

CE

### **OWNER'S MANUAL**

### **BENETEAU 423**

# HULL IDENTIFICATION NUMBER: US-BEY \_ \_ \_ \_ \_ \_ \_

OWNER'S MANUAL BENETEAU PART #: 112284

#### SUMMARY:

I)	INTRODUCTION	3
Í)	ANTI-FOULING	4
III)	WARRANTY	5
IV)	HULL IDENTIFICATION NUMBERS	7
V)	DEALER'S RESPONSIBILITIES	7
VI)	OWNER'S/OPERATOR'S RESPONSIBILITIES	8
VII)	SAFE OPERATION AND WARNING LABELS	12
VIII)	FEDERAL REGULATIONS	17
IX)	COMMISSIONING	20
X)	SPECIFICATIONS OF THE BOAT	
XI)	INTERIOR LAYOUT	26
XII)	DECK	28
XIII)	SAILS AND RIGGING	29
XIV)	FRESH WATER SYSTEM	43
XV)	BILGE PUMP SYSTEM	46
XVI)	SEACOCKS AND THRU-HULLS	
XVII)	ELECTRIC SYSTEMS	50
XVIII)	LP GAS SYSTEM	60
XIX)	STEERING SYSTEM	62
XX)	ENGINE	63
XXI)	HANDLING	64
XXII)	MAINTENANCE	65
XXIII)	WINTERIZING PROCEDURES	
XXIV)	ENVIRONMENT	76

#### EXPLANATION OF THE TYPOGRAPHY USED:

DANGER

#### WARNING

TAKE CARE

<u>RECEIPT</u>	
OWNER'S NAME	
ADDRESS	
	Zip:
	J 423 number cepted 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. <u>The safety and security of your boat and its passengers are solely the responsibility of the owner</u> <u>and/or the operator of the boat</u>. 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

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
OWNER'S NAME	:
ADDRESS	:
	Zip:
Does certify that I have	AU 423 number taken delivery and read the information in the owner's manual delivered with the boat.
<i>c</i> ,	Owners Signature

Please return this portion to BENETEAU USA, After Sales Dept, 1313 W Hwy 76, Marion, SC USA

### 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. <u>The safety and security of your boat and its passengers are solely the responsibility of the owner</u> <u>and/or the operator of the boat</u>. 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.

#### 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. 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 number with any correspondence.

Beneteau Customer Service	Beneteau USA Inc.	
(Customer Service Dept.)	(Sales & Marketing)	
1313 Highway 76 West	24 North Market Street, Suite 201	
P.O. Drawer 1218	Charleston, SC 29401	
Marion, SC 29571	Tel (843)-805-5000	
Tel (843)-423-6459	Fax (843)-805-5010	
Fax (843)-423-5516		

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.



#### 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)
- 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.

#### 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 to 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 parts or accessories installed during the process of manufacturing that were not supplied by Beneteau USA or Chantiers Beneteau, S.A. S.A., for which the Warranty will be the one provided by the supplier of the part or manufactured by Beneteau USA or Chantiers Beneteau accessory; (4) damages resulting from any modification made to the boat; (5) boats for reltal, 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; (a) 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 maintenance, including, but not limited to, periodic re-bedding of chain plates, use conditions, or wear and tear; (9) reasonable and necessary stanchion bases, windows and/or window frames, (10) damages or deterioration due to the non-observance of maintenance winches, and 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 dependent of 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 OSA, 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	

III)

#### 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 recipt 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 (843) 805-5000.

#### 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. 24 North Market Street Suite 201 Charleston, SC 29401

#### 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 3 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 28 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 yacht's documentation, and additional copies may be obtained by calling the U.S. Coast Guard Boating Info line at (800) 368-5647.

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.

#### 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

A basic kit should consist of:

- Wrenches adjustable, Metric and SAE open end, box, 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:

- <u>Standing and Running Rigging:</u> 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.
- <u>Electrical:</u> Electrical tape, wire, crimps on lugs, spare navigation light bulbs.
- Lubricating supplies: WD-40 and silicone grease.
- <u>Engine</u>: Check engine manual for spare parts, engine oil and transmission fluid recommendations.
- <u>Sails:</u> 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.

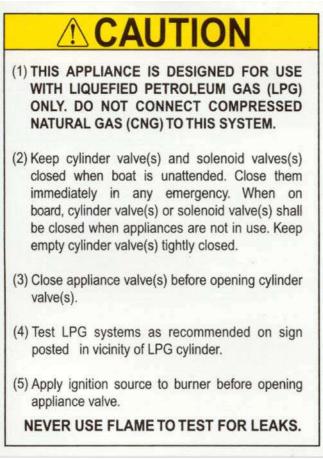
Beneteau Part #111359



#### **PROPANE LABELS**

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

Beneteau Part #111353

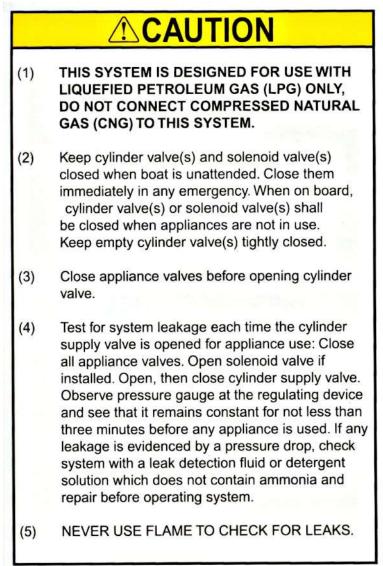


Beneteau Part #111357

## **WARNING**

OPEN FLAME COOKING APPLIANCES CONSUME OXYGEN THIS CAN CAUSE ASPHYXIATION OR DEATH MAINTAIN OPEN VENTILATION DO NOT USE THIS APPLIANCE FOR COMFORT HEATING • In the propane locker affixed under the propane locker lid

Beneteau Part #015903



• On or next to the LP Gas Line



#### SWIM LADDER WARNING LABEL

• Located on the transom

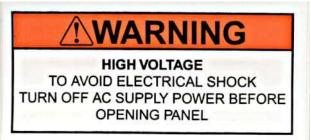
Beneteau Part # 111354



#### HIGH VOLTAGE WARNING LABEL

• Located beside the 110v electric panel.

Beneteau Part #111365



#### TRANSOM DOOR WARNING LABEL

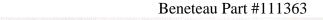
• Located on or next to the helmsman's seat. (Not applicable on all models)

Beneteau Part #111362

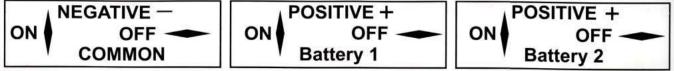


#### STANDARD BATTERY SWITCH LABEL

• Located at the standard battery switches.



IMPORTANT: WAIT FOR ENGINE TO COME TO A FULL STOP BEFORE TURNING BATTERIES OFF



#### **OPTIONAL BATTERY SWITCH LABEL**

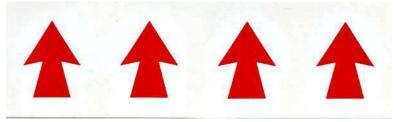
• Located at the optional battery switches

Beneteau Part #111300 (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



#### VIII) FEDERAL/STATE REGULATIONS

#### **DISCHARGE OF OIL**

• Located: under the sail locker lid.

Beneteau Part #111352

# **DISCHARGE OF OIL PROHIBITED**

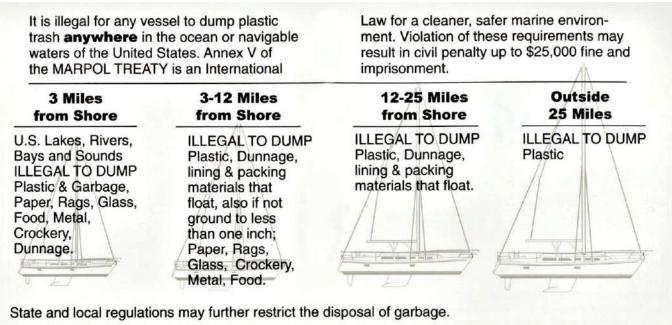
The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States or waters of the contiguous zone if such discharge causes a film or sheen upon, or discoloration of, the surface of the water, or causes a sludge or emulsion beneath the surface of the water. Violators are subject to a penalty of \$5,000.

BENETEAU

#### 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. (NOTE: Beneteau ships batteries dry)
- \_\_\_\_\_ 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

#### 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 sheets 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

Туре	<b>BENETEAU 423</b>
Name of Builder	BENETEAU USA INC.
Design Category	А
No. of acknowledged body	CE 0607

Length Over All		13.15 m	43.14 ft
Hull Length		12.64 m	41.47 ft
Length Waterline		11.75 m	38.55 ft
Hull Beam		3.94 m	12.93 ft
Draft:	Shoal	1.45 m	4.76 ft
	Medium	1.70 m	5.58 ft
	Deep	2.10m	6.89 ft
Clearance Height		16.57 m	54.36 ft

Maximum Authorized Engine Power : 60 kW 80 hp

Fuel Capacity	200 L (52.8 US gal)	
Fresh Water Capacity	581 L (153.5 US gal)	
Battery Capacity	100A engine	200A house - qty 2

#### DESIGN CATEGORIES

- Category A: OCEAN Designed for extended voyages where conditions may exceed wind force 8 (Beaufort scale) and significant wave heights of 4 m and above, and vessels largely self sufficient
- Category B: OFFSHORE Designed for offshore voyages where conditions up to, and including, wind force 8 and significant wave heights up to, and including, 4 m may be experienced.
- Category C: INSHORE Designed for voyages in coastal waters, large bays, estuaries, lakes and rivers where conditions up to, and including, wind force 6 and significant wave heights up to, and including, 2 m may be experienced.
- Category D: SHELTERED WATERS Designed for voyages on small lakes, rivers, and canals where conditions up to, and including, wind force 4 and significant wave heights up to, and including, 0.5 m may be experienced.

Category	Height of the Waves	Wind Force
	(ft)	(Beaufort)
А	>4 m (13.0 ft)	> 8
В	< 4 m (13.0 ft)	<u>&lt;</u> 8
С	< 2 m (6.5 ft)	<u>&lt;</u> 6
D	< .5 m (1.6 ft)	<u>&lt;</u> 4

For additional information concerning the standard equipment, please refer to the manuals enclosed with the boat.

Maximum recommended number of persons on board by design category:

Category	Maximum Number of Persons
А	10
В	11
С	12
D	12

The C.E. Certified equipment includes: The fuel tanks, parts of the steering system, parts of the gas system and the hatches and portholes.

#### **WEIGHT ESTIMATION**

SAILING CATEGORIES	Α	В	С	D
	Kg (lbs)	Kg (lbs)	Kg (lbs)	Kg (lbs)
Light Displacement :	8845 (19,500)	8845 (19,500)	8845 (19,500)	8845 (19,500
Includes:				
Light Boat + Safety Equipment + Sails				
Life Raft :	75 (165)	75 (165)	75 (165)	75 (165)
Crew :	750 (1,653)	900 (1,944)	900 (1,944)	900 (1,944)
Water :	550 (1,213)	550 (1,213)	550 (1,213)	550 (1,213)
Fuel :	160 (353)	160 (353)	160 (353)	160 (353)
Personal Equipment :	220 (485)	220 (485)	220 (485)	220 (485)
Optional Equipment				
Holding Tank :	200 (441)	200 (441)	200 (441)	200 (441)
Air Conditioning :	80 (176)	80 (176)	80 (176)	80 (176)
Teak Deck	140 (309)	140 (309)	140 (309)	140 (309)
Extra Battery :	35 (77)	35 (77)	35 (77)	35 (77)
Auto Pilot Gear :	25 (55)	25 (55)	25 (55)	25 (55)
Mech. Refrigeration	25 (55)	25 (55)	25 (55)	25 (55)
Bow Thruster	40 (88)	40 (88)	40 (88)	40 (88)
Spinnaker Pole :	10 (22)	10 (22)	10 (22)	10 (22)
Microwave Oven :	15 (33)	15 (33)	15 (33)	15 (33)
Roof Sprayhood / Bimini :	35 (77)	35 (77)	35 (77)	35 (77)
Davits :	40 (88)	40 (88)	40 (88)	40 (88)
SUB TOTAL (Optional Equipment)	645 (1,422)	645 (1,422)	645 (1,422)	645 (1,422)
Margin for Other Equipment	360 (793)	360 (793)	360 (793)	360 (793)

MAXIMUM LOAD

2760 (6,084)

2760 (6,084)

2760 (6,084)

Kg (Lbs.)

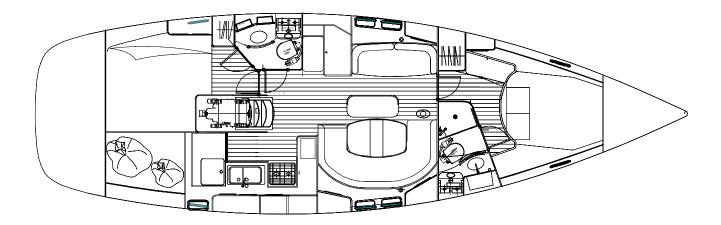
#### MAXIMUM LOAD = MAXIMUM LOAD DISPLACEMENT - LIGHT BOAT

2760 (6,084)

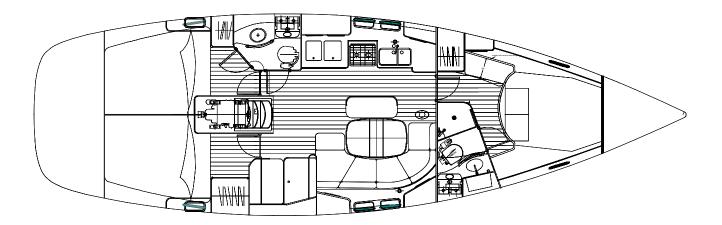
#### ANY OVERLOADING CARRIES A RISK OF FLOODING OR LOSS OF STABILITY

#### XI) INTERIOR LAYOUT

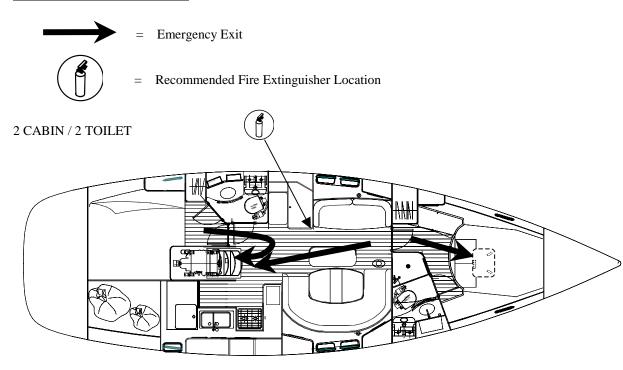
2 CABIN / 2 TOILET



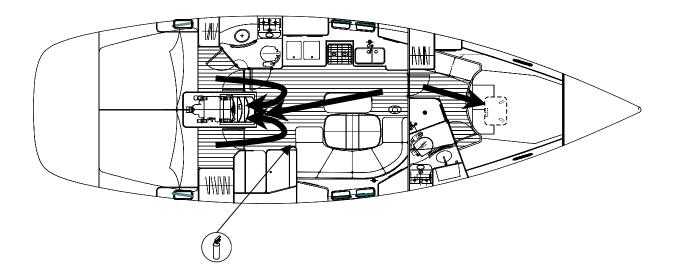
3 CABIN / 2 TOILET



#### **EXIT IN CASE OF FIRE**



3 CABIN / 2 TOILET



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

The Beneteau 423 is fitted with a foldaway swimming ladder. The swimming ladder should be in its folded/upright position as soon as you are on board.

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

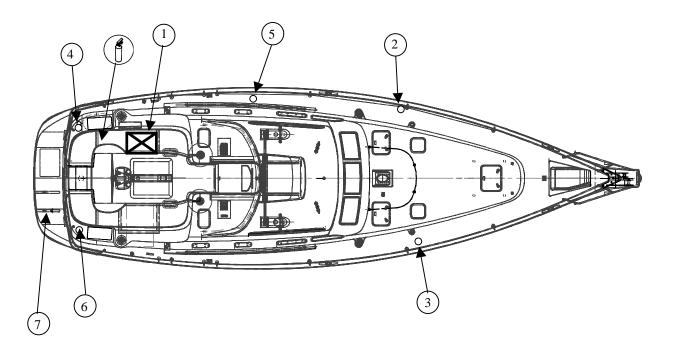
In case of rough sea, close the boat with the sliding hatch and weatherboards so that no water may come into the boat.

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

- 1 Recommended location of the life-raft
- 2 Fwd water tank deck fill
- **3** Fwd waste tank pump out deck plate
- 4 Aft water tank deck fill
- 5 Aft waste tank pump out deck plate
- 6 Fuel deck fill
- 7 Swim ladder

ĥ

Recommended Fire Extinguisher Location



#### XIII) SAILS AND RIGGING

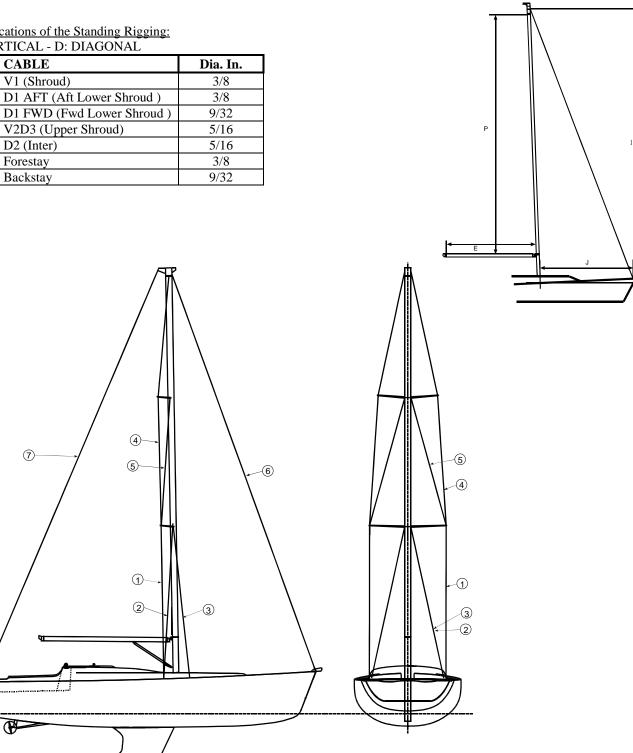
Specifications of the Sails:

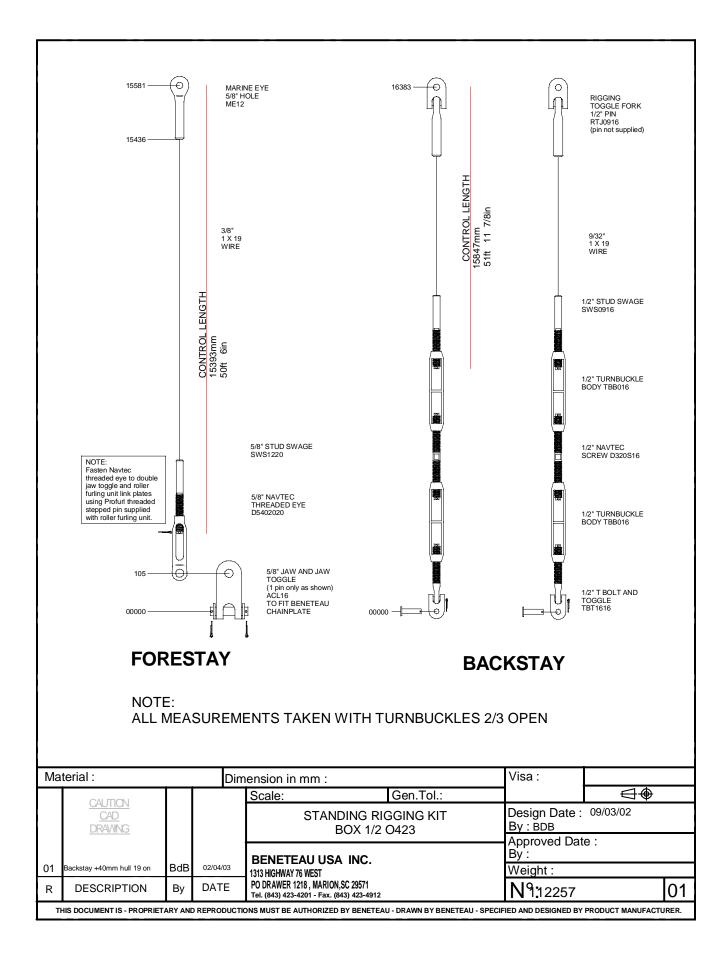
SAIL	AREA		
	Roller furling main	Classic main	
Total	81.5 m <sup>2</sup>	86.0 m <sup>2</sup>	
Mainsail	29.6 m <sup>2</sup>	$34.1 \text{ m}^2$	
Genoa (140%)	51.9 m <sup>2</sup>	51.9 m <sup>2</sup>	

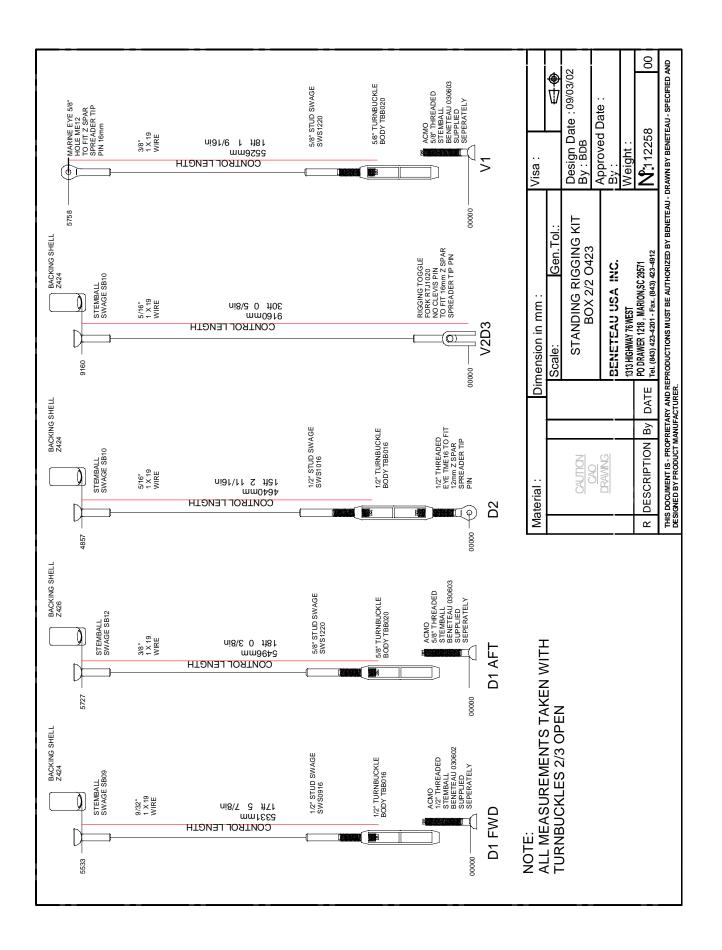
Specifications of the Standing Rigging:	
V: VERTICAL - D: DIAGONAL	

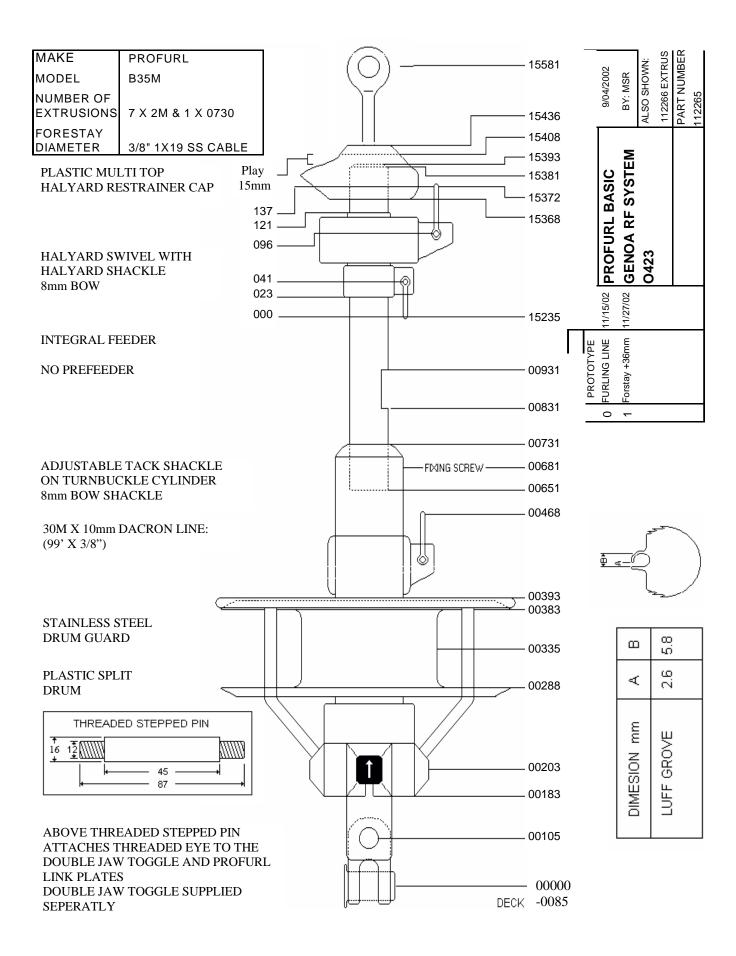
REF	CABLE	Dia. In.
1	V1 (Shroud)	3/8
2	D1 AFT (Aft Lower Shroud )	3/8
3	D1 FWD (Fwd Lower Shroud )	9/32
4	V2D3 (Upper Shroud)	5/16
5	D2 (Inter)	5/16
6	Forestay	3/8
7	Backstay	9/32

Roller	furling r	nast	Classic mast					
Ι	14.83	m	Ι	14.83	m			
J	5.035	m	J	5.035	m			
Р	13.08	m	Р	13.24	m			
Е	4.52	m	Е	4.52	m			



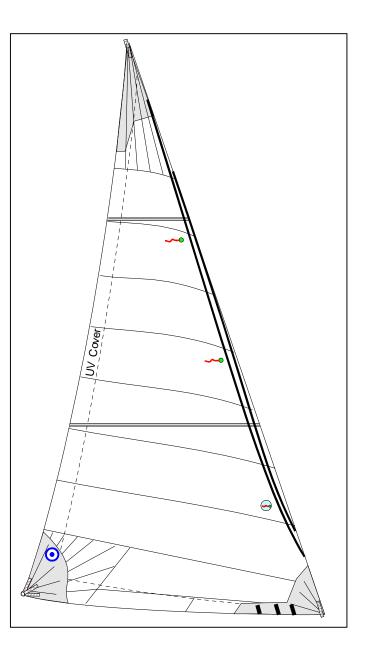








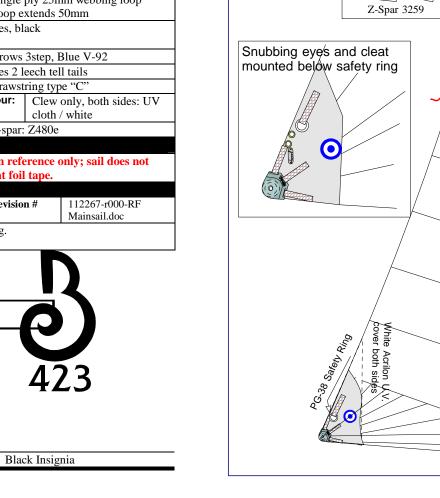
Headsail Spec	ification ar	d Techni	ical W	Vorkshoo	.t			
Model Type:		au Oceanis			<i>.</i>			
Sail Type:		rling Genoa						
"I" Dim: 14830				lax Hoist:	14731		Area:	50.00sqmt
		Finis	shed C	Dimensio	าร			
Luff: 14500	D Leech:	13690	Foo		L.P.	.: 70	049 / 140%	6
			Finish	Details				
Material Type:	8.03 Challen	-		Tack Det			uble webb	
Head Detail:	Double Web	bing Loop		Clew Det	ail:			g with Leather
Foam Luff:	Multi track f	oam luff syste	em	Trim Stri		2 se	ets, 2 x 3/8	3" Black
Tell Tale:	Yes, 3 sets			T-tale Wi	ndow:	12'	round	
Leech/foot:	25 mm single	e fold tabling	Ţ	Foil Tape	):	NP	#5	
Leech Cleat:	241 Alum. C	leat with snu	bbing	Foot Clea	at:	2 #.	3 eyelets a	t tack
	eyes							
Leech Lines:	Foot and Lee		cron	Seam:		V-9	2 blue 2-3	Sstep
Bag Type:	Drawstring t							
U.V. Cover:	Yes, Starboa	rd	Cover	Material/C	Colour:	Whi	te U.V. M	ark Cloth
Furling System	n: Profurl	B35M / Ben	Part nu	mber: 1122	65	•		
		Drav	wing l	nformatic	n			
Drawn By:	BP Date	e:	9-9-02		Rev #: 0	112269	9-R000- R	F Genoa.doc
Additional Notes	: IST PRO	DUCTION S	SAIL	•				
		Tac	k/Reef	ing Detail	:			
		Co	ver on S	tarboard Side	I 600 1200 1800	١		





Sail Type:Roller Furling Mainsail"""Roller Furling Mainsail"""Area:27.20sqrFinished DimensionsLuff:12930Leech:13176Foot:4492Material Type:8.9/9.3 Challenge/ContenderClew Slug/Car:Z-spar 3259 Clew blockHead Detail:Single ply 25mm webbing loop Loop extends 50mmClew Slug/Car:Z-spar 3259 Clew blockHead Detail:Single ply 25mm webbing loop Loop extends 50mmClew Slug/Car:Z-spar 3259 Clew blockHead Detail:Single ply 25mm webbing loop Loop extends 50mmInsignia:Yes, blackClew Detail:Seams:2 rows 3step, Blue V-92Draft Stripe:Yes, 2x3/8" blackClew Tell Tale:Yes 2 leech tell tailsLeech Cleat:241 Alum cleat with snubbing eyesBag Type:Drawstring type "C"Luff RopeNPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.Clew Cutback Details:Action Mast Section:Z-spar: Z-spar: Z480eClew Cutback Details:Action Mast Section:Z-spar: Z480e <th colspa<="" th=""><th>Model Typ</th><th>e:</th><th>-</th><th>Bene</th><th>teau (</th><th>Cea</th><th>nis 4</th><th>23 U.</th><th>S.A.</th><th></th><th></th><th></th><th></th><th></th></th>	<th>Model Typ</th> <th>e:</th> <th>-</th> <th>Bene</th> <th>teau (</th> <th>Cea</th> <th>nis 4</th> <th>23 U.</th> <th>S.A.</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Model Typ	e:	-	Bene	teau (	Cea	nis 4	23 U.	S.A.					
Finished Dimensions         Luff:       12930       Leech:       13176       Foot:       4492         Finish Details         Material Type:       8.9/9.3 Challenge/Contender       Clew Slug/Car:       Z-spar 3259 Clew block         Head Detail:       Single ply 25mm webbing loop Loop extends 50mm       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Seams: 2 rows 3step, Blue V-92         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         Tack and Clew Cutback Details:         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Drawing Informati	Sail Type:			Roller F	urling I	Mains	ail								
Luff:       12930       Leech:       13176       Foot:       4492         Material Type:       8.9/9.3 Challenge/Contender       Clew Slug/Car:       Z-spar 3259 Clew block         Material Type:       8.9/9.3 Challenge/Contender       Clew Slug/Car:       Z-spar 3259 Clew block         Head Detail:       Single ply 25mm webbing loop Loop extends 50mm       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: I cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Mame:       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112	"P" Dim:	130	080			"	E" D	im:	452	20		Area	a:	27.20sqmt	
Finish Details         Material Type:       8.9/9.3 Challenge/Contender       Clew Slug/Car:       Z-spar 3259 Clew block         Head Detail:       Single ply 25mm webbing loop Loop extends 50mm       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Draft Stripe:       Yes, 2x3/8" black       Seams:       2 rows 3step, Blue V-92         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-spar: Z600E       Boom Section       Z-spar: Z480e         Tack and Clew Cutback Details:       Z-spar: Z480e         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Drawing Information         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF Mainsail.doc						F	inish	led E	Dime	nsions					
Material Type:       8.9/9.3 Challenge/Contender       Clew Slug/Car:       Z-spar 3259 Clew block         Head Detail:       Single ply 25mm webbing loop Loop extends 50mm       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Draft Stripe:       Yes, 2x3/8" black       Seams:       2 rows 3step, Blue V-92         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-spar: Z600E       Boom Section       Z-spar: Z480e         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Drawing Name:       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF Mainsail.doc	Luff:	12	930	Le	ech:		131	76				Foot:	44	92	
Head Detail:       Single ply 25mm webbing loop Loop extends 50mm       Tack Detail:       Single ply 25mm webbing loop Loop extends 50mm         Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Draft Stripe:       Yes, 2x3/8" black       Seams:       2 rows 3step, Blue V-92         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         Drawing Bi: 100       C: 500       Note: These are for design reference only; sail does not have cut back or cut out at foil tape.         Drawing Information         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF Mainsail.doc							Fi	nish	Deta	ails					
Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Loop extends 50mm         Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         Tack and Clew Cutback Details:         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Drawing Information         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF			8.9/	9.3 Challe	nge/Co	ontenc	ler			-	Z-spar	3259 Clev	w blo	ck	
Clew Detail:       Pg 38 safety clew ring with webbing       Insignia:       Yes, black         Draft Stripe:       Yes, 2x3/8" black       Seams:       2 rows 3step, Blue V-92         Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         Tack and Clew Cutback Details:         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does not have cut back or cut out at foil tape.         Drawing Information         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF	Head Detail					bbing	loop		Tacl	C Detail:				bing loop	
Image: Note of the optimized of the optimiz				1							Loop e	xtends 50	mm		
Draft Stripe:       Yes, 2x3/8" black       Tell Tale:       Yes 2 leech tell tails         Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         Tack and Clew Cutback Details:         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does not have cut back or cut out at foil tape.         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF         Name:       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF	Clew Detail:		0	•	lew rin	g wit	h		Insi	gnia:	Yes, bl	ack			
Leech Cleat:       241 Alum cleat with snubbing eyes       Bag Type:       Drawstring type "C"         Luff Rope       NPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.       Cover Material/Colour:       Clew only, both sides: U cloth / white         Mast Section:       Z-Spar: Z600E       Boom Section       Z-spar: Z480e         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does not have cut back or cut out at foil tape.         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF									Sear	ns:	2 rows 3step, Blue V-92				
Luff RopeNPS#6 Foil Tape. Luff tape ends at the foot/luff intersection.Cover Material/Colour: $\ Clew only, both sides: Ucloth / whiteMast Section:Z-Spar: Z600EBoom SectionZ-spar: Z480eTack and Clew Cutback Details:A: 50mmB: 100C: 500Note: These are for design reference only; sail does nothave cut back or cut out at foil tape.Drawing423-rfmDrawn By:BobDate:11-20-00Revision #112267-r000-RFMainsail.doc$	Draft Stripe	raft Stripe: Yes, 2x			Yes, 2x3/8" black					Tale:	Yes 2 leech tell tails				
Mast Section:     Z-Spar: Z600E     Boom Section     Z-spar: Z480e       Tack and Clew Cutback Details:       A:     50mm     B:     100     C:     500     Note: These are for design reference only; sail does not have cut back or cut out at foil tape.       Drawing       423-rfm     Drawn By:     Bob     Date:     11-20-00     Revision #     112267-r000-RF	Leech Cleat:		241	Alum clea	cleat with snubbing eyes										
Tack and Clew Cutback Details:         A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does no have cut back or cut out at foil tape.         Drawing       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF Mainsail.doc	Luff Rope						e end	ls at	Cov	er Material/C	Colour:			oth sides: UV	
A:       50mm       B:       100       C:       500       Note: These are for design reference only; sail does not have cut back or cut out at foil tape.         Drawing Name:       423-rfm       Drawn By:       Bob       Date:       11-20-00       Revision #       112267-r000-RF Mainsail.doc	Mast Sectio	n:	Z-S	par: Z600	Е		Во	om S	ectior	1	Z-spar:	Z480e			
bave cut back or cut out at foil tape.       Drawing Information       Drawing Name:     Drawn By:     Bob     Date:     11-20-00     Revision #     112267-r000-RF					Та	ck ai	nd C	lew	Cutb	ack Detai	IS:				
Drawing Name:     423-rfm     Drawn By:     Bob     Date:     11-20-00     Revision #     112267-r000-RF       Mainsail.doc	A: 50m	m	B:	100	C:			have	cut b	ack or cut o			ly; sa	il does not	
Name: Mainsail.doc		10		T							D		100 0		
Additional Notes: Einished Dimensions include head and tack webbing	Name:		-	L	rawn E	sy:	Bob	Da	ite:	11-20-00	Revisio				
Additional Notes. Thissied Dimensions include nead and tack webbing.		lotes	s:	Finish	ed Din	nensic	ons in	clude	head a	and tack web	bing.				

⊻\_\_\_\_



Rise: 85mm per 1000 mm of E

Boom

Tack/Clew Detail

Beneteau Part #: 112267

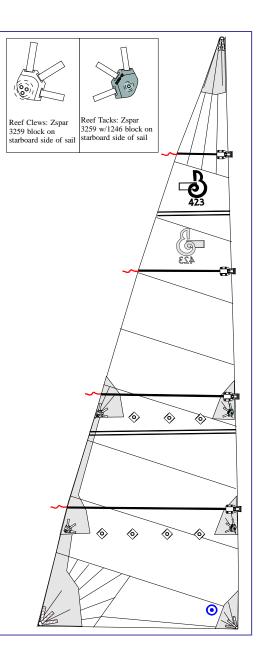
 $( \circ )$ 

B

-**D** 423



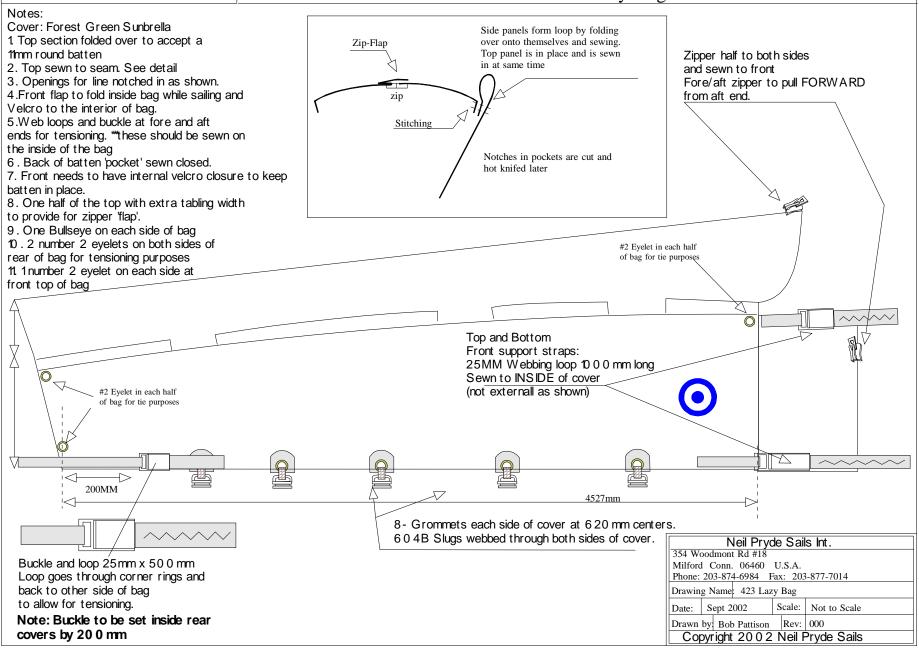
Model Type:	-		neteau		Tec											
Sail Type:					113 72	5										
"P" Dim:	13240	ully Battened Mainsail 3240 ("E" Dim: 4520 Rake						ke: 301 Area:					33.20sqmt			
	13240		. Dini.	-				nsions		1	Alea		55.208	sqiiii		
Latte	10110			FI			Ime	nsions	5		5	- 1 -	4.4.57	7		
Luff:	13110		Leech:		1366						FC	oot:	445'	/		
_					Fin	ish										
Material Type:			Challenge					Detail				ing with		r		
Head Detail:			ring with					/ Slug/C				102) Ca	÷			
Head Slide:			B012 bel		g		Clev	/ Reefs		starb	oard si	de.		Dia: 60mm or		
Clew Detail:	50r	nm SS i	ring with I	eather			Tack	Reefs:			-w/124 oard si		r Dia: 3	5mm on		
Seams	V-9	2 blue.	2 rows -3	step			Insig	jnia:		Yes,	black					
Battens:			flat full le	0												
Bat. Lengths:	# 1	1152	#	<b>2</b> 21	139		#3	3078		#4	3810		#5	na		
Bat fittings:			A114 Sel				Tell	Tale:			each ba					
Leech Cleat:		241 Alum. With snubbing eyes										25mm single tabling				
Luff Tape:		5" with 8mm rope						Trim stripe         2x3/8" black								
Leech Line:		4mm Dacron line						Sail Ties: Yes, 3 x 2.4M ties								
Reef Cleat:		241 Alum.  Reef 1 15% Reef 2						Bag Type:   Drawstring type "D"								
Reef Hts. % of	-	ef 1	15%		35% Reef 3				-	na						
Luff Slides:			each batte	n: A01				eyes:			eyelet	8				
Ditty Bag: Mast:	Z-6	h Geno	a		Boo		de logos 2 bullseyes Z-480									
Wast.	Z-0	01	Та	ok or			<b>Nuth</b>	aak D	otai	-	0					
A: 50	B: 00	0		<b>CK a</b> l 350			2000 000	ack D			<i>F</i> :	280	<i>G</i> :	65		
Drawing Info		0	C.	330	L	):	000	L.	20	J	Γ:	200	0.	03		
Drawing into Drw Name:		lm.doc	Dager	n Bv:	Bob	D	ate:	Oct-0	2	Rev#	1120			lain.doc		
Additional Not			c and Clev		- • •				۷ ک	Kev#	1124	200-KU	JU-ULIM	am.uoc		
Auditional No	163.	Tack		v onset	is meas	uleu li		lues.								
- ₩ ₩ "B+"		Reef		Tack Gate								5	3			
	Cut	haal	details	Щ	_					In	cionic	n Deta	;1			
	UUL	DACK	uctans							111	signia	i Deta	11			

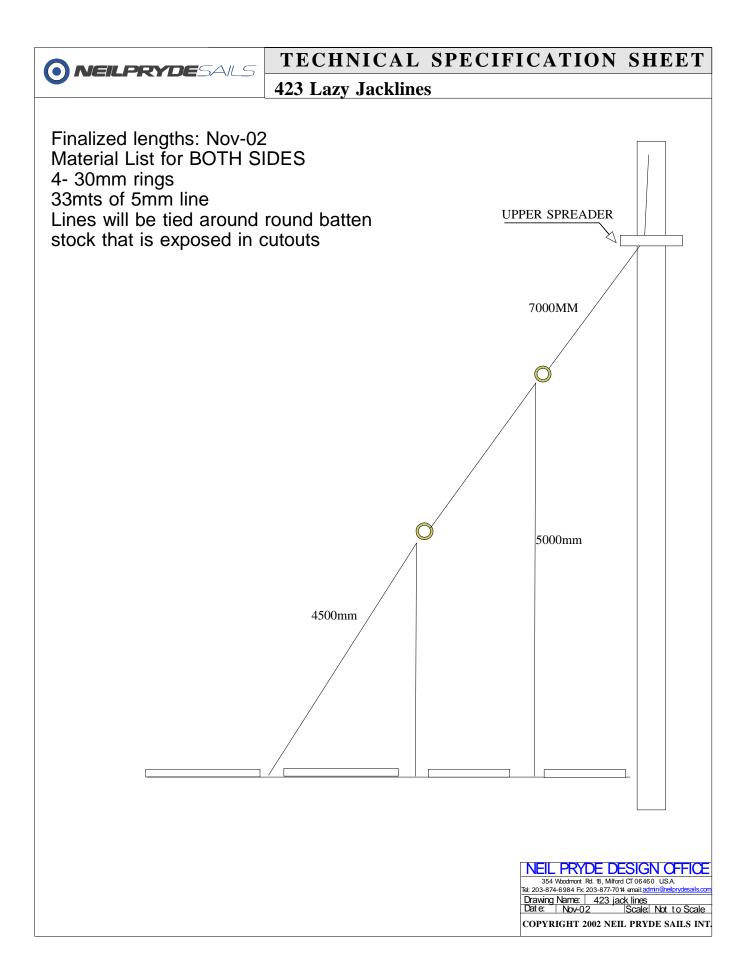


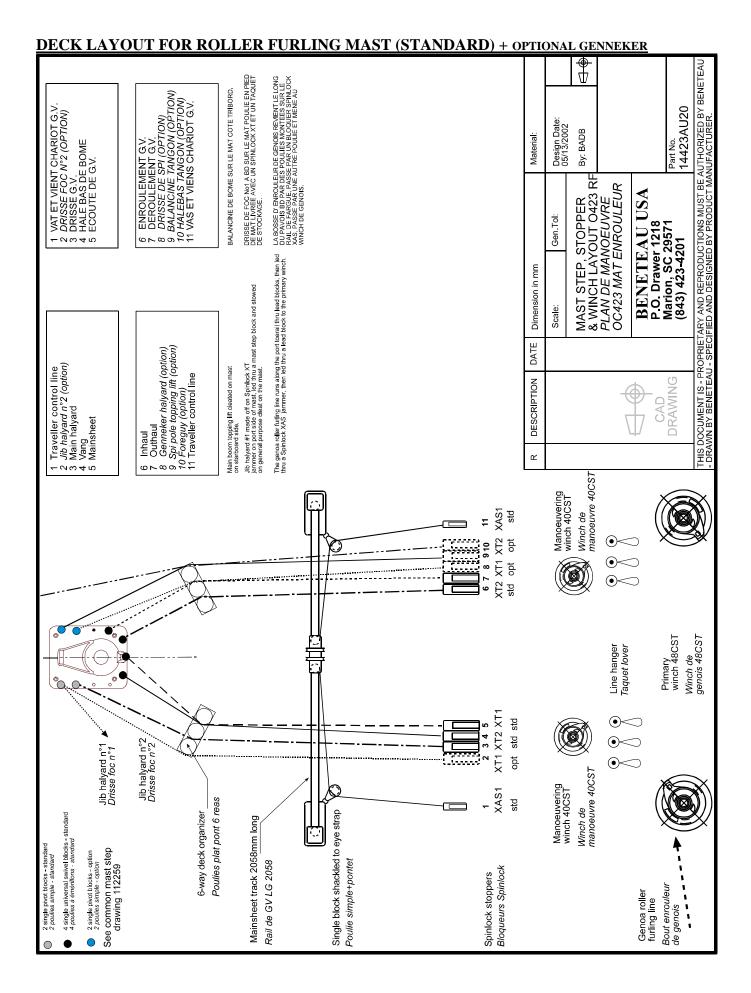
## 

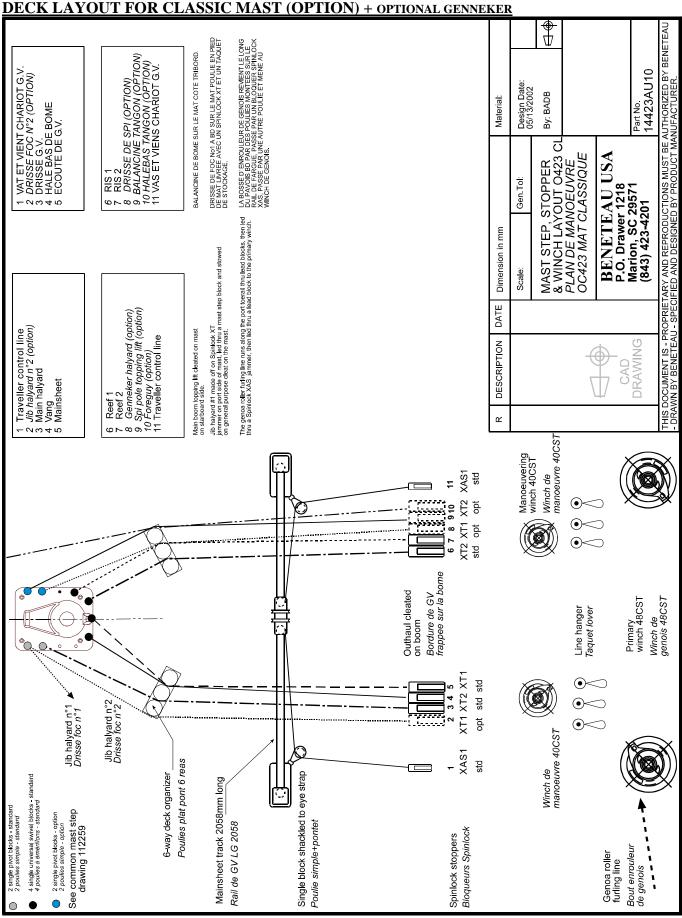
#### TECHNICAL SPECIFICATION SHEET

#### Beneteau 423 Classic Lazy Bag

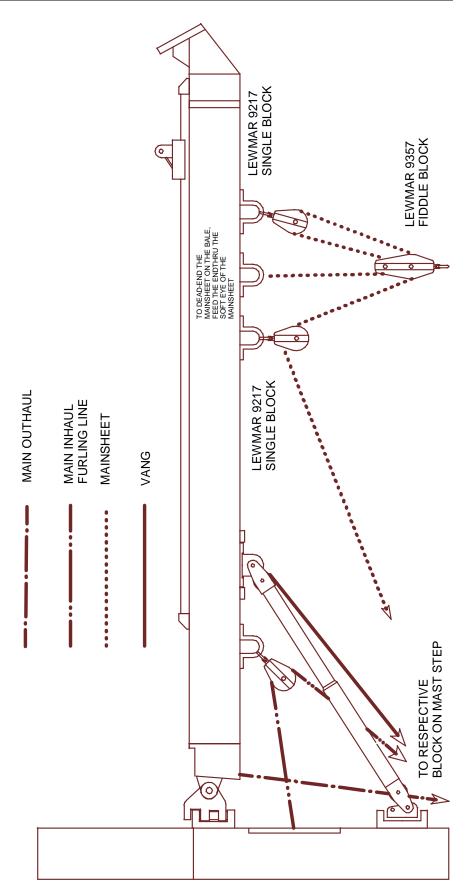




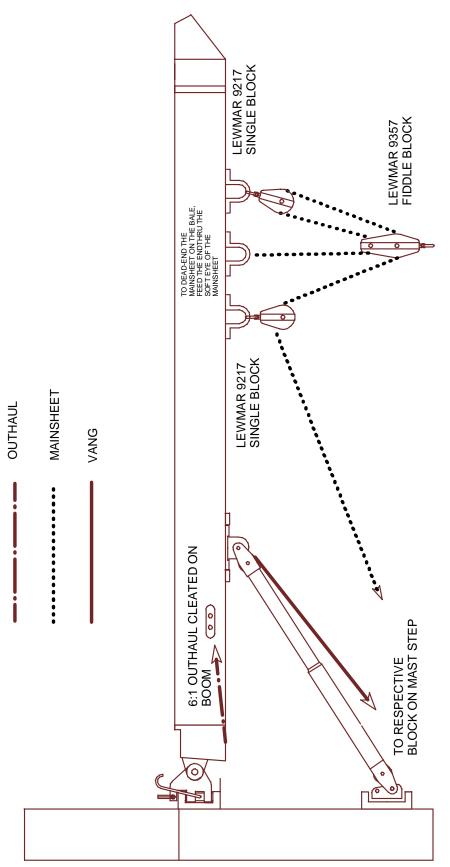




#### MAINSHEET LAYOUT FOR ROLLER FURLING MAST (STANDARD)



# MAINSHEET LAYOUT FOR CLASSIC MAST



# **RUNNING RIGGING SPECS**

ITEM PART No.	REV	QTY	DESCRIPTION	MAKE & TYPE	COL.	TERMINAL 1	TERMINAL 2	NOTES	DIA	LENGTH mm	FEET	I	N	
(6 digit) 113172	00	1	GENNEKER HALYARD	SAMSON XLS EXTRA	RED	SOFT EYE SNAPSHACKLE W2477	WHIPPING AND LOOP	1. optional.	7/16"	40000	131	2	13 /	16
112594	00	1	GENNEKER HALYARD	SAMSON LSTC	RED	SOFT EYE SNAPSHACKLE WICHARD 2475	BURNT		7/16"	40000	131	2	13 /	16
112595	00	1	GENNEKER TACK STROP	SAMSON LSTC	BLACK	BURNT	BURNT		1/2"	7000	22	11	9/	16
112598	00	2	GENNEKER SHEET - twin sheet system	SAMSON LSTC	RED	BURNT	BURNT		7/16"	30000	98	5	1 /	16
113178	01	1	GENNEKER TACK STROP	SAMSON LS	RED	SOFT EYE SNAPSHACKLE W2475	WHIPPING	1. optional.	1/2"	6097	20	0	1 /	16
113177	00	1	GENNEKER SHEET - single sheet system	SAMSON XLS EXTRA	RED	SOFT EYE SNAPSHACKLE W2475	WHIPPING		7/16"	30000	98	5	1 /	16
	00	1	WHISKER POLE TOPPING LIFT	SAMSON XLS EXTRA	BLACK	SOFT EYE SNAPSHACKLE W2475	WHIPPING AND LOOP	1. optional.	3/8"	40000	131	2	13 /	16
	00	1	WHISKER POLE DOWNHAUL	SAMSON XLS EXTRA	RED	SOFT EYE SNAPSHACKLE W2475	WHIPPING AND LOOP	1. optional.	3/8"	25000	82	0	4 /	16
	00	1	JIB HALYARD #1	GLEISTEIN TASMANIA	BLUE	KNOT EYE 8mm D SHACKLE Z3637	BURNT	1. standard. 2. pre-installed on mast.	12mm	36000	118	1	5 /	16
	00	1	JIB HALYARD #2	SAMSON XLS EXTRA	GREEN	SOFT EYE SNAPSHACKLE W2475	WHIPPING AND LOOP	1. optional.	7/16"	36501	119	9	0 /	16
113179	00	2	JIB SHEET	SAMSON LS	BLACK	WHIPPING	WHIPPING	1. standard.	1/2"	14500	47	6	7/	8
	00	1	GENOA RF LINE	NEW ENGLAND DOUBLE BRAID	YELLOW	BURNT	BURNT	1. Supplied with profurl.	3/8"	30000	98	5	1 /	16
	00	1	MAIN HALYARD - classic mast	GLEISTEIN TASMANIA	BLACK	KNOT EYE 8mm D SHACKLE Z3637	BURNT	1. standard. 2. pre-installed on mast.	12mm	36000	118	1	5 /	16
	00	1	MAIN HALYARD - roller furling mast	GLEISTEIN TASMANIA	BLACK	KNOT EYE 6mm D SHACKLE Z56	BURNT	1. standard. 2. pre-installed on mast.	12mm	36000	118	1	5 /	16
113180	00	1	MAINSHEET	SAMSON LS	GREY	SOFT EYE	WHIPPING AND LOOP	1. standard.	1/2"	23000	75	5	1/	2
	00	1	MAIN BOOM TOPPING LIFT - classic mast	GLEISTEIN TASMANIA	YELLOW	KNOT EYE 7mm D SHACKLE Z 3639	BURNT	1. standard. 2. pre-installed on mast.	8mm	31000	101	8	7 /	16
	00	1	MAIN BOOM TOPPING LIFT - roller furling mast	GLEISTEIN TASMANIA	YELLOW	KNOT EYE 7mm D SHACKLE Z 3639	BURNT	1. standard. 2. pre-installed on mast.	8mm	31000	101	8	7 /	16
	00	1	VANG LINE	GLEISTEIN TASMANIA	RED	BURNT	BURNT	1. standard - supplied with vang.	10mm	17000	55	9	5/	16
113154	01	2	MAINSHEET TRAVELLER CONTROL LINE	SAMSON LS	WHITE	SOFT EYE	WHIPPING	1. standard.	5/16"	9500	31	2	0 /	16
	00	1	MAIN RF INHAUL LINE	GLEISTEIN TASMANIA	YELLOW	BURNT	BURNT	1. standard - supplied with mast.	10mm	18000	59	0	5/	8
	00	1	MAIN RF OUTHAUL LINE	GLEISTEIN TASMANIA	BLACK	BURNT	BURNT	1. standard - supplied with boom.	12mm	18000	59	0	5 /	
	00	1	OUTHAUL LINE #1 · classic mast	GLEISTEIN TASMANIA	RED	BURNT	KNOT EYE ON SINGLE BLOCK+ BECKETT Z253	1. standard - supplied with boom.	8mm	3000	9	10	1/	8
	00	1	OUTHAUL LINE #2 - classic mast	GLEISTEIN TASMANIA	RED	KNOT EYE	BURNT	1. standard - supplied with boom.	8mm	4000	13	1	1 /	2
	00	1	REEF 1 - classic mast	GLEISTEIN TASMANIA	GREEN	BURNT	BURNT	1. supplied with boom.	10mm	22000	72	2		8
	00	1	REEF 2 - classic mast	GLEISTEIN TASMANIA	YELLOW	BURNT	BURNT	1. supplied with boom.	10mm	31000	101	8	7/	16

# XIV) 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.

To prevent any over pressure in the system during filling, never force the filling nozzle deep down the filler pipe and keep an eye on the vent hole(s) through which the excess water will be discharged.

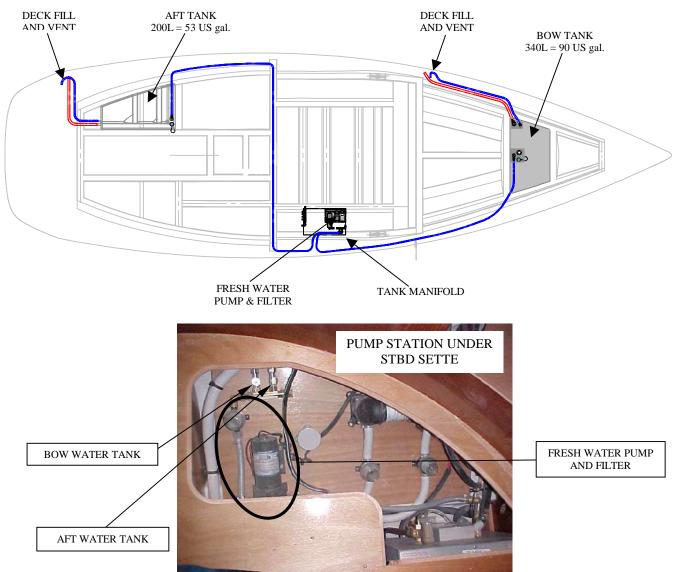
When the system has not been used for a long period of time, the tanks and pipes should be cleansed with an acetic acid solution (white vinegar).

The water drains out from the sink and wash basins through their own thru-hulls. Close them when the water system is not used.

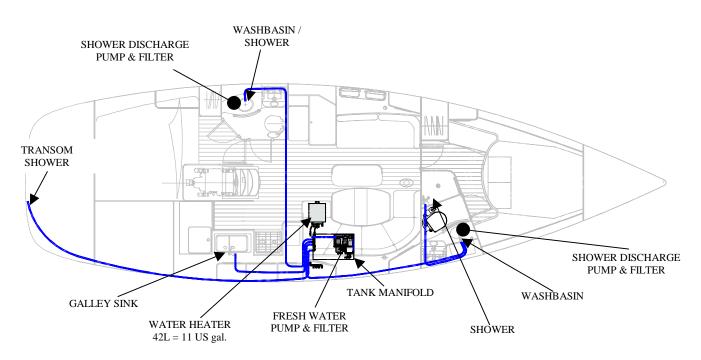
#### LAY OUT OF THE FRESH WATER SYSTEM

#### ALL VERSIONS

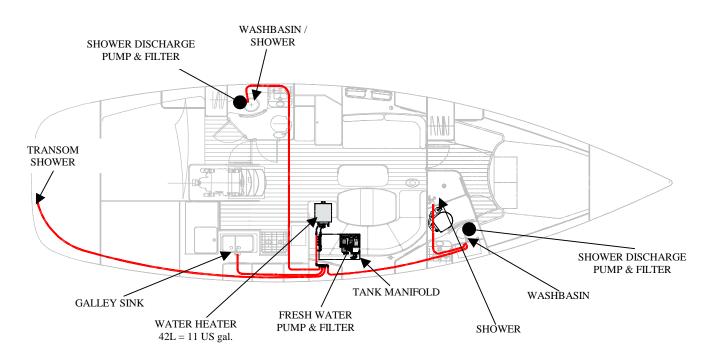
#### FRESH WATER FILL AND TANK CIRCUIT



#### COLD WATER CIRCUIT

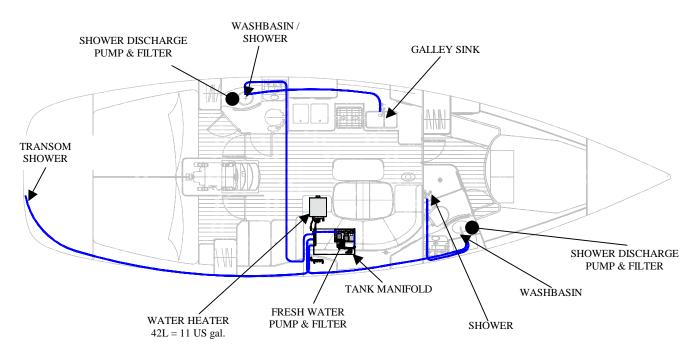


#### HOT WATER CIRCUIT

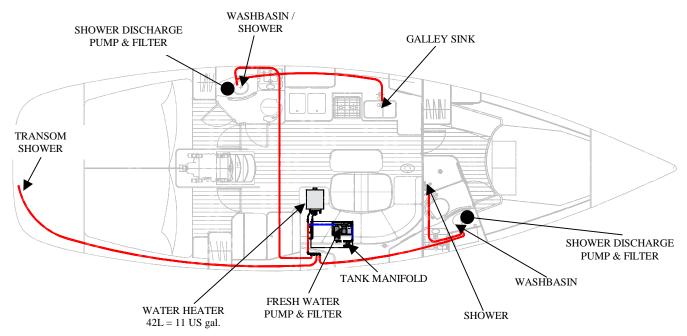


#### 3 CABIN / 2 TOILET

#### COLD WATER CIRCUIT



#### HOT WATER CIRCUIT



#### Make sure the bilge pump system is in good working order before you put out to sea.

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

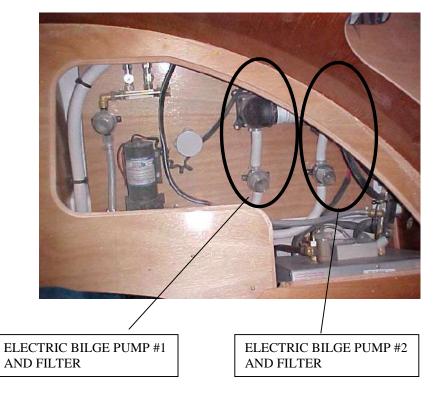
- Locate the manual bilge pump and the handle.
- Locate the on switch of the electric bilge pump and get to know how the seacocks work (for the boats fitted with an electric bilge pump).

(See the lay out drawing of the system - next page)

Make sure that the bilge pump intake strainer is not blocked with dirt.

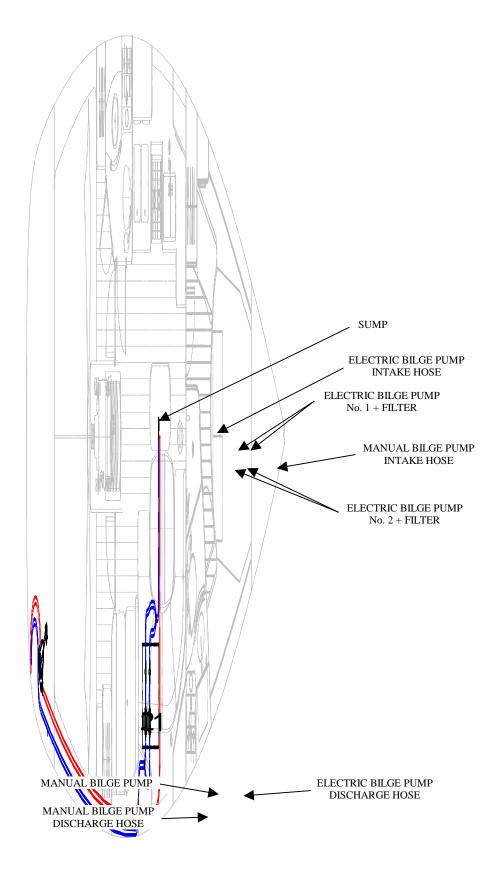
Regularly clean the intake strainer on the sump and the filter of the system.

#### PUMP STATION UNDER STBD SETTE



# LAY OUT OF THE BILGE PUMP SYSTEM

#### ALL VERSIONS



#### Close all the seacocks when you leave the boat.

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

Make sure that all seacocks, which are not used, are closed before you put out to sea.

Opening and closing of the seacocks

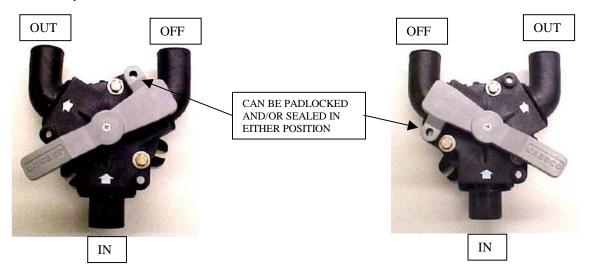


Closed

REF	DESCRIPTION
1	Head Discharge
2	Head Intake
3*	Washbasin / Shower Discharge
4	Optional Waste Tank Discharge
5	Galley Sink Discharge
6	Engine Cooling Water Intake
7	Ice Box Draining
8	Stern Tube Cooling Intake Valve
9	Speed/Log, Depth Sounder Thruhulls
10	Electric Bilge Drain
11	Manual Bilge Drain
12	Exhaust
13	Sail Locker Drain
14	LPG Locker Drain

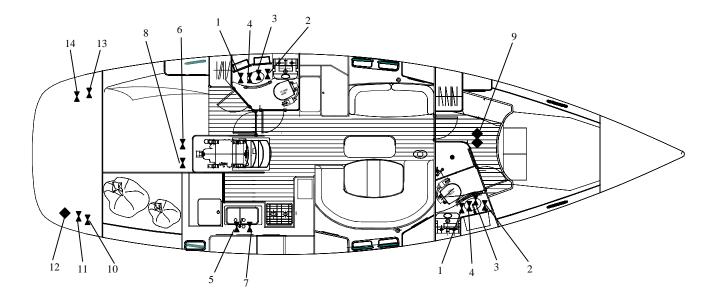
\* The washbasin and shower discharge, connect to the same thru hull through a set of 1/4 turn valves and a tee. The washbasin discharge will be the one with a slightly larger diameter hose.

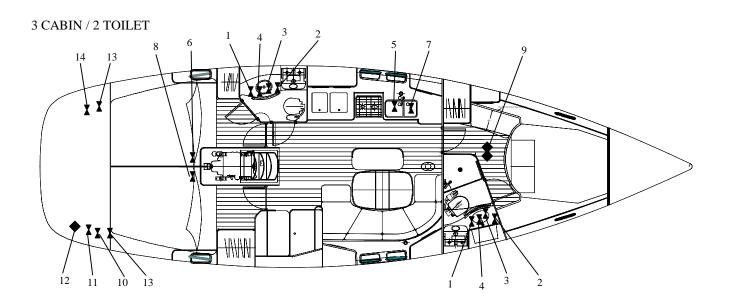
Operation of three-way valve for toilets



# SEACOCK AND THRU-HULL LAY OUT

#### 2 CABIN / 2 TOILET





### XVII) ELECTRIC SYSTEMS

When the voltage is not specified, all the functions or panels are in 12 Volts.

#### 12V Electric System

#### Never work on a live electric fitting.

Never tamper with an electric fitting. Call in a technician qualified in marine electricity.

The batteries must be carefully and safely stowed.

In order to prevent a short circuit between the battery terminals, do not store conductive objects near the batteries (e.g. metal tools, ...)

Never alter the specifications of the breakers, which protect against overload.

Never fit or replace the electric materials or appliances with components, which exceed the system amperage.

#### 110V-220V Electric System

Boats are fitted with a 110V/60Hz or a 220V/50Hz system (some as standard, others as an option, depending on the models). 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.

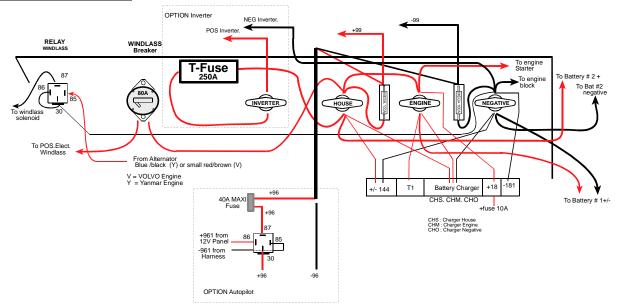
#### Do not immerse the boat / shore cable socket.

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.

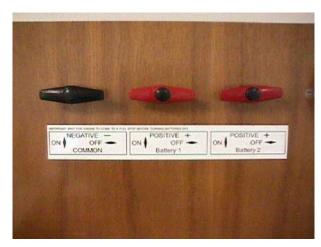
#### **ELECTRICITY LAY OUT**



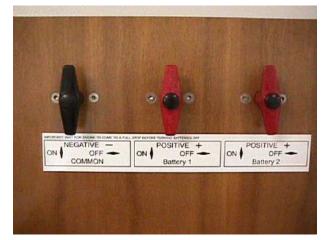
# **BATTERY SWITCH OPERATION**

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.

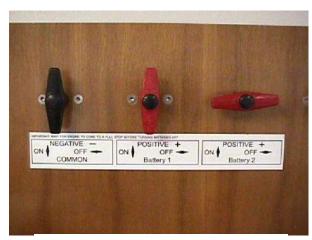
#### WARNING: Do not turn both positive battery switches off while engine is running



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

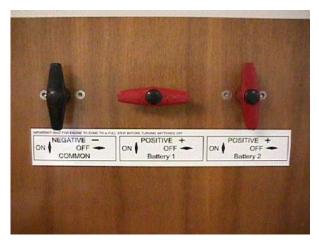


Everything is ON, 12VDC power available to start engine and/or run equipment

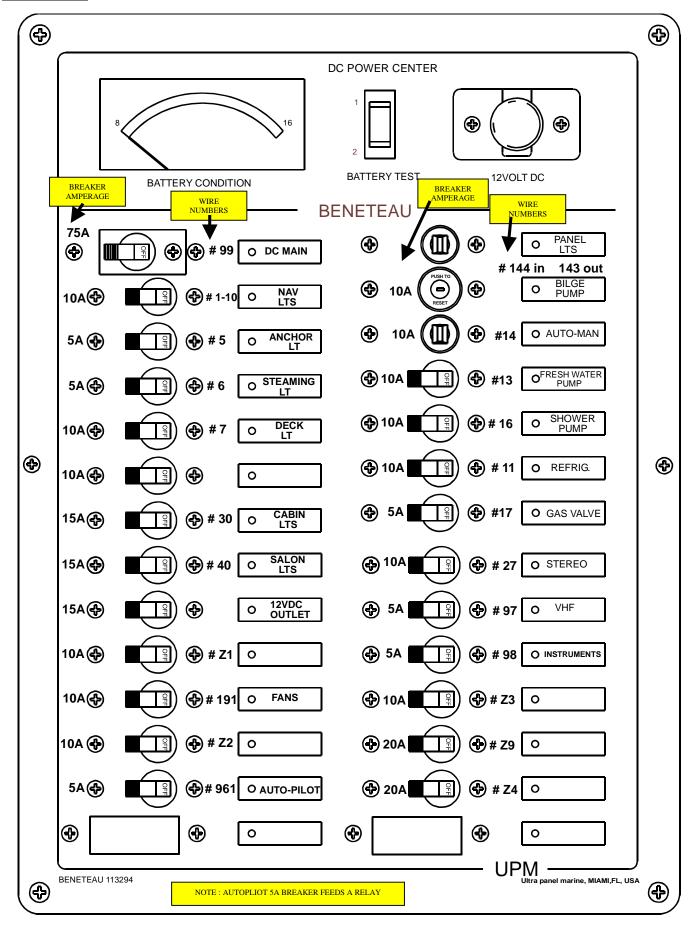


Configuration to start engine ,while house/service is off or down

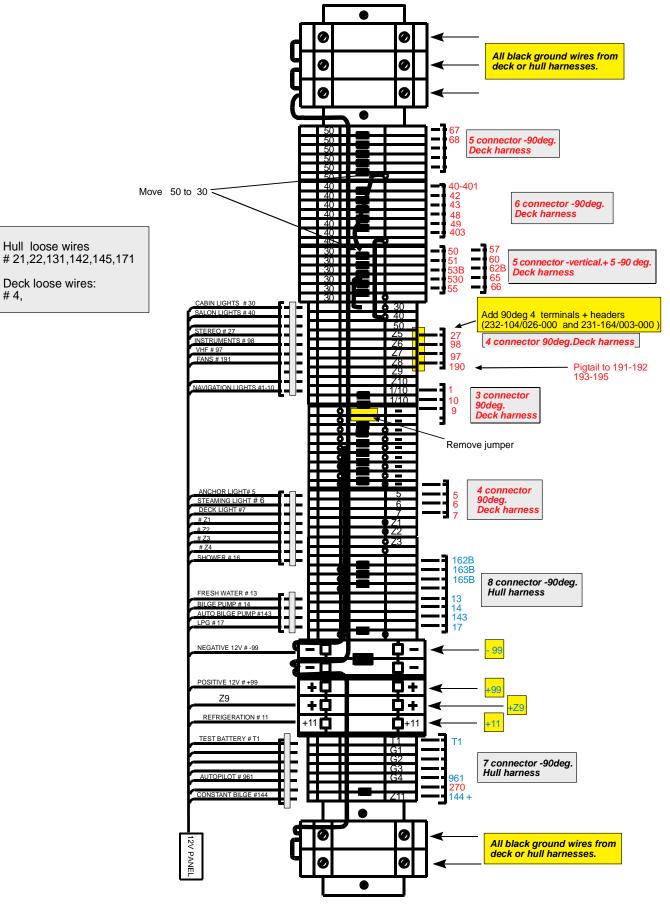
You can turn house switch ON, while engine is running to charge house.



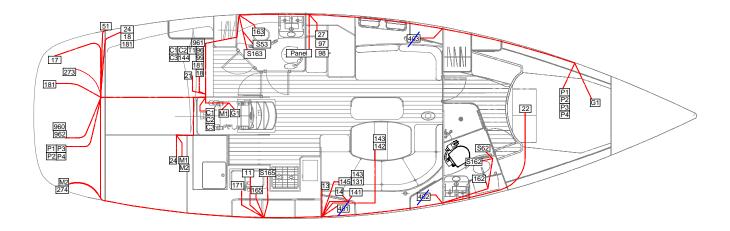
Engine is off, Run equipment from house only (like at anchorage)



# WAGO BLOCK

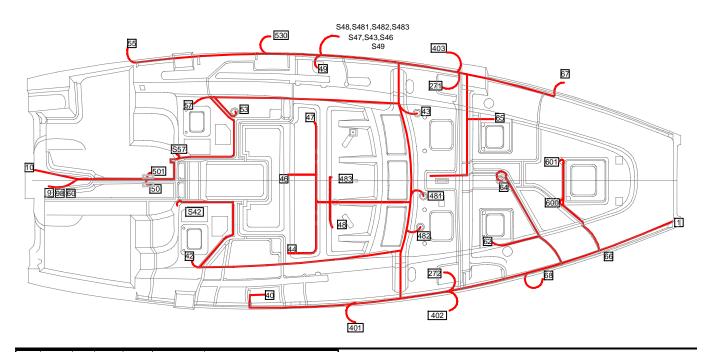


# HULL HARNESS LAYOUT



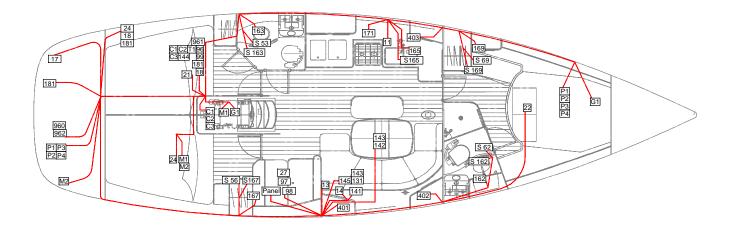
10	62	14/2	R	20.400	10 tin	)5° ned		STBD FWD showe	r drain pump	Г		1	1 1						
s	62	16/2	R	17.800		1	on connector	STBD FWD shower	ceiling light switch						105° tinned				
-40	2	10/2	R/D	5.300			picked from 401	STBD salon two re	saoing light						Î				_
40	1	10/2	R/D	15.200			On connector	OTES salon alt rea	ding light -										-
14	4	14/2	R/B	15.500				Bilge pump 1											-
14	8	14/2	R/B	15.500				Bilge pump 2											-
1:	3	14/2	R/B	15.500				Fresh water press	ure										-
14	2	14/2	R/B	17.100				Bilge pump (mrg	s)										_
13	31	16/1	R	15.500				Fresh water pump	o light (mrg's)										-
14	5	16/2	R/B	15.500				bilge pump alarm	(marion)										-
14	3	10/1	R	21.500				float swich bilge	pump (marion)										_
11	1	6/2	R/B	15.000				Fridge											_
171	1	16/2	R/B	14.800				Propane solenoid I	light		22	16/2	R/B	19.80			FWD water tank ga	auge	_
16	5	14/2	RB	18.600 15.000				Ice box drain pump	0		M1	8/1	YG	3.500		Not by the panel	Ground fuel tank to	o engine	_
M		8/1	YG	8.600				Fuel tank ground			G1	14/2	R/B	11.900		Not by the panel	Elec.windlass rela	зу	_
P5,F P1	P6,P7	14/1 14/1	BR	16.300				Bow thruster 12V	1		CHS	8/1	R	2.200		Not by the panel	Charger /engine		_
18	81	14/2	RB	6.500 5.900			Not by the panel	Fan/blower- engin	ne panel to blower		СНМ	8/1	R	2.200		Not by the panel	Charger / house		_
17		16/2	R/B	10.500 6.200				Propane solenoid			CH0	8/1	N	2.200		Not by the panel	Charger / negative	e	_
9		8/2	В	4.000	<u> </u>		Not by the panel	12V autopilot cou	-		144	14/2	R/B	6.000			12V constant powe	er -	_
96		8/2	R/B	3.100				12V autopilot drive	e unit		T1	16/1	R	6.000			Engine bat. test		_
96		16/2	R/B	6.200				12V autopilot rela		_	163	14/2	R	7.00 4.00			Port aft shower dra	in pump	
51		16/2	R/B	10.700				Port aft cabin aft re	ading light		S53	16/2	R	4.400		On connector	Port aft shower cei		-
24	_	16/2	R/B	7.600				STBD aft fuel tank	gauge		403	16/2	R/D	5.100		On connector	Port colon find roo	ding light	-
24	11	16/2	R/B	0.100				12V Fuel tank stbd	aft		97	16/2	R/B	1.300		On connector	12V -VHF		_
18	8	14/1	R	6.400			Not by the panel	Fan blower. BSW1	+ to engine panel		98	16/2	R/B	1.300		On connector	12V nav.instrument		-
2	1	16/2	R/B	5.900		ł		Port aft water tank	gauge		274	16/2	R/B	11.700		Not by the panel	STBD cockpit spe		-
99	9	4awg /2	R/B	6.000	10 tini	5° ned		Main 12V panel +/-			273	16/2	R/B	10.700	♦ 105°	Not by the panel	Port cockpit spea		-
WIF		SIZE AWG	COLOR	L . (m)	Co	de	NOTE	DE	SIGNATION		964	16/2	R/B	3.100	tinned	Not by the panel	Autopilot linear d		-
_			I						Material: VISA		WIRE.	SIZE AWG	COLOR	L.(m)	Code	NOTE	D	ESIGNATION	
R		DESCRIPTI	ON	DATE	DIM	ENSIO	N: TOL GE	N :	Nateria:	Ļ	R	DESCRIPTI	DN	DATE	DIMENSIO			Material:	VISA
		_	4		$\vdash$	_			DATE : 8/12/02 ВУ : P.LG							TOL GE		DATE : 8/12/02	⊴⊕
		$\ominus$	₽			В	eneteau	423					€		E	Beneteau	423	BY : P.LG	
		FH8 DRAW					Hull Harness	- 2C2T	C6			FH8 DRAW				Hull Harnes	s - 2C2T	C6	
с		n -11-165-dele				D	BENETE P.O. Drawer	AU USA	Part No:		C lengt	h -11-165-dele		/ 3 10/02		BENETE		Part No:	
B		4awg to 10 av ve 270> de		9/02 9/02		ė	Marion, SC (803) 423-42	29571	058680-C		B 143 1	4awg to 10 aw	g	9/02	⊂¢	P.O. Drawer Marion, SC	29571	05868	0-C
	-em0			8/02	THE	S DOCU			MUST BE AUTHORIZED BY BENETEAU DUCT MANUFACTURER.	ŀ	A remo	ve 270> de	ck	9/02	Ŭ	(803) 423-42 MENT IS - PROPRIETARY /		AUST BE AUTHORIZED BY BE DUCT MANUFACTURER.	ENETEAU
-										L					DRAWN BY	BENETEAU - SPECIFIED A	ND DESIGNED BY PROD	DUCT MANUFACTURER.	-

# **DECK HARNESS LAYOUT**



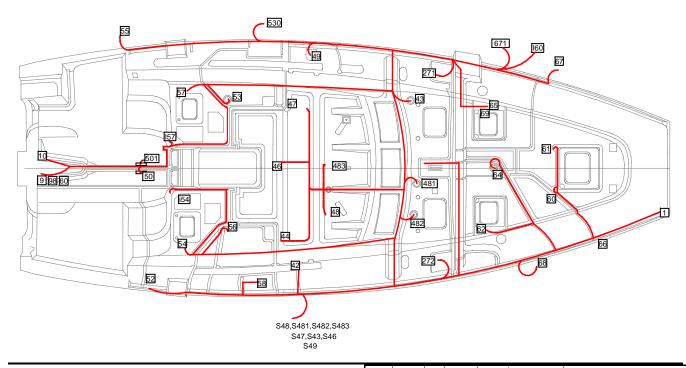
42	16/2	R	15.600	105° tinned		Galley ceiling ligh	at .		Γ	1							
44	16/2	R/B	7.35	1 1	picked from 42	Galley ceiling ligh	nt		VHF	RG8X		8.300			VHH coax		_
40	16/2	R/B	10.85			Galley fluorescen	t light		403	16/2	R/B	4.600	105° tinned		Salon port FWE	reading light	
65	14/2	R	8.000			FWD cabin ceiling	g light		<b>401</b>	16/2	R/B	8.3	Î		Salon STBD af	t reading light	_
600	16/2	R/B	10.500		picked from 65	FWD cabin ceiling	) light		402	16/2	R/B	11.50		looped from 401	Salon STBD FV	VD reading light	_
601	16/2	R/B	1.300		picked from 600	FWD cabin ceilin	g light		191	14/2	R/B	4.500			Salon FWD por	rt fan	_
66	16/2	R/B	10.900			FWD cabin STBD	reading light		49	16/2	R	4.050 2.450			Chart table red	I ceiling light	_
1	14/2	R/B	12.800			Running light			9	16/2	R/B	13.80			Compass light	t .	
									60	16/2	R/B	13.50			12V outlet		_
192	14/2	R/B	10.500			FWD cabin STBD	fan		98	16/2	R/B	14.500		looped on connector	12V Navigation	n instruments	_
62	16/2	R	12.550 10.350			STBD FWD show	ver ceiling light		10	16/2	R/B	14.700			Stern light		_
64	16/2	R/B	2.250		picked from 62	STBD FWD show	ver ceiling light		50	16/2	R/B	10.85			STBD aft cabin	Port reading light	_
68	16/2	R/B	8.900			FWD stbd bathr	room sink light		501	16/2	R/B	1.00		Picked from 50	Port aft cabin S	STBD reading light	_
272	16/2	R/B	8.400		Not by the panel	STBD salon spe	aker		57	16/2	R	13.55 7.350			Port aft cabin c	eiling light	
190	14/2	R/B	8.200			STBD salon fwd	l fan										_
43	16/2	R B	5.600 4.000			Ceiling light sal	on		55	14/2	R/B	3.950			Port aft cabin p	ort reading light	
47	16/2	R/B	5.450		picked from 43	Ceiling light sal	on		195	14/2	R/B	3.750			Port aft cabin far	n	_
46	16/2	R/B	3.000		picked from 47	Ceiling light sale	on		53	16/2	RB	8.500 7.500			Port aft showe	r ceiling light	
48	14/2	RB	9.05 7.450			Ceiling light sale	on table		530	16/2	R/B	2.650			Port aft shower	sink light	
483	16/2	R/B	2.000		picked from 48	Ceiling light sa	lon table		274	16/2	R/B	1.500		Not by the panel	STBD cockpit	speaker	_
482	16/2	R/B	3.200		picked from 483	Ceiling light sa	alon table		273	16/2	R/B	1.500		Not by the panel	Port cockpit sp	eaker	_
481	16/2	R/B	1.150		picked from 482	Ceiling light sal	on table		270	16/1	R	0.100		Not by the panel	Stereo memor	ry .	-
193	14/2	R/B	5.600			FWD cabin por	t fan		27	16/2	R/B	1.800			12V Stereo		_
67	16/2	R/B	6.600			FWD cabin por	t reading light		279	16/1	R	0.100		Not by the panel	12V- Stereo ar	ntenna	_
8	14/2	в	6.200			Common mast	ground		97	16/2	R/B	1.300			12V- VHF rad	io	_
4,5,6,7	16/2	R	6.200	ţ		Mast lights											_
271	16/2	R/B	4.700	105° tinned	Not by the panel	Port salon spea	aker						ŧ				_
WIRE.	SIZE AWG	COLOR	L.(m)	Code	NOTE	DE	SIGNATION	-	51	16/2	R/B	1.300	105° tinned	on connector	Port aft cabin p	oort aft reading light	_
#			()	oouc	NOTE				WIRE.	SIZE AWG	COLOR	L . (m)	Code	NOTE	D	ESIGNATION	
R	DESCRIPTIO	ON	DATE	DIMENSI			Material: VISA		R	DESCRIPTI	DN	DATE	DIMENSIO	N:		Material:	VISA
					TOL G		DATE : 8/12/02	Ð						TOL GI	EN :	DATE : 8/12/02	
	$\ominus$	€			Beneteau	J 423	BY : P.LG			4	<b>b</b>		F	Beneteau	1423	BY : P.LG	- Ψ
	FH8				Deck Harnes	s - 2C2T	C6			FH8	ť				-	C6	
	DRAW	NG				CAU USA		4		DRAW				Deck Harness		00	
C Add	Coax		11/6/02		P.O. Drawe	1218	Part No: 058676-C			_				P.O. Drawer	EAU USA 1218	Part No:	
	d 401-402-40	)3	10/21/02	-6	(803) 423-4	201		_		Coax 401-402-40	03	11/6/02	િ	Marion, SC (803) 423-42	29571	058676	5-C
				THIS DO	JUMENT IS - PROPRIETARY BY BENETEAU - SPECIFIED	AND REPRODUCTIONS N AND DESIGNED BY PROD	MUST BE AUTHORIZED BY BENETEAU DUCT MANUFACTURER.						THIS DOCL DRAWN B			MUST BE AUTHORIZED BY DUCT MANUFACTURER.	BENETEAU

# HULL HARNESS LAYOUT



	22	16/2	R/B	7.300	ĺ			FWD water tank g						1	4.050		1		
-			R	7.90		105°		STBD FWD showe			M1	8/1	Y/G	3.500	105° tinned	Not by the panel	Ground fuel tar	nk to engine	
	162 562	14/2	В	4.90 5.300		tinned		STBD FWD showe			G1	14/2	R/B	11.700		Not by the panel	Elec.windlass	relay	
		16/2	R	5.300			On connector				CHS	8/1	R	2.200		Not by the panel	Charger /engi	ne	_
	402	16/2	R/B	2,700			Picked from 401	STBD salon lwd r			CHM	8/1	R	2.200		Not by the panel	Charger / hou	5e	
-	401	16/2	R/B			_	On connector				CH0	8/1	в	2.200		Not by the panel	Charger / nega	itive	
-	14	14/2	R/B	3.000				Bilge pump 1			144	14/2	R/B	11.000			12V constant p	ower	
	148	14/2	R/B	3.000				Bilge pump 2			T1	16/1	R	11.000			Engine bat. test		
	13	14/2	R/B	3.000				Fresh water pres	sure		163	14/2	R B	16.600 13.300			Port aft shower	drain pump	
	142	14/2	R/B	4.600				Bilge pump (mr	gʻs)		S53	16/2	R	13.700		On connector	Port aft shower	ceiling light switch	_
	131	16/1	R	3.000				Fresh water pur	np light (mrg's)		403	16/2	R/R	17.00		On connector	Port salor fwd	reading light	_
	145	16/2	R/B	3.000				Bilge pump alar	m (marion)		97	16/2	R/B	1.300		On connector	12V -VHF		
1	143	10/1	R	9.000				Float swich bilg	e pump (marion)		98	16/2	R/B	1.300		On connector	12V nav.instrum	pents	
-	11	6/2	R/B	17.80	0			Fridge			169	14/2	R	20.900			STBD FWD sho		-
-	171	16/2	R/B	17.60	0			Propane solenoi	d light		S69	14/2	B R	17.900 18.300		On connector	STBD fwd bath	ceiling light switch	
-	165	14/2	RB	21.40				Ice box drain pu	mp		167		R	6.4000		On connector	STBD aft showe	r drain numn	
-	M2	8/1	YG	8.600				Fuel tank ground	1			14/2	B	3.400 3.800		On connector			
	5,P6,P7	14/1	B	15.90	0			Bow thruster 12	2V		S56 274	14/2					STBD aft toilet STBD cockpit	ceiling light switch	_
P	1 181	14/1 14/2	R	6.500			Not by the panel	Fan/blower- eng	ine panel to blower			16/2	R/B	7.300 11.300		Not by the panel			
-	17	16/2	B R/B	5.900 11.10	_		Not by the panel	Propane solenoid	·		273	16/2	R/B		<b>♦</b> 105°	Not by the panel	Port cockpit s		
-	96	8/2	R	6.200			Not by the panel	12V autopilot co	urse computer		964	16/2	R/B	3.100	tinned	Not by the panel	Autopilot line	ar drive clutch	
-		8/2	B R/B	4.000			Not by the panel	12V autopilot dr											_
-	962			3.1000	-			-											
	961	16/2	R/B	11.200	,			12V autopilot rel	ay										
-				7.600		_													
-	24	16/2	R/B					STBD aft fuel tan											
.	241	16/2	R/B	0.100	·			12V Fuel tank stb											
.	18	14/1	R	6.400			Not by the panel	Fan blower. BSV	V1+ to engine panel										_
1 -	21	16/2	R/B	10.900	)	ŧ		Port aft water tan	k gauge	1	I								_
L	99	4awg /2	R/B	11.00	0	105° tinned		Main 12V panel	*/-		WIRE	SIZE	COLOR	L.(m)	Code	NOTE	DESIG	NATION	
WI ‡		SIZE AWG	COLOR	L . (m	) (	Code	NOTE	DESIG	SNATION		# R	AWG		. ,				Material:	VISA
R		DESCRIPTIC	IN	DATE	DIM	ENSION:	I	1	Material: VISA	-	ĸ	DESCRIPTIO	JIN	DATE	DIMENSION:	TOL GEN	1.	Material: DATE : 8/12/02	
H							TOL GEI	N :	DATE : 8/12/02	<u></u>		-	L.						⊴⇔
		10	Ь			De	notoo	100	BY : P.LG	Ψ[		$\Box$	₽		Be	eneteau 4	423		
		9.6	۳			ве	neteau	423		1		FH8 DRAW	NG		ŀ	Hull Harness	- 3C2T	F6	
		FH8 DRAWI	NG			H	Iull Harness	- 3C2T	F6		C remov	e 401-402-403		10/02	_	BENETE	U USA	Part No:	
с	remove 4	01-402-403-	> deck	10/02			BENETE	AU USA	Part No:			lawg to 10 awg		9/02	പ്പ	P.O. Drawer 1 Marion, SC 2	218	05907	4-C
в	143 14av	vg to 10 awg		9/02		Ъ	P.O. Drawer Marion, SC 2	9571	059074-C		A remov	e 270> dec	k	9/02	0	(803) 423-420	1	AUST BE AUTHORIZED BY	-
A	remove	270> deck	(	9/02	THIS	$\mathbf{\sim}$	(803) 423-420 NT IS - PROPRIETARY A		MUST BE AUTHORIZED BY BENETEAL DUCT MANUFACTURER.	-					DRAWN BY B	ENT IS - PROPRIETARY AN ENETEAU - SPECIFIED AN	ID DESIGNED BY PRO	DUCT MANUFACTURER.	DENETEAU
				1	DR/	AWN BY B	ENETEAU - SPECIFIED AI	ND DESIGNED BY PRC	DUCT MANUFACTURER.										

# **DECK HARNESS LAYOUT**

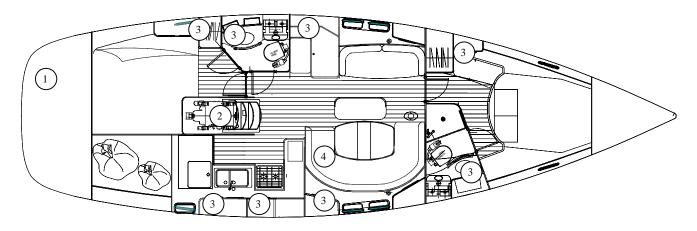


				1						401	16/2	R/B	2.600	105° Tinned		STBD salon FWD	reading light	
65	16/2	R B	11.700 8.900	10 Tin	)5° ined		FWD cabin ceilin	g fan		402	16/2	R/B	6.000		picked from 401	STBD salon AFT	reading light	_
600	16/2	R/B	10.500		t	picked from 65	FWD cabin ceilin	g fan		62	16/2	RB	8.850 6.650	-	switch on connector	STBD fwd bath	ceiling light	_
601	16/2	R/B	1.300			picked from 600	FWD cabin ceiling	g fan		64	16/2	R/B	2.250		picked from 62	STBD fwd bath c	eiling light	_
193	16/2	R/B	9.300			•	FWD cabin port fa	n		L4	16/2	R B	8.800 7.400	-	switch on connector	4 Cab version F	WD cabins passage ceiling	_
67	16/2	R/B	10.300				FWD cabin port re	ading light		68	16/2	R/B	5.200			STBD fwd bath	ink light	_
671	16/2	R/B	2.800			picked from 67	Port fwd bath sin	k light		272	16/2	R/B	4.700		Not by the panel	STBD salon sp	aker	_
271		R/B	8.400			Not by the panel	Port salon speak		-	190	16/2	R/B	4.500			STBD salon fwd	an	_
	16/2		8.200			Not by the parter	Port salon FWD fa		_	8	12/1	в	6.500			Common mast g	round	
191	16/2	R/B	9.900						_	4,5,6,7	14/1	R	6.500			Mast lights		
69	16/2	В	8.900 15.850	<b></b>		switch on connector	Port FWD bath c	eiling light	_	9	16/2	R/B	16.100			Compass light		-
57	16/2	R B	9.650				Port aft cabin ceil	ing light	_	60	16/2	R/B	15.800			12V outlet		-
53	16/2	R B	10.800 9.800	-		switch at connector	Port aft shower co	eiling light		98	16/2	R/B	16.800		Looped at connector	12V Navigation	instruments	-
55	16/2	R/B	11.000				Port aft cabin por	t reading light		10	16/2	R/B	17.000			Running light ,		-
195	16/2	R/B	10.900				Port aft cabin fan				16/2	R/B	13.150					-
530	2x1	R/B	9.900				Port aft shower si	ink light	_	50			1.00				port reading light	-
49	16/2	R/B	7.900				Fluorescent galle	у		501	16/2	R/N R	13.200		Picked from 50		bd reading light	-
43	16/2	R	7.900				Ceiling light salo		-	54	16/2	В	7.200			STBD aft cabin	ceiling light	-
47	16/2	B R/B	6.300 5.450			picked from43	Ceiling light salor		-	52	16/2	R/B	4.450			STBD aft cabin	Stbd reading light	_
46	16/2	R/B	3.000			picked from 47	Ceiling light salo	n	_	56	16/2	R B	7.350	-	switch on connector	STBD aft toilet	ceiling light	_
		R/B	2.900			picked from 46			_	194	16/2	R/B	4.250			STBD aft cabin f	an	_
44	16/2	R/D	8.500			picked from 46	Ceiling light salor		_	58	16/2	R/B	2.800			STBD aft toilet s	ink light	
48	16/2	в	6.900				Ceiling light salor		_	42	16/2	R B	3.900 2.300	-		Chart table red	ceiling light	-
483	16/2	R/B	2.000			picked from 48	Ceiling light salo	n table	_	274	16/2	R/B	1.500		Not by the panel	STBD cockpit	speaker	-
482	16/2	R/B	3.200			picked from 483	Ceiling light salor	n table		273	16/2	R/B	1.500		Not by the panel	Port cockpit sp	eaker	-
481	16/2	R/B	1.150			picked from 482	Ceiling light salo	on table		270	16/1	R	0.100		Not by the panel	Stereo memor	v	-
1	14/2	R/B	9.1000				Running light- bo	ow light		27	16/2	R/B	1.800			12V-Stereo		-
66	16/2	R/B	7.200		Ļ		Fwd cabin STBD	D reading light								401/01		-
192	16/2	R/B	6.800	10 Tir	05° nned		FWD cabin STBD	fan		279	16/1	R	0.100	+	Not by the panel	12V-Stereo ante	ากส	-
VHF	coax		8.300			NOTE	VHH coax			97	16/2	R/B	1.300	105° Tinned		12V-VHF radio		
WIRE. #	SIZE AWG	COLOR	L.(m)	Co	ode	NOTE	DES	IGNATION		WIRE.	SIZE AWG	COLOR	L . (m)	Code	NOTE	[	ESIGNATION	
R	DESCRIPTIC	0N	DATE	DIME	NSION:			Material:	VISA	R #	DESCRIPTIC	DN .	DATE	DIMENSION:	1	L	Material: VIS	5A
						TOL GEN :		DATE : 9/2/02	⊲⊕						TOL GEN :		DATE : 9/2/02	10
		Ð			Be	eneteau	423	BY: P.LG				5		P	eneteau	100	BY: P.LG	ιψ
	FH8	I NO			De	eck Harness -	3C2T	F6			<u> </u>	P		D	eneteau	423		
	DRAW	ING									FH8 DRAWI	NG		C	eck Harness -	3C2T	F6	
C Add C	Oax		11/6/02	_	R	BENETEA P.O. Drawer 12	18	Part No: 059073-0	c I						BENETEA	U USA	Part No:	
B Add 40			10/02	Ц	<u>e</u>	Marion, SC 29 (803) 423-4201			-	<u> </u>				⊳ఉప	P.O. Drawer 12 Marion, SC 29	571	059073-C	
				THIS I DRAV	DOCUME NN BY BE	NT IS - PROPRIETARY AND NETEAU - SPECIFIED AND	REPRODUCTIONS M DESIGNED BY PROD	UST BE AUTHORIZED BY BENE UCT MANUFACTURER.	TEAU	C Add C			11/6/02	THIS DOCUM	(803) 423-4201 ENT IS - PROPRIETARY AND	REPRODUCTIONS N	UST BE AUTHORIZED BY BENETE/	AU
										5 140			FO/ GE	DRAWN BY E	ENETEAU - SPECIFIED AND	DESIGNED BY PROD	DUCT MANUFACTURER.	_

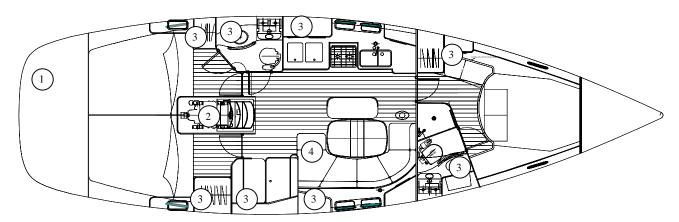
## LOCATION OF 110 / 220V SOCKETS AND APPLIANCES

REF	DESCRIPTION
1	Shore Power Inlet
2	Battery Charger
3	110/220V Outlet
4	Water Heater

#### 2 CABIN / 2 TOILET

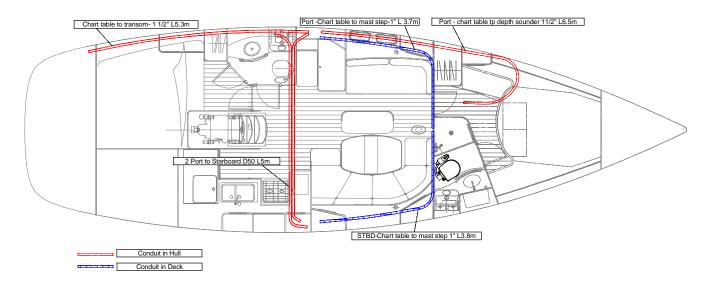


3 CABIN / 2 TOILET

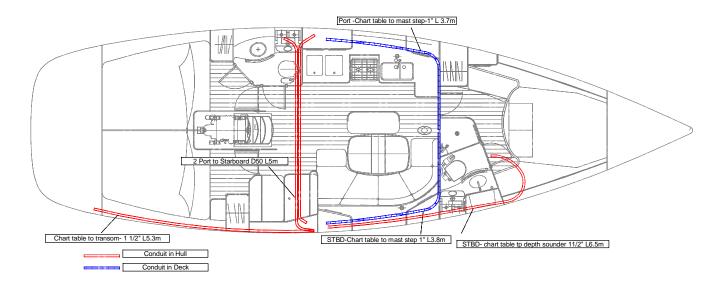


# LAY OUT OF THE CONDUITS

#### 2 CABIN / 2 TOILET



#### 3 CABIN / 2 TOILET



# XVIII) LP GAS SYSTEM

Gas Stove

The boat is delivered without a fire extinguisher. 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 the extinguisher aperture in the engine compartment, 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.

Do not install or store flammable materials above the stove (Curtains, papers, napkins, etc...)

Never leave the boat unattended when the LP gas appliances are in use.

The appliances, which use fuel, consume the oxygen within the cabin and release combustion products into the boat. It is necessary to ventilate the boat when using the gas cooking appliances. Do not obstruct the air vents of the boat.

Do not smoke or use an open flame when you are trying to locate a gas leak, change the gas bottle or work on the gas system.

If you smell gas or find that the burners have gone out by accident, (although appliance models cut off the gas automatically if the flames go out) turn off the gas valves and ventilate the boat in order to get rid of any residual gas. Find the cause of the problem before re-lighting the appliance.

Do not use cooking appliances to heat the inside of the boat.

Make sure that the burner valves are turned off before you turn on the 12V solenoid and the valve on the cylinder.

#### Turn off the 12V solenoid and the valve on the cylinder when you do not use the appliances.

Do not obstruct the access to the gas system components, in particular the access to the valves (cylinders and gas cooker).

The flexible hoses, which connect the gas cylinder at one end of the system and the stove at the other end, shall be changed in pursuance of the regulations in force in your country. Only use hoses, which meet the safety standards of your country.

Do not use the gas cylinder storage space to store other equipment.

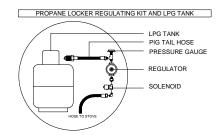
Pay particular attention to keep in good condition the screw thread of the cylinder on which the regulator is attached. Check the condition of the regulator every year and change it if necessary. Use a regulator identical to the one which is fitted.

Make sure that the valve of the empty cylinder is turned off and disconnected from the system.

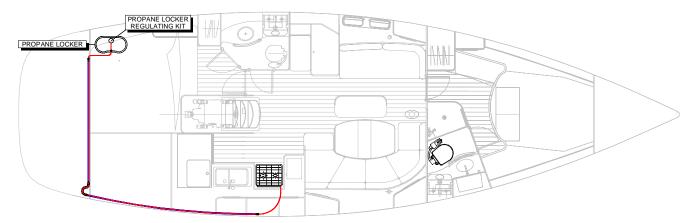
Do not use ammonia-based products to clean any part of the system or to discover a leak.

The LP gas system should be checked for leaks on a regular basis. See the manual provided with the stove for instructions.

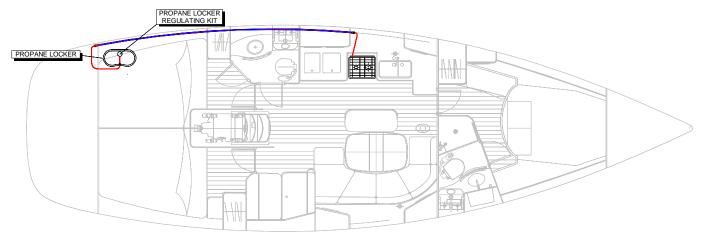
# LAY OUT OF THE GAS SYSTEM



#### 2 CABIN / 2 TOILET



#### 3 CABIN / 2 TOILET





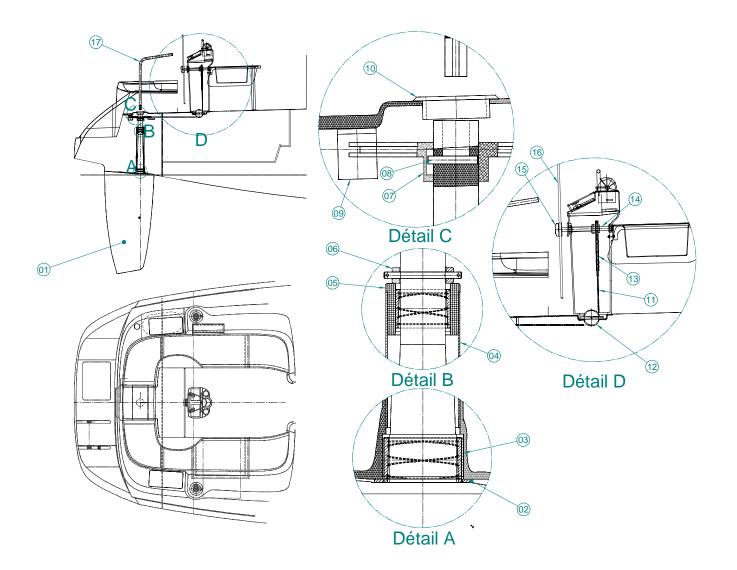
# XIX) STEERING SYSTEM

Your boat is provided with an emergency tiller for use if there is a failure in the wheel steering system.

Check at least once a year that the steering cables are properly tightened and lubricated.

To use the emergency tiller, remove the cover over the rudder stock by using a winch handle; insert the tiller into the socket on the rudderstock. You may remove the steering wheels while using the tiller, to improve the tiller handle clearance.

REF	DESCRIPTION	REF	DESCRIPTION
1	Rudder	10	Cap Over Rudder Stock
2	Spacer Ring	11	Steering Cable
3	Lower Rudder Shaft Bearing	12	Idler Sheave Box
4	Rudder Tube	13	Steering Chain
5	Upper Rudder Shaft Bearing	14	Steerer
6	Retaining Ring	15	Wheel Brake
7	Quadrant	16	Steering Wheel
8	Quadrant Pin	17	Emergency Tiller
9	Rudder stop		



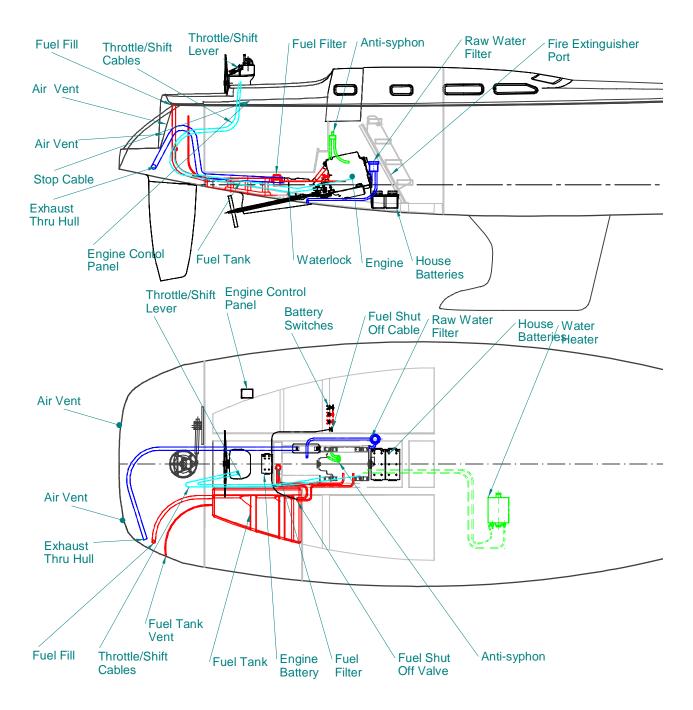
Stop the engine; and do not smoke while you are filling up the fuel tank.

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.

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.

# **ENGINE LAY OUT**



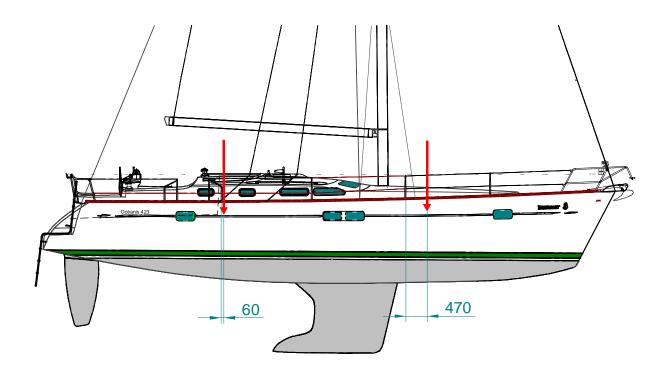
# XXI) HANDLING

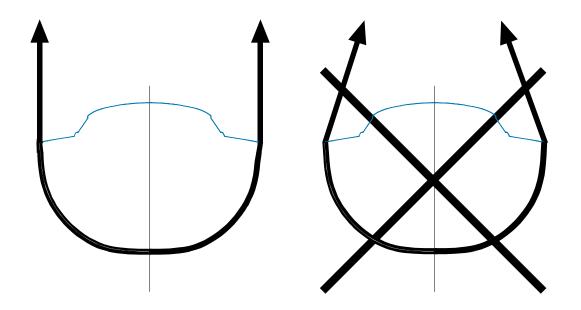
Contact your BENETEAU dealer for maintenance and repair of your boat. The dealer will advise properly, or will supply you with the spare parts you need or the materials that are suited to your boat.

Have your boat hauled & serviced once a year.

#### POSITION OF LIFTING STRAPS AND CRADLE POSITION.

**NOTE:** FWD POSITION DIMENSION IS FROM STANCHION AFT POSITION IS FROM THE FWD LEG OF THE GATE





# XXII) 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.

#### MINOR GEL COAT REPAIRS

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**

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 <u>nothing else</u>. 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.

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 everyday.

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.

# XXIII) 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.

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.

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.

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.

# XXIV) 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; therefore, help us to protect it and do not pollute it.