! NEVER PULL THE BOAT UP TO THE ANCHOR WITH THE WINDLASS.

WARNING! NEVER BREAK THE ANCHOR OUT USING THE WINDLASS, CLEAT THE RODE OFF AND USE THE ENGINE TO BREAK OUT THE ANCHOR.

LAYOUT



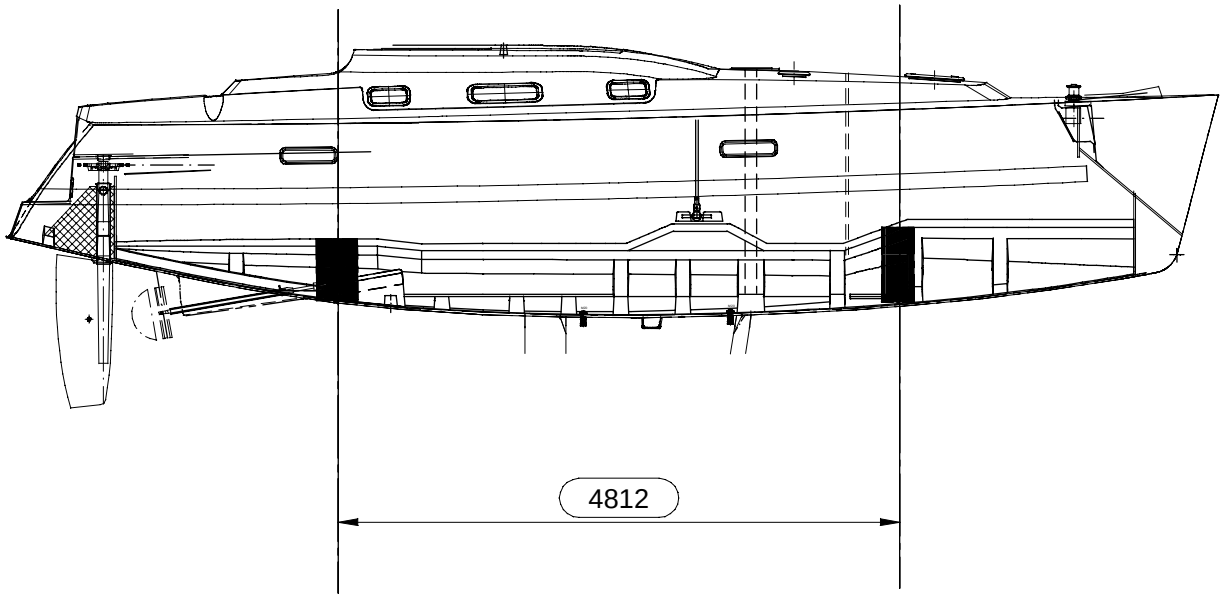
XXIV) HANDLING

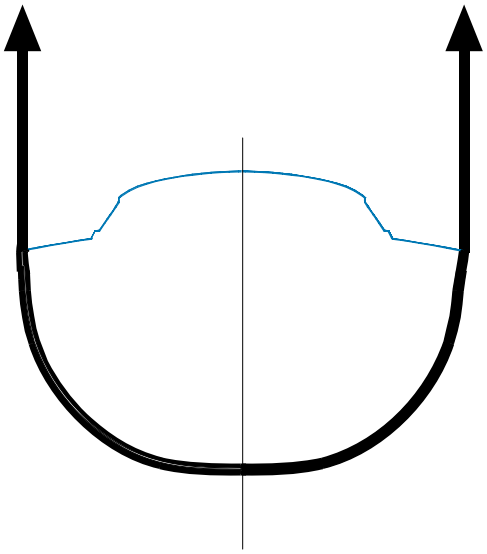
Contact your BENETEAU dealer for maintenance and repair of your boat. The dealer will advise properly, or will supply you with the spare parts you need or the materials that are suited to your boat.

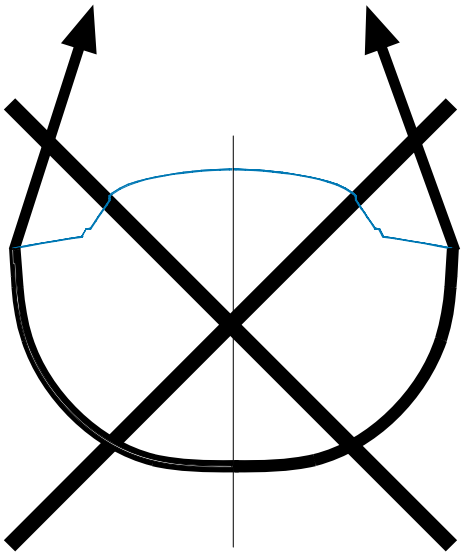
Have your boat hauled & serviced once a year.

POSITION OF LIFTING STRAPS AND CRADLE POSITION.

- Make sure that the boat is stable on its trailer, both longitudinally and laterally.
- Do not forget to tighten the straps or belts.







XXV) MAINTENANCE OF YOUR BOAT

Your boat represents a sizable capital investment that needs special and regular care Safeguarding your investment and looking after your own safety should persuade you of the importance of careful and regular upkeep of your boat. The maintenance suggestions in the following sections will help you with the basics. Always refer to the original manufacturer's manual for specific guidelines on individual components.

NOTE: It is important to clean the bottom of your boat at least two or three times a year.

General Hull Maintenance

- **DO NOT SAND THE HULL WITH COARSE SANDPAPER.**
- **DO NOT USE SOLVENTS TO CLEAN HULL.**
- **DO NOT WASH WITH PRESSURE MACHINE USING WATER WARMER THAN 95 DEGREES F. (35 degrees C.).**
- **DO NOT USE PRESSURE EXCESS OF 2175 PSI (150 BAR.) WHEN USING A HIGH PRESSURE SPRAY WASH.**
- **DO NOT HOLD NOZZLE CLOSER THAN 4 INCHES (10 CM) TO SURFACE OF HULL.**
- **DO NOT MACHINE SAND.**

We believe the above points to be pertinent for all FRP boats.

GEL COAT

The gel-coat is vulnerable to any nicks and scratches it may get during maneuvering in harbor and on a mooring. The best way to avoid them is to undertake maneuvering calmly, after thinking out all the relevant factors (such as speed, current, wind, and the layout of the harbor). Always have one of the crew ready to put out a fender at the right place. When bringing in the anchor chain, back off or swing the boat round so as not to rub the chain against the hull. Hold the anchor well clear as you bring it aboard so that it does not scrape the stem: lay it on deck and lash it down at once, if only temporarily.

Never use dirty fenders.

Hose off the hull and deck as often as possible, with fresh water.
Before hosing down, remember to check that the hatch covers are closed; and it is wise not to take on diesel oil or fresh water supplies while you are hosing off the hull.
After a few years, the gel coat may be re-polished, either with a lambs wool buffer and polish, or by hand using a polish or similar product. Your yard will also be able to supply you with special cleaning products for getting rid of stubborn stains.

To fill in a scratch or small nick, order a **Beneteau Gel coat Repair Kit** with instructions for use, from your dealer or obtain a small quantity of gel coat and catalyst.

Clean the affected area and rub it down with wet-and-dry sandpaper, then dry it off thoroughly (use a hair-dryer if necessary). Mix the components of the gel coat, and fill the scratch using a spatula avoiding any excess; cover with a sheet of cellophane. Once hardened remove cellophane and rub down with very fine wet/dry sandpaper (grade 600 or 800), and finish off by polishing the new surface.

THE DECK AND DECK FITTINGS

Using a gentle liquid detergent, scrub all nonskid areas to keep them free of dirt.

Light-alloy sections (tracks, etc.) can be cleaned in the same manner.

The tiny spots of oxidation pitting that may appear on stainless steel parts are nothing to worry about. Polishing will remove them.

From time to time, lubricate pulley blocks and sheaves, turnbuckles, tracks and travelers with light grease or a water-repellent lubricant such as WD-40 or Triflow.

After a certain time at sea, your winches will need cleaning inside. They must be cleaned out completely once a year. Follow the manufacturer's instructions carefully.

When dismantling deck fittings, have a bowl close at hand for putting the parts in, and circle the area with a rolled dishcloth, or the like, so that any screws or springs you drop do not roll overboard. Use the lubricant recommended by the manufacturer before reassembling.

Warning! Incorrect re-assembly can cause accidents. Note the order in which parts are dismantled, which will make it easier to put them together again later.

Acrylic plastic hatch covers and portholes should be rinsed off with fresh water and rubbed over with a soft cloth soaked in liquid paraffin.

THE RUDDER

Once a year, check steering gear. If necessary renew any parts (bushings, glands, etc.) that are worn. Lubricate the steering chain and cable and or gears.

Never lubricate Nylon, Ertalon or Teflon bushings, with either oil or grease, use only WD-40.

If you have wheel steering, maintenance should be in accordance with the manufacturer's recommendations.

Make regular checks on all the clamps, the condition of the quadrant, the cables or push rods, guide sheaves and the chain in the column to the wheel.

Make regular checks of the steering end stops to ensure they are adequately stopping the rotation of the rudder, this is important for direct drive push rod systems. Over rotation of the rudder could cause a steering lock up.

INTERIOR WOOD

Repairs to interior varnished surfaces are very challenging to accomplish. They should be attempted by skilled professionals.

The internal woodwork used in most of our boats is varnished. This should be regularly rinsed off with fresh water and a little liquid detergent, then polished with a chamois leather.

Should the woodwork become damaged, gently rub it down with very fine sandpaper and touch it with several coats of the varnish. Your dealer should be able to order a Beneteau touch up kit. When this is dry, rub it down with a very fine wet-and-dry sandpaper (grade 800 or 1000) and finish off with polish (or a silicone spray) or wax.

ELECTRICAL SYSTEMS

It is essential for an electrical system to have a battery in sound condition to function properly. The following are some of the things to maintain a battery in the best condition.

- Keep the battery clean and the terminal posts well greased.
- Keep the battery electrolyte checked regularly
- Keep the battery fully charged.

If you have to leave your boat unused for more than a month it is best to leave your batteries with your yard so that they can be kept charged. Keep a suitable charger onboard so you can recharge your batteries at dockside without having to turn on the engine.

If you have an inboard engine, check the condition and tension of the alternator drive belt. From time to time, spray a little WD-40 or something similar on all the connections to the control panel, terminal boxes and lamp sockets. Make sure that cable grommets are watertight; smear them with Vaseline so that they do not dry out and deteriorate.

BATTERY MAINTENANCE

FOR NON-SEALED LEAD-ACID BATTERIES
Make sure that the level of the electrolyte is always at least 1/2" above the top of the plates. This level can change suddenly, due to evaporation in an overheated bilge.

WARNING! THE ELECTROLYTE IN A BATTERY IS A SOLUTION OF SULFURIC ACID. IF ANY SHOULD ENTER THE EYES, RINSE IMMEDIATELY WITH LARGE AMOUNTS OF FRESH WATER, AND SEEK MEDICAL ATTENTION. ELECTROLYTE SPILLED ON SKIN SHOULD BE RINSED WELL WITH FRESH WATER. EVEN SMALL AMOUNTS OF ELECTROLYTE SPILLED ON CLOTHING WILL DESTROY THE CLOTHING.

If the level is low, fill the battery with distilled water and nothing else. The level of acidity (i.e. the relative density of the electrolyte) should also be checked from time to time.

CAUTION! USE ONLY PURE DISTILLED WATER TO REPLENISH ELECTROLYTE LEVELS. THE WATER FROM MANY CITY WATER SUPPLY SYSTEMS IS UNSATISFACTORY FOR BATTERY USE.

Keep battery connections clean and tight. A cup full of strong baking soda solution and a toothbrush will clean corrosion from the terminals and neutralize any spilled acid (do not allow any of the solution to enter the battery cells). A coating of petroleum jelly or silicone grease on the battery terminals will inhibit corrosion.

WATER SYSTEM

Check all joints regularly for leaks. Keep the tank(s) filled. If, however, you have to leave the boat unattended for several months, disconnect the water lines, purge them, and rinse them thoroughly with vinegar and water so that they do not form foul-smelling deposits.

Important: If the electric pump continues running when all the taps are closed, switch off the power supply at once and check the water system to find and overcome the leak that is causing this.

Check the thru-hulls, seacocks, connectors and hose clamps regularly. Make sure the seacocks turn freely.

MARINE HEAD

Maintenance consists of regularly pumping the system out with fresh water and leaving the holding tank empty whenever possible.

Check the thru-hulls, seacocks, connectors and hose clamps regularly. Make sure the seacocks turn freely.

ENGINE

Whether maintenance of the power system is to be performed by the owner or delegated to a mechanic, it is the owner who must first initiate any action that is to take place. He must either perform the maintenance or decide to call someone to do the job. A working knowledge of the power system is essential in the first case, and preventive maintenance desirable in the second. The engine manual is, of course, the prime source for engine information and should be consulted, preferably before the fact. The following paragraphs are included as a supplement to cover any required maintenance procedures that are not a part of the engine manual.

We have already stressed the points that are of importance for an engine to keep working properly. It might be added that the engine compartment should be kept scrupulously clean; check for any unusual oil or fuel leaks. Inspect all the electrical connections frequently.

Drain the bowl of the fuel/water separator at regular intervals to lessen the chance of water damage to your engine's fuel system. Keep fuel tanks filled.

Inspect the engine mounts and coupling for loose bolts regularly.

Check the oil and coolant levels every time the boat is used.

Check the alternator belt for the correct tension, keep a spare belt on hand.

Check all hoses and fuel lines for leaks regularly.

NOTE: Always have a spare set of sacrificial anodes on board, and regularly check those that are already fitted for deterioration; they should be replaced when their size has been reduced by half. The time this takes will vary with the waters in which the boat is used. Water temperature, salinity, the presence of neighboring boats, the nature of the bottom and the materials in the dock will all affect the life of your boat's anodes.

Order your spare anodes thru your dealer or from Beneteau Customer Service.

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

SAILS

Check the sails regularly, as the slightest wear in the stitching or at a reinforced part can very quickly have dramatic consequences. Keep a small sail repair kit on board and a book showing how to carry out minor work yourself until you can get the job done by a professional sail maker.

Keep a special eye on points where the sails can chafe on the rigging or fittings - turnbuckles, lifelines, shrouds, spreaders, etc.

Salt water and sunshine take their toll on sails. Whenever possible, rinse the sails in fresh water and leave them stretched out (preferably on a lawn) to dry. Never dry a sail by hoisting it and letting it flog in the wind; this will very quickly cause the sail to deteriorate. Never fold and store a damp sail.

XXVI) WINTERIZING PROCEDURES

The end of the season is a good time for a complete inspection of all of the boat's systems. It is easy to take shortcuts when decommissioning your boat but proper lay-up procedures will ensure trouble free recommissioning in the spring.

The following sections are oriented towards hauling your boat for winter storage in a cold climate, but they are also a good guideline as a lay-up procedure for your Beneteau in any climate.

An improperly winterized boat will lead to costly repairs and extensive delays, we recommend winterization by a competent yard or your Beneteau Dealer. The owner must ensure that the boat is correctly winterized.

HAULING

Your Beneteau should be hauled for inspection and maintenance at least once a year; the frequency of haul-outs may vary due to your local conditions and marine growth. A good boatyard is seasoned in hauling and maneuvering boats on land, you may verify this by checking to see that the weight of the hull is resting firmly on the bottom of the keel and that even contact exists along the bottom of keel. Jack stands, or cradle uprights, are meant to balance the boat and not to support its weight.

BOTTOM

Clean the yacht's bottom of any growth as soon as the boat is hauled. It is generally preferred to wait until spring to paint the bottom. Use the following guidelines when using a pressure washer:

MAXIMUM WATER TEMPERATURE TO BE 95° F. (35° C.)

MAXIMUM PRESSURE TO BE 2175 PSI (150 BARS) AT NO CLOSER THAN 4"

CUTLASS BEARING

The shaft strut contains a rubber type cutlass bearing. At haul out, be sure the bearing slots are clear and apply silicone lubricant or castor oil to the bearing to preserve its suppleness. Replace the cutlass bearing if excessive wear is evident. Be sure to realign the engine if the bearing is replaced. Bleed the prop shaft seal after re-launching

ZINC

Replace the sacrificial zinc before re-launching the boat.

FRESHWATER SYSTEM

This system is best winterized with one of the non-toxic antifreezes available for use in boat and recreational freshwater systems. It is an easy method, which replaces fresh water with a non-toxic antifreeze mixture.

Caution! Be sure to use non-toxic antifreeze in the fresh water system.

1. Allow the water in the water heater to cool, and open the pressure release valve on top. Disconnect the hot and cold water hoses and allow the tank to drain either in a bucket or into the bilge. Connect and clamp the hot and cold water hoses together using a short length of 1/2" pipe in order to bypass the heater.

2. Mix the appropriate amounts of antifreeze and water, as directed on the label, to deliver the degree of protection desired. Put 1-1/2 to 2 gallons of the solution into each water tank.

3. Open both tank selector valves on the manifold.

4. Turn on the pump and open all fixtures until antifreeze runs through. Be sure to open the hot water selector valve in order to supply antifreeze to the hot water hoses and through the bypass loop.

5. At this point, the freshwater system should be completely protected by antifreeze against freezing to a degree indicated by the strength of the solution placed into the supply tanks.

6. New boats delivered have their freshwater systems filled with antifreeze as described above, and are protected to -30 degrees F.

HEAD

Several days before completing haul-out procedures, fresh water should be allowed to stand in the head unit to dissolve any salt accumulation in the hoses and pump. Remove all water from the head. Special lubricants for the pump's internal mechanism are available. Check with your marine hardware dealer for a recommended brand. Never put oil, gas, kerosene, or alcohol in the head or they will ruin the internal valve.

Completely pump out all waste from the holding tank and pour in a cleansing, deodorizing solution. If possible, allow this to sit in the tank overnight, then completely pump out and drain the entire system. If antifreeze is used in the system, check in the manufacturer's literature for the recommended type.

ENGINE

Winterization by a marine mechanic is highly recommended to ensure that your engine is properly protected. Consult the Engine Owner's Manual for your specific engine's guidelines for winterizing. Follow the instructions carefully to ensure the engine is adequately protected. The general procedure is to replace raw seawater with an antifreeze solution mixed to protect the engine in your local area and to check the heat exchanger side to ensure that it contains an adequate antifreeze solution as well.

1. Prior to hauling the boat, run the engine to achieve normal operating temperatures in order to open the thermostat.

2. Close the raw water intake thru hull and remove the hose from the valve hose barb.

3. Insert the intake hose in a bucket of antifreeze solution and run the engine briefly until all raw water is flushed thru the exhaust system and only the antifreeze solution is expelled from the exhaust.

4. Be sure the thru hull valve is opened after the boat is hauled.

FUEL SYSTEM

Consult your engine manual to clean any engine mounted fuel filters.

Drain any water from the bottom of the fuel/water separator.

The fuel tank should be kept full for winter storage with about 5% expansion room left at the top. Empty fuel tanks encourage the formation of condensation.

BATTERIES

Clean battery terminals and cable ends thoroughly of any corrosion with a baking soda and water solution, and apply a light protective layer of petroleum jelly.

Batteries should be fully charged before storage, and the fluid level maintained. Store batteries in a warm, dry place. Do not store batteries directly on a stone or cement floor.

SEACOCKS

Open and drain all seacocks after boat is hauled. Open all seacocks for winter storage.

BILGE

Completely pump out bilge of any water and clean out any debris present. Bilge pumps should be pumped dry and hoses disconnected, to ensure that no water is left in the system.

ICEBOX

Remove any remaining food from the icebox and wash down thoroughly with warm water and detergent solution.

Odors can be removed with a baking soda and water solution, and an open box of baking soda left in the icebox will continue to remove odors throughout storage.

Completely pump out any water from the bottom of the icebox and make sure pump is completely dry of any water.

Leave icebox lid open during storage to allow ventilation.

STOVE

Depressurize the gas system and close all valves. Clean stove thoroughly. Remove fuel tanks and clean to remove any salt accumulation from their surface. Wipe down stove and tanks with a rag while applying a light layer of WD-40 or other lightweight, protective oil.

INTERIOR

Remove as much loose gear from the boat as possible and store in a clean dry place. If cushions are left on board be sure they are dry and propped on edge to encourage ventilation.

Rinse and dry all floorboards and store them on their edge to encourage ventilation. Leave all lockers clean and open for ventilation.

COVERING THE BOAT

Cover the boat adequately during storage to prevent excessive weathering.

BE SURE THE COVER DOES NOT CHAFE BOAT.

Ventilation between the winter cover and the boat is required to avoid build up of humidity.

CAUTION! DO NOT USE BLACK POLYETHYLENE AND DO NOT SHRINK-WRAP THE BOAT BY TAPING TO THE HULL. ALWAYS ASSURE GOOD VENTILATION.

SAILS

Remove the sails, clean following the sail makers recommendations and store in a clean dry space.

MAST

The aluminum mast requires a minimum of care and maintenance. At the end of each season it should be washed with a mild detergent and water solution, followed by a complete rinsing with fresh water. Tie off all halyards and lifts, and inspect the mast completely for scratches, cracks or stress marks. Apply paint or a clear lacquer to any scratches found to prevent corrosion. Consult your dealer or a marine rigger if any cracking or stressing of the aluminum tube is found.

Check all hardware on mast carefully for signs of corrosion, and check the tightness of the fastenings. Masthead sheaves should show no signs of wear and should move freely. Lubricate if necessary.

XXVII) ENVIRONMENT

Do not pour oil overboard; use appropriate waste containers.

When you fill up the engine fuel tank, take all the precautions in order to avoid overflowing.

In the harbor, do not use the heads if they are not equipped with holding tanks.

The use of detergent contributes to the deterioration of the sea fauna and flora; choose entirely biodegradable products for your cleaning operations.

Do not throw plastic bags overboard.

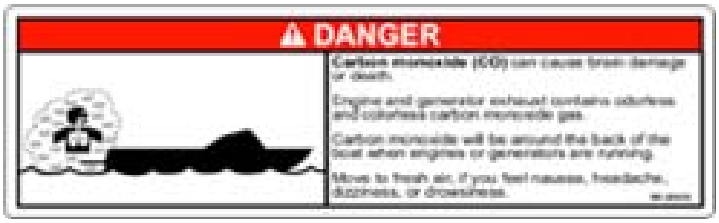
You love the sea, just as we do. Help us to protect it and do not pollute it.

XXVIII) CALIFORNIA CARBON MONOXIDE AND PROPOSITION 65 WARNINGS

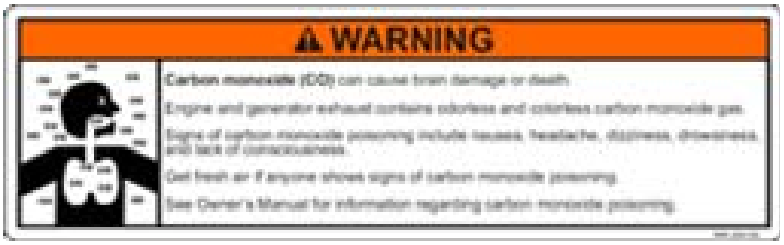
CALIFORNIA

Proposition 65 Warning

A wide variety of components used on this vessel contain or emit chemicals known to the State of California to cause cancer and birth defects and other reproductive harm.



- **CO TRANSOM LABEL**- This label is required on all boats sold in the State of California in accordance with AB2222. It reads "Carbon monoxide (CO) can cause brain damage or death. Engine and generator exhaust contains odorless and colorless carbon monoxide gas. Carbon monoxide will be around the back of the boat when engines or generators are running. Move to fresh air if you feel nausea, headache, dizziness, or drowsiness."



- **CO HELM LABEL** This label is required on all boats sold in the State of California in accordance with AB2222. Reads "Carbon monoxide (CO) can cause brain damage or death. Engine and generator exhaust contains odorless and colorless carbon monoxide gas. Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness. Get fresh air if anyone shows signs of carbon monoxide poisoning. See Owner's Manual for information regarding carbon monoxide poisoning."

Carbon Monoxide (CO)
Carbon monoxide (CO) is an odorless, colorless, extremely toxic gas. Prolonged exposure can cause serious injury or death.
It is produced any time a carbon based fuel burns – such as gasoline, diesel, propane, charcoal or oil. Sources on your boat include engines, generators and cooking ranges.

Common causes of carbon monoxide (CO) poisoning
- Exhaust fumes from engines and/or generators and/or other fueled devices on your own boat and/or neighboring boats.
- Enclosed cabins or cockpits may accumulate carbon monoxide (CO).
- The following conditions require special attention:
  - Operating at slow speed or dead in the water.
  - Operating engine and/or generator and/or other fueled devices in confined spaces. Be aware of possible carbon monoxide from nearby boats in a confined docking area.
  - Blocking hull exhausts.
  - Using canvas curtains.
  - Winds blowing exhaust toward boat occupants.
  - A leaking exhaust can allow carbon monoxide to migrate throughout the boat and into enclosed areas.
  - Swimming in the area near the engine and/or generator exhausts.

To reduce accumulation of carbon monoxide (CO)
- Increase air movement by opening portlights and hatches (especially the forward facing hatches) and/or adjusting canvas.
- Ensure continuous movement of fresh air around occupants.
- Operate engine and/or generator only in well ventilated area.
- Schedule regular engine and exhaust system maintenance inspections by experienced and trained technicians.

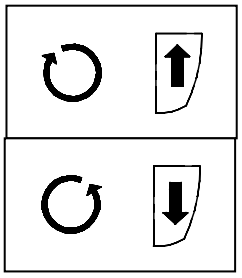
Symptoms of carbon monoxide (CO) poisoning
- Irritated eyes
- Dizziness
- Ears ringing
- Headaches
- Nausea
- Unconsciousness
- Often a victim's skin turns cherry red

Do not confuse carbon monoxide poisoning with seasickness or intoxication. If someone on board complains of the above symptoms, immediately move the person to fresh air, investigate the cause and take corrective action.

What to do in case of carbon monoxide (CO) poisoning
- Have the victim breathe fresh air deeply.
- If breathing stops, resuscitate. A victim often revives, then relapses because organs are damaged by lack of oxygen.
- Seek immediate medical attention.

XXIX) LIFTING KEEL OPERATION

Operation:



To raise the keel, turn the mechanism clockwise.

To lower the keel, turn the mechanism anticlockwise.

Approximately 99 rotations are necessary for going from one extreme to the other of the keel.

Advise on use:

- **When sailing with the keel down, lower the keel completely then raise it again one turn so that the system is always under tension.**
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- **When scrubbing your boat's bottom, don't forget to grease, at least twice per year, the worm screw of the keel raising system.**
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- **If your boat has a system for retaining the keel in the low position in case of capsizing, it should always be in place**

NB : For optimum functionality of the keel system, it is recommended to raise the keel after each use.

CENTERBOARD DOWN

CENTERBOARD UP

With the centerboard version it is possible for the boat to rest on the centerboard trunk and be balanced by the twin rudders when grounded during low tide (providing that it is sitting on a firm & stable bottom). Or when hauled out, the boat can be stored in this manner with a minimum of added support.