Dear Beneteau Owner,

It is with great pleasure that we welcome you to the family of Beneteau boat owners!

We sincerely hope that your new Beneteau will offer you, your family, and your guests many hours of pleasant and safe sailing.

Your support of our product is greatly appreciated, and we are confident that your new yacht will fulfill all your expectations of a finely crafted vessel.

Our dealer network, supported by our Customer Service Department, will gladly attempt to answer any questions and they will provide advice and guidance on any problems that you may have.

Once again, thank you, and we wish you as much pleasure sailing your boat as we had in building her for you.

Sincerely,

Annette Roux
Chief Executive Officer
Chantiers Beneteau, S.A., France

BENETEAU HISTORY

For more than a century, the Beneteau family has been building boats. In the beginning, we built commercial fishing boats that were as robust as the fisherman who sailed on them. These boats ventured out to sea no matter what the weather, because their owners relied on them for their livelihood. These craft were built to last; like today's Beneteau's.

At Beneteau the sea is at the roots of our family tree. This is a story of love, commitment and long-standing tradition. From my grandfather to his descendants who operate the company today, we have always been innovative. Yet despite this constant quest for innovation, we have always built boats that are strong. Times have changed, composites have replaced oak, sailing has become a sport, but the sea has remained unchanged, and the sea will always demand the best.

I have always remained true to my family's philosophy of building strength into our products. I will always strive to keep the edge that my ancestors gained on the rest of the boating industry. By giving free rein to innovative talents, constantly improving building techniques, testing every idea in the most severe conditions, our boats will continue to evolve and to improve.

When you are a leader you must show the way. As the world leader in sailboat building, Beneteau will continue to lead the way for pleasure boating in the future.

Annette Roux
Chief Executive Officer
Chantiers Beneteau, S.A., France

TABLE OF CONTENTS

1. 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 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. 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 but if this is your first boat, we hope this will prove useful.

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
(Warranty, Parts & Service Depts.)
1313 Highway 76 W
Marion, SC 29571
Tel (843)-629-5320
Fax (843)-629-5329

Beneteau USA Inc.
(Sales & Marketing)
410 Mill Street, Suite 101
Charleston, SC 29464
Tel (843)-629-5394
Fax (843)-881-1405

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

BENETEAU

2. ANTI-FOULING

The primary function of your Beneteau is to maximize yourboating pleasure. Your new Beneteau was made to last through weather and time. From the very beginning, great care has been taken in building you boat. Her molds have been designed and built to resist any deformation of her lines and meticulously maintained to guarantee a superior finish. This is very important because the mold is the cocoon from which your boat emerges.

Between the gel coat layer and the fiberglass laminate, Beneteau applied a nearly impervious Vinylester layer that will virtually eliminate the phenomenon of osmotic blistering in the fiberglass hull. This system is a development of the BWS (Beneteau Watershield System) which was designed and patented by our research laboratories and was first introduced in 1988 in our European operations. The addition of this product assures that the mechanical properties of your hull remain solid and it's life span greatly improved.

All materials used in the construction of your Beneteau are of the highest quality. Sampling of materials and operational standards are constantly monitored so that the structural design matches the engineered standard.

Beneteau USA takes great care in the manufacturing of fiberglass parts, as well as inthe control of raw materials and their applications. This coupled with the mastery of building techniques, allows Beneteau USA to offer you the most favorable 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 #400. (i.e., 400, 600, or 800)
3. Rinse with fresh water. **DO NOT USE DETERGENTS. DO NOT PRESSURE WASH.**
4. Apply anti-fouling to manufacturer's directions.

NOTE: It cannot be emphasized enough that thorough dewaxing must occur. Furthermore, if the gel coat is abraded with coarse sandpaper, the water imperviousness will be destroyed.

3. LIMITED WARRANTY

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

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

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

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

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

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

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

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

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

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

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

_____ Boat Model _____
Purchaser

_____ Hull # _____
Mailing Address of Purchaser

_____ Dealer _____
City State Zip

_____ Date _____
(Area Code) Telephone Number

3.1. WARRANTY/REGISTRATION PROCEDURES

3.1.1. Warranty Procedure

All Beneteau boats carry a one year limited warranty, as well as an extended hull and deck structural warranty (see 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 final delivery to you of your new Beneteau.

3.1.2. 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. Upon receipt of your completed and signed warranty form we will forward a new owners package directly to you.
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 regulations 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.

If you have any questions concerning this procedure please feel free to contact Beneteau Customer Service at (843)-423-6459.

3.1.3. Warranty Transfer

Your new Beneteau has a transferable, limited hull warranty 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.
410 Mill Street
Suite 101
Mt.Pleasant, SC 29464

3.2. 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:

On the aft starboard side, stamped into the hull, approximately 3 inches below the toerail, is your hull identification number.

The manufacturer's plate is located in the aft section of the cockpit. This plate gives boat model and identification number.

4. DEALER'S RESPONSIBILITIES

Your Beneteau Dealer is part of a worldwide distribution network, with dealers in 28 countries. As a Beneteau Dealer, he has certain obligations to you as our customer and to Beneteau as our representative. A Dealer's responsibility does not end with the sale of your boat. Your Dealer is responsible for the following:

- Deliver your new Beneteau to you complete as ordered in your purchase agreement.
- Preparation of your boat for commissioning by their personnel, another yard or by providing you with 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.
- Provideing customer support and 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.

5. OWNER'S/OPERATOR'S RESPONSIBILITIES

5.1. STATE REGISTRATION OR FEDERAL DOCUMENTATION

For State Registration please consult your Dealer or the State Marine Police, who can provide the correct governmental department handling registration in your state.

5.2. 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.

5.3. 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 Safety Hotline 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 U.S.C.G. 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."

5.4. 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.

5.5. 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.

5.6. 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 the 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. Carefull and regular inspection of moored boats on a regular basis is necessary to ensure the boat's safety.

5.7. 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.

5.8. 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
- Motion sickness pills
- Adhesive strips and tape
- Ammonia inhalants
- Antiseptic wipes
- Antiseptic germicide ointment
- Gauze bandages
- Zinc oxide ointment
- Sunscreen first aid/burn cream
- Insect/bee sting relief ointment/spray
- Sterile pads
- Cold packs for sprains
- Ace bandages & splints
- Scissors & tweezers

5.9. TOOL KIT

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

5.10. SPARE PARTS

A basic kit should consist of the following:

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

6. SAFE OPERATION AND WARNING LABELS

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

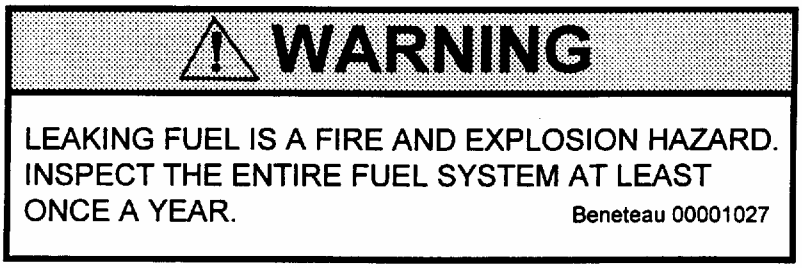
Do not venture out in weather or sea conditions beyond the skill or experience of the operator.

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

6.1. FUEL WARNING LABEL

- Affixed to the fuel tank.

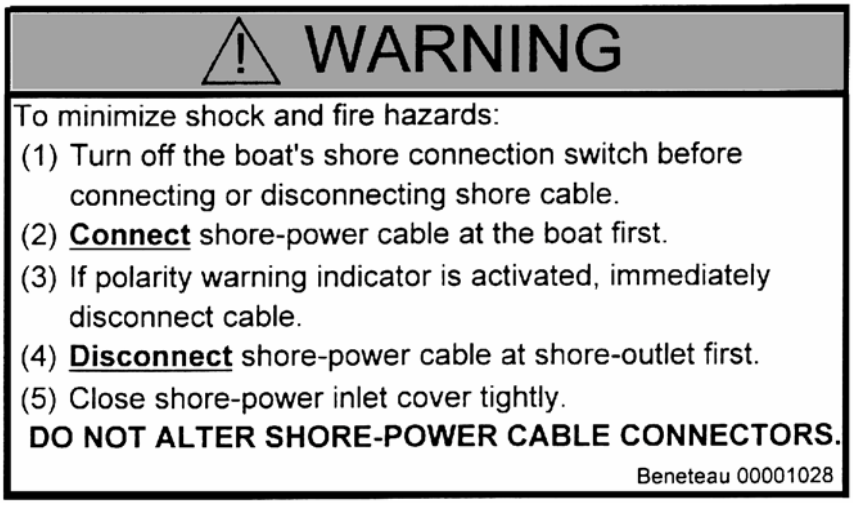
Beneteau Part #00001027



6.2. SHORE-POWER LABEL

- At the 110V distribution panel.

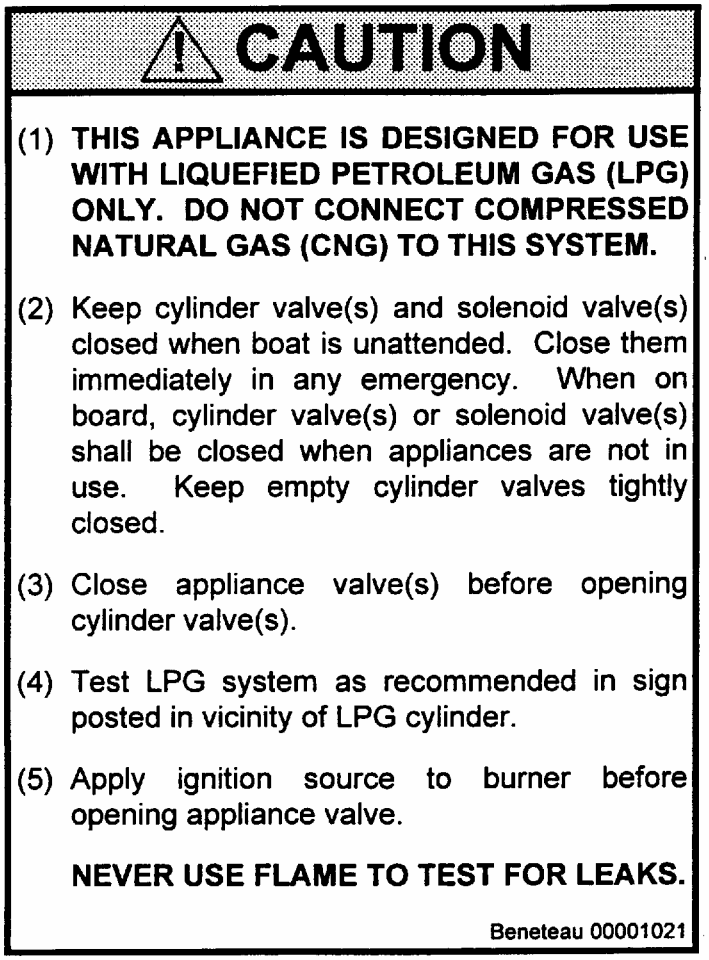
Beneteau Part #00001028



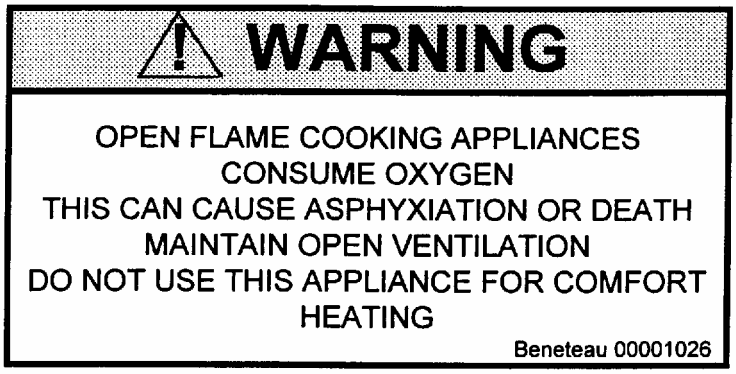
6.3. PROPANE LABELS

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

Beneteau Part #00001021

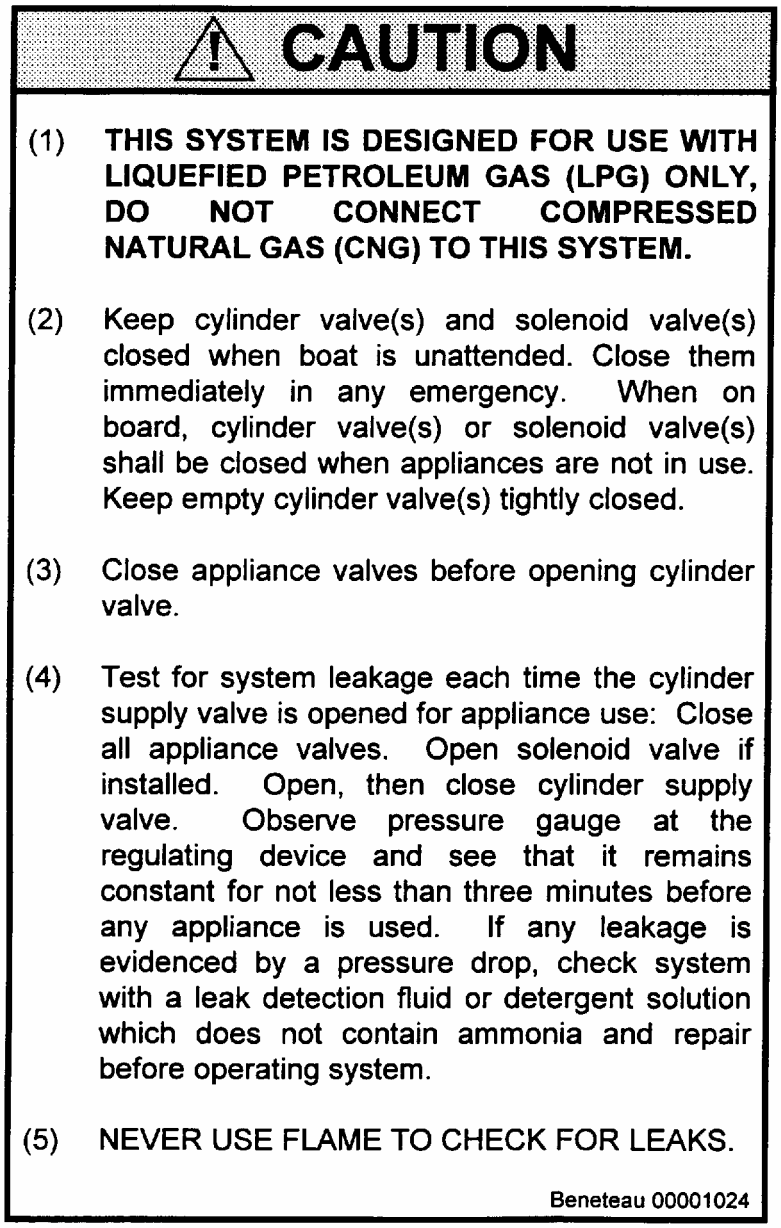


Beneteau Part #00001026



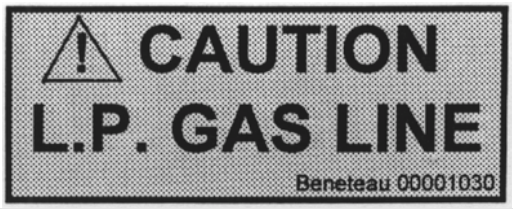
- In the propane locker affixed under the propane locker lid

Beneteau Part #00001024



- On or next to the LP Gas Line

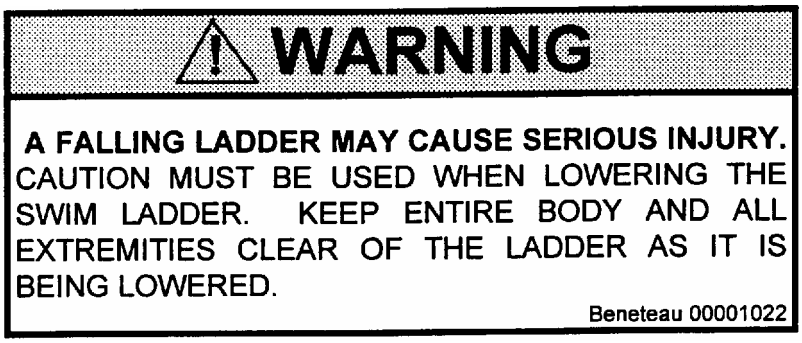
Beneteau Part #00001030



6.4. SWIM LADDER WARNING LABEL

- Located on the transom

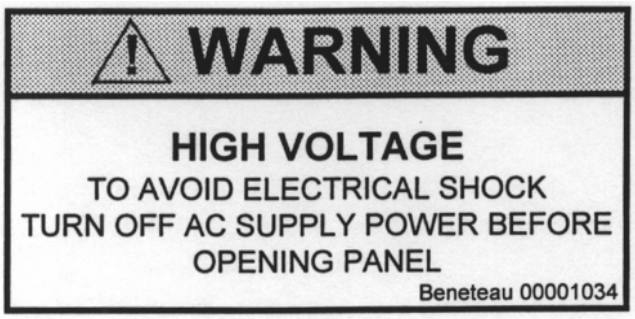
Beneteau Part # 00001022



6.5. HIGH VOLTAGE WARNING LABEL

- Located beside the 110v electric panel.

Beneteau Part #00001034



6.6. TRANSOM DOOR WARNING LABEL

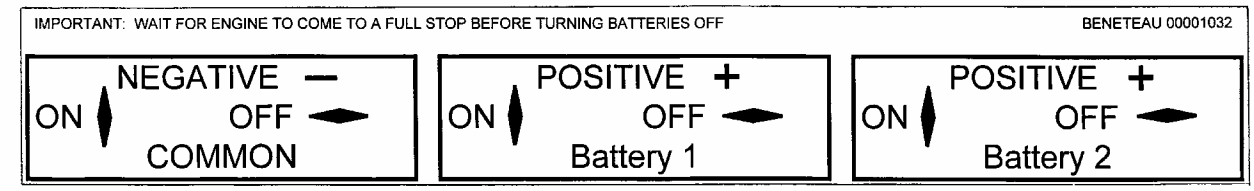
- Located on or next to the helmsman's seat.

Beneteau Part #00001031

6.7. STANDARD BATTERY SWITCH LABEL

- Located at the standard battery switches.

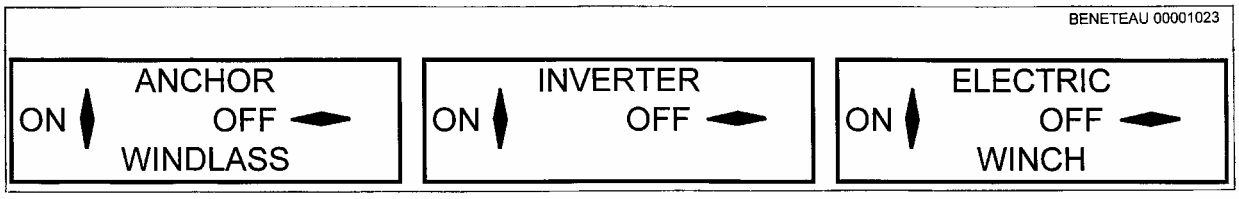
Beneteau Part #00001032



6.8. OPTIONAL BATTERY SWITCH LABEL

- Located at the optional battery switches

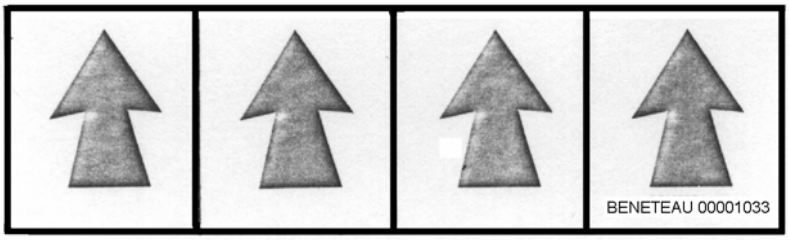
Beneteau Part #00001023



6.9. SLING LOCATION ARROWS LABEL

- Located at or near the hull to deck joint

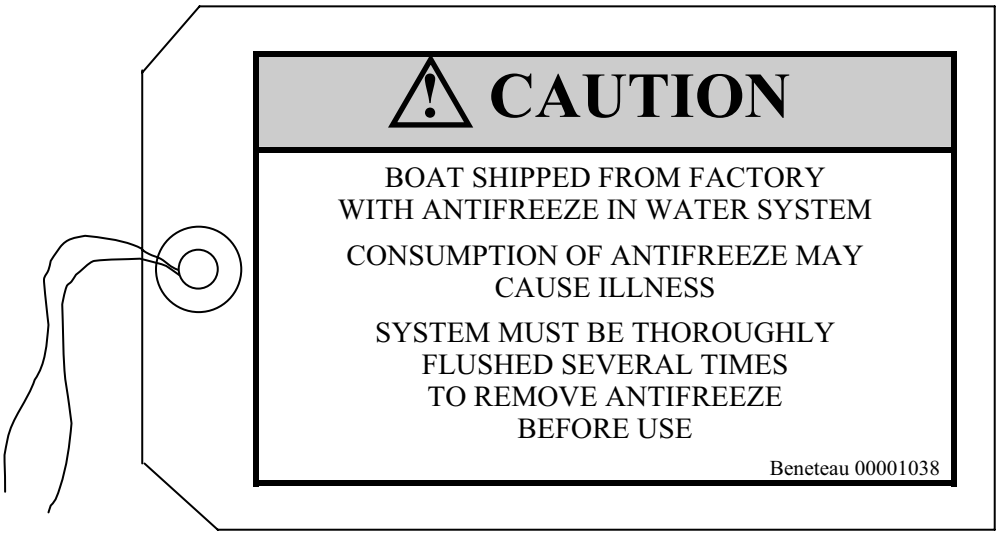
Beneteau Part #00001033



6.10. ANTI FREEZE CAUTION TAG

- Tied to the breaker for the water

Beneteau Part #00001038

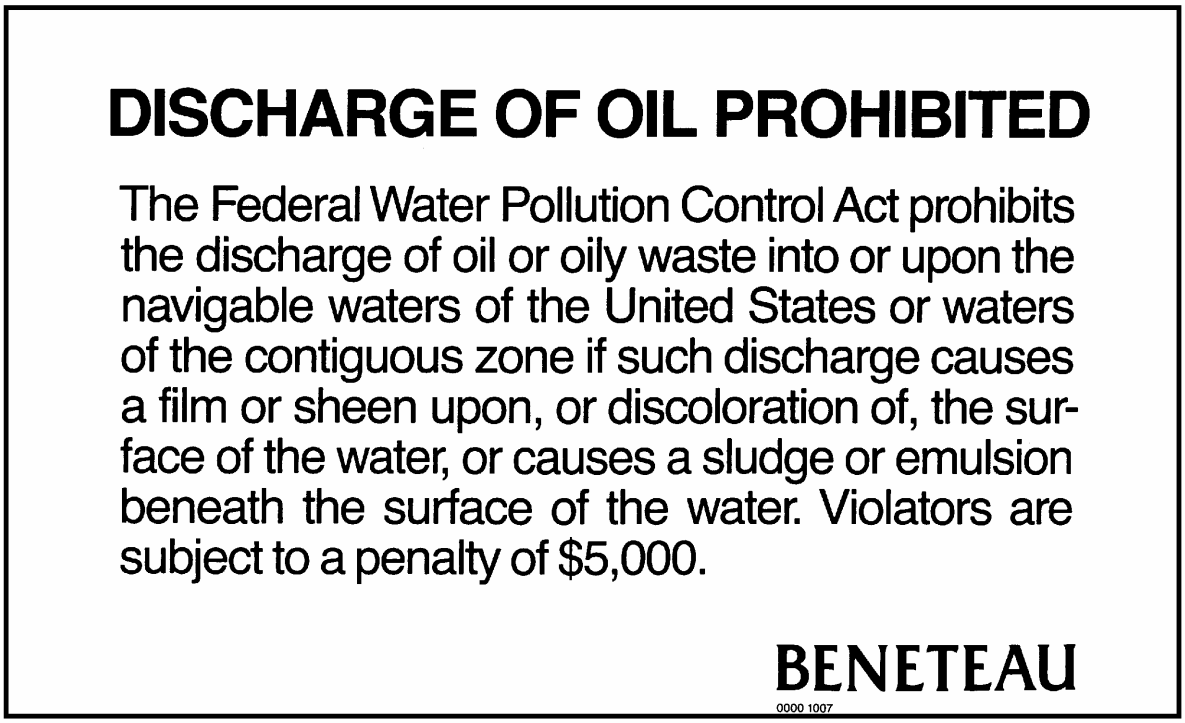


7. FEDERAL/STATE REGULATIONS

7.1. DISCHARGE OF OIL

- Located: under the sail locker lid.

Beneteau Part #00001007



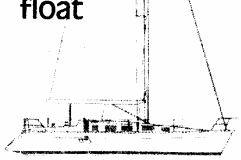
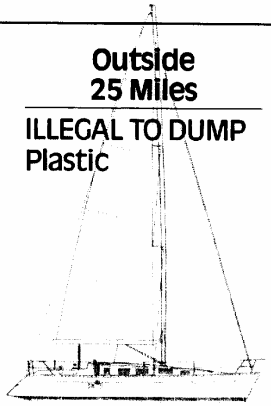
7.2. SOLID WASTE DISPOSAL

- Located under the sail locker lid.

Beneteau Part #00001025

It is illegal for any vessel to dump plastic trash **anywhere** in the ocean or navigable waters of the United States. Annex V of the MARPOL TREATY is an International Law for a cleaner, safer marine environment. Violation of these requirements may result in civil penalty up to $25,000, fine and imprisonment.

3 Miles from Shore	3–12 Miles from Shore	12–25 Miles from Shore	Outside 25 Miles
U.S. Lakes, Rivers, Bays and Sounds ILLEGAL TO DUMP Plastic & Garbage, Paper, Rags, Glass, Food, Metal, Crockery, Dunnage	ILLEGAL TO DUMP Plastic, Dunnage, lining & packing materials that float, also if not ground to less than one inch; Paper, Rags, Glass, Crockery, Metal, Food	ILLEGAL TO DUMP Plastic, Dunnage, lining & packing materials that float	ILLEGAL TO DUMP Plastic

State and local regulations may further restrict the disposal of garbage.

BENETEAU
00001025

7.3. 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.

8. 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
CREDIT CARD FAX: (304) 271-2415

9. 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."

10. COMMISSIONING

10.1. 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 commissioning procedure must be performed by Beneteau dealer personnel or those authorized by them. 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.

Complete lists of the pre-launch and post-launch checks employed during commissioning are provided in this section for those owners interested in understanding the decommissioning procedure, as well as for future use in any recommissionings that may be required after periods of wet or dry storage. The lists assume performance proffessionals and do not attempt to provide step-by-step instructions. Details of your yachts systems are available in section 13 of this manual and other manufacturers' instructions that are provided with the yacht.

The factory installed equipment, and items of responsibility that require attention by owner during commissioning are included in the list with the items marked with an asterisk (*), the owner installed equipment that require attention during commissioning are marked with a double asterisk (**).

10.2. * PRE-LAUNCH CHECKS

10.2.1. Hull Inspection

- Check topsides, decks, and all interior spaces for cleanliness and proper finish. Make certain that all foreign matter has been removed from the bilge areas, and check the following specific items:
- All thru-hull valves lubricated and closed, all hose clamps on all thu-hulls, shaft seals, bilge pumps, etc are tight.
- Propeller nut, retaining washer, and zinc properly installed and tightened.
- Shaft zinc installed if applicable.
- Steering gear and rudder operational and all bolts tight.
- Cutlass bearing in place and secured.
- Anti-fouling bottom paint applied.

10.2.2. Machinery Inspection

- Make an overall inspection of the machinery spaces. Ensure that they are free of loose material that might interfere with machinery operation, and then check the following items:
- Engine oil, transmission fluid, and coolant levels satisfactory.
- All electrical switches OFF.
- Batteries fully charged, tied down, connected; electrolyte at proper level.
- Installation of all equipment completed.
- All fuel and propane valves CLOSED.
- Adequate amount of fuel in tank.
- Check to be sure that the shaft coupler is attached to the transmission.
- Check filters: Bilge, shower-sump, fresh water, and engine raw water.

10.2.3. Before Stepping Mast

WARNING! MOVE YOUR BOAT TO A POSITION THAT IS CLEAR OF OVERHEAD WIRES OR OBSTRUCTIONS. ELECTROCUTION MAY RESULT FROM CONTACT WITH ANY OVERHEAD WIRES!!

- * Check the following items:
- Shrouds, stays, spreaders, installed and properly secured to mast.
- Check standing rigging for kinks or defects.
- Masthead lights, spreader lights, and mast-mounted instrument units operational.
- VHF antenna installed. (If applicable)
- All chafe points on mast properly taped.
- If the mast is keel stepped: check that the mast has been choked correctly and that the mast boot has been installed and sealed.

10.2.4. Equipment On Board

Check the following items:

- * Winch handles, emergency tiller, and bilge pump handles.
- ** Anchor and ground tackle.
- ** Dock lines and fenders.
- ** Safety equipment:
  1. Life preservers
  2. Throwable horseshoe or ring buoy

3. Horn
4. Emergency signals such as flares
5. Fire extinguishers

- ** Medical kit
- ** Spare parts and tool kit

10.3. * POST-LAUNCH CHECKS

10.3.1. Hull Inspection

- Make an overall inspection of the hull interior. Check bilge areas for evidence of major leaks near thru-hulls, and then make the following specific checks:
- Open all thru-hull seacocks. Check each valve and associated hoses, couplings, etc.
- Bleed the propshaft seal: The seal is water-cooled and must be vented. This is done by compressing the lip seal while pressing toward the propeller shaft. When water leaks out the seal has been air vented
- After the boat is rigged check and align the prop shaft.

10.3.2. Electrical Inspection

Make the following checks:

1. Check the 12-volt supply at the electrical panel with the battery switch in the #1, #2, and ALL positions.
2. Make an operational check of all DC circuits connected to the electrical panel.
3. Connect the shore power cable (follow shore power operation instructions in section 13), check the polarity indicator, close the main breaker, and make an operational check of the following items if installed:
   - Battery Charger
   - 110 volt outlets
   - Be sure the heater has fresh water in the tank and check the hot water heater
   - Inverter (if installed)
   - Other AC equipment

10.3.3. Machinery Inspection

The engine manufacturers authorized dealership or a marine diesel mechanic should complete the initial engine startup and check.

THE ENGINE MUST BE ALIGNED WITH THE FACE OF THE SHAFT COUPLING TO PREVENT EXCESSIVE WEAR AND VIBRATION OF THE DRIVE TRAIN

The alignment must be checked again after the boat has been rigged and tuned. A marine mechanic should complete engine alignment. The basic procedure is to:

1. Loosen the transmission to shaft coupling bolts enough to slide a feeler gauge between the coupling plates.
2. Measure the gap all around the coupling to ensure the gap is constant.
3. If the gap varies, raise or lower the corners of the engine at the engine mounts until a constant gap is achieved.
4. Re tighten the coupling bolts

Secure the yacht to a pier or dock with bow, stern, and spring lines and operate the engine at low speeds in neutral, forward, and reverse. Check:

- Throttle and shift controls
- Engine operation
- Alternator output
- Water temperature (See engine owner's manual for operating temperature range).
- Oil pressure (See engine manual).
- Check the fuel system for leakage.
- Re-check the propshaft seal for proper adjustment. Adjust if necessary. (See propshaft seal manufactures instructions)
- Install and check the operation of the emergency tiller.

10.3.4. Rigging and Sails

Check the following after mast is in place:

1. All standing rigging complete and in place, dockside tuning completed. (See section 13).
2. Mast boot installation completed.
3. All cotter pins in place and taped.
4. Running rigging in place.
5. Sails hoisted to check fit.

10.3.5. Fresh Water System

Check the following:

1. Water tanks full, no leaks at tank, fittings or vent hoses.
2. Pressure water system operational.
3. All faucets operational
4. Sinks and drains operational.
5. Hot water system operational.
6. All showers operational.

10.3.6. Head System

Check the following:

1. Head, holding tank, or other Marine Sanitation Devices operational.
2. Head intake and discharge hoses for leaks, Y-valve and discharge plumbing.

10.3.7. Galley

Check the following:

1. Check all propane pipes & hose fittings for leaks before lighting the stove.

   DO NOT TEST FOR LEAKS WITH AN OPEN FLAME, WIPE EACH JOINT WITH A SOAPY SOLUTION AND LOOK FOR BUBBLES

2. Galley stove operational.
3. Galley sink drains correctly.
4. Ice box drains correctly.
5. Check all water hoses, valves, connectors and thru-hulls for leaks.

10.3.8. Bilge

Check the electric and manual bilge pump for operation.

Check the electric bilge pump filter frequently for debris, the filter will fill rapidly during the initial period of sailing your new boat.

Check the shower sump pumps and filters.

11. 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 70 DEGREES F. (21 degrees C.).**
- **DO NOT USE PRESSURE EXCESS OF 2175 LBS/SQ. FT. (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.

11.1. GEL COAT

The gel-coat is vulnerable to any dents 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 not in the ventilating position; 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 repolished, 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.

11.2. MINOR GEL COAT REPAIRS

To fill in a scratch or small dent, 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.

11.3. 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 reassembly 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.

11.4. 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.

11.5. INTERIOR WOOD

The internal woodwork used in most of our boats yacht's 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 will be able to order Beneteau varnish. 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.

11.6. 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.

11.6.1. 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 nothing else. The level of acidity (i.e. the relative density of the electrolyte) should also be checked from time to time.

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

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

11.7. 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.

11.8. 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.

11.9. ENGINE

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

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

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

Inspect the engine mounts and coupling for loose bolts regularly.

Check the 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.

11.10. 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 sail damp.

12. 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.

12.1. 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.

12.2. 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 70° F. (21° C.)

MAXIMUM PRESSURE TO BE 2175 LBS./SQ. FT (150) BARS AT NO CLOSER THAN 4"

12.3. 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 propshaft seal after relaunching

12.4. ZINC

Replace the sacrificial zinc before relaunching the boat.

12.5. FRESHWATER SYSTEM

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

Caution! Be sure to use correct non-toxic antifreeze.

1. Allow the hot heater water 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.

12.6. 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.

12.7. ENGINE

Winterization by a marine mechanic is highly recommended to ensure that your engine is properly protected.

Consult the Engine Owner's Manual for your specific engine's guidelines for winterizing. Follow the instructions carefully to ensure the engine is adequately protected.

The general procedure is to replace raw seawater with an antifreeze solution mixed to protect the engine in your local area and to check the heat exchanger side to ensure that it contains an adequate antifreeze solution as well.

1. Prior to hauling the boat, run the engine to achieve normal operating temperatures in order to open the thermostat.
2. Close the raw water intake thru hull and remove the hose from the valve hose barb.
3. Insert the intake hose in a bucket of antifreeze solution and run the engine briefly until all raw water is flushed thru the exhaust system and only the antifreeze solution is expelled from the exhaust.
4. Be sure the thru hull valve is opened after the boat is hauled.

12.8. 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.

12.9. 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.

12.10. SEACOCKS

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

12.11. 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.

12.12. 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.

12.13. 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.

12.14. 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.

12.15. 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.

12.16. SAILS

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

12.17. MAST

The aluminum mast requires a minimum of care and maintenance. At the end of each season it should be washed with a mild detergent and water solution, followed

by a complete rinsing with fresh water. Tie off all halyards and lifts, and inspect the mast completely for scratches, cracks or stress marks. Apply paint or a clear lacquer to any scratches found to prevent corrosion. Consult your dealer or a marine rigger if any cracking or stressing of the aluminum tube is found.

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

12. SUPPLIER INFORMATION LIST

The following page lists our key suppliers in the United States. If you need information from a supplier not listed you may contact Beneteau's Customer Service Department in Marion, South Carolina at 1-843-423-6459.

Company Name	Contact Name	Product Name	Address	City	State	Postal Code	Phone Number	Fax Number	E-Mail Address
Adler/Barbour		Refrigeration	PO Box 925	Clinton	CT	06413-	(860) 664-4906	(860) 664-4907	www.kenyonmarine
Aqua Signal		Lights	1680 E. Fabyan Parkway	Batavia	IL	60540-	(603) 232-6425	(603) 232-9481	
Atwood		Water Heaters	4750 Hiawatha Dr	Rockford	IL	61103-1298	(815) 877-5700	(815) 877-7469	
Bass Products		Electrical Panels	50 Grove Street	Salem	MA	01970-	(508) 744-7003	(508) 744-4844	
Chesapeake Canvas	Donna	Cushions	922 Klaking Road	Annapolis	MD	21403-	(410) 263-8300	(410) 267-0174	
Doyle Sails	Andy Watts	Sails	Six Crossroads	St. Philips, Barbados	WI		(246) 423-4600	(246) 423-4499	doyle@caribnet.net
Exide Batteries	Detrich Epps	Exide/Fulman Batteries	201 Corporation Park Blvd	Columbia	SC	29233-	(803) 786-7050	(803) 735-3170	www.exideworld.com
Facnor SA	see JSI	Facnor Furling Units	Parc d Activites, B.P. 222	50550 SAINT-VAAST-LA-HOUGUE	FRANCE		011-33-2-33-88-50-22	011-33-2-33-88-50-22	
Force 10		Stoves	23080 Hamilton Road	Richmond,	VA		(800) 663-8515	(604) 522-9608	www.force10.com
Harken		Harken Blocks	1251 East Wisconsin Ave.	Pewaukee	WI	53072-	(414) 691-3320	(414) 691-3008	www.paw.com/sail/harken
Isomat/Sparcraft	Jim Kulibert	Isomast Spars	1031 Amble Drive	Charlotte	NC	28206-	(704) 596-9449	(704) 597-7503	Sparcraft.com
ITT Jabasco		Toilets, Pumps	1485 Dale Way	Costa Mesa	CA	92626-	(714) 545-8251	(714) 957-0609	www.jabsco.com
JSI		Cushions	3000 Gandy Blvd.	St. Petersburg	FI	33702-	(813) 577-3220	(813) 576-1306	www.jsisail.com
Lewmar - CA	Bob Davison	Lewmar Hardware	2439 West Coast Highway #201A	Newport Beach	CA	92663-	(714) 650-3366	(714) 650-7877	
Lewmar - Fl	Neil Harvey	Lewmar Hardware	9203- 130 Ave North	Largo	FL	33773-	(813) 588-2580	(813) 581-6300	
Marine Development		Battery Charger, Air Condition	P.O. Box 15299	Richmond	VA	23227-	(804) 746-1313	(804) 746-7248	
Morse Control		Shifter Cables	21 Clinton St.	Hudson	OH	44236-	(216) 653-7702	(216) 563-7799	
Neil Pryde Sails	Tim Yourieff	Sails	50 Broad Street	Milford	CT	06460-	(203) 874-6984	(203) 877-7014	www.paw.com/sail/neilpryde
Perkins Hot Line		Perkins Engines					(888) 737-5364		
Perko		Lights	P.O. Box 6400 D	Miami	FL	33164-	(305) 621-7525	(305) 620-9978	
Profurl	Mark Reuther	Profurl	401 N.E. 8th Street	Ft Lauderdale	FL	33304-	(800) 272-9511	(305) 763-8790	104200.666@Compuserve.Com
PYI		Whitlock Steering, Max Prop, PSS Shaft Seal	PO Box 536	Edmonds	WA	98020-	(206) 670-8915	(206) 670-8918	75032.1023@Compuserve.Com
Racor		Fuel Filter	P.O. Box 3208	Modesto	CA	95353-	(209) 521-7860	(209) 521-3278	
Raytheon Marine	Talbot Pratt	Autohelm	46 River Road	Hudson	NH	03051-	(603) 881-5200	(603) 881-4756	www.raymarine.com
Scandvik		Sinks	980 36th Ct, SW	vero Beach	FL	32961-	(800) 535-6009	(407) 567-9113	
Seaward Products*		Hot Water Heaters	P.O. Box 566	La Puente	CA	91745-	(301) 699-7997		
Seco South	John Edwards	Running Rigging, Standing Rigging, Lifelines	2050 34th Way	Largo	FL	33771-	(813) 536-1924	(813) 539-6314	
Shurflow		Pumps	12650 Westminster Ave.	Santa Ana	CA	92706-2100	(800) 854-3218	(714) 554-4721	www.shurflow.com
Simpson Lawrence		Frigoboat Refrigeration, Plastimo, Windlasses	6208-28th street East	Bradenton	FL	34203-4123	(800) 946-3521	(813) 746-7166	slusa.com
Southcoast Marine		Stainless Steel Rails & Fitting	12550 47th Way North	Clearwater	FL	34622-	(813) 573-4821		
Spectrum Color		Custom Match Gel Coat	1410 37th Street N.W. Suite F	Auburn	WA	98001-	(206) 735-1830	(206) 735-3745	www.spectrumcolor.com
Todd Enterprisees		Water and Fuel Tanks	530 Wellington Ave.	Cranston	RI	02910-	(401) 467-2750	(401) 467-2650	
Tops-N-Quality*		Stainless Steel Rails	P.O. Box 148	Marysville	MD	48040-	(313) 364-7150	(313) 364-7925	
Trace Enginering		Trace Inverters	5916 195th NE	Arlington	WA	98223-	(360) 435-8826	(305) 435-2229	www.traceengineering.com
Vetus	Leo VanHemert	Water Muffer, Anti-Siphion Value	PO Box 8712	Baltimore	MD	21240-	(410) 712-0740	(410) 712-0985	Vetus@AOL.COm
Volvo		Volvo Engines (Dealer Locator Number)					(800) 522-1959		
Welborn Marine	Max Hazelwood	Goiot Parts	1170 N.E. Cleveland Street	Clearwater	FL	34615-4836	(813) 445-9647	(813) 446-8800	MAXONE@AOL.COM
Yanmar		Yanmar Engine	2365 Route 22	Union	NJ	07083-	(908) 964-0700	(908) 964-5032	engcity@eclipe.net

WARNING

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

This manual is only a general maintenance guide, and it is not intended as an instructional manual on safety and seamanship. The safety and security of your boat or its passengers is solely the responsibility of the owner and/or the operator of the boat. To those not specifically familiar with any particular part of the boat or piece of boating gear, you 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 and professional instruction in your area.

13.3. FUELING

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

13.3.1. Before Fueling

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

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

13.3.2. Fueling

The diesel tank is filled thru a deck filler plate located on the stb. side of the swim platform (green cap deck filler).

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

Gauge markings:	1/4	1/2	3/4	F
Note: (number of gallons per mark)	X	X	X	X

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

13.3.3. After Fueling

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

Check below decks for presence of fumes or fuel leakage. Check bilge, engine

space, and main cabin.

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

Open all hatches and ports to ventilate the boat.

Switch on battery.

The engine should be started only when it is certain that no potentially hazardous condition exists.

13.3.4. Fuel Sanitation

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

13.3.5. Bacterial Contamination

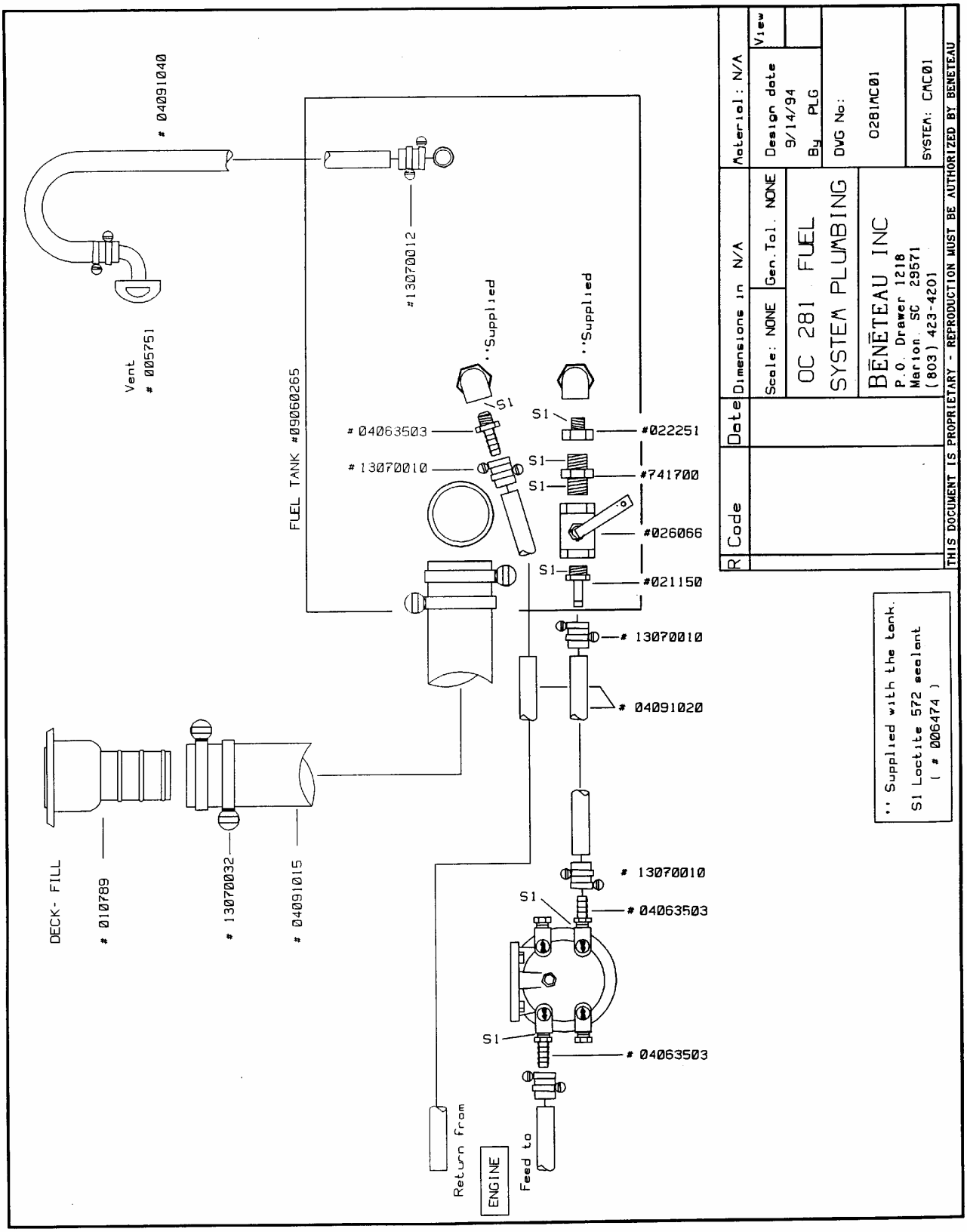
A factor that can cause additional problems is bacterial contamination of the diesel fuel. The bacteria involved need both water and fuel to exist, and if present, will thrive in a fuel tank. As they multiply, they form a filter-choking brown slime. Often their presence will not be known until rough weather churns up the fuel tank causing clogged filters at a most inopportune time.

Keeping water out of the fuel will, of course, prevent the problem entirely, and while every effort should be made towards this, such as obtaining fuel from reputable dealers, it must be remembered that a certain amount of water due to normal condensation in the tank is to be expected.

13.3.6. Fuel Additives

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

13.3.7. Fuel System



13.4. STEERING SYSTEM

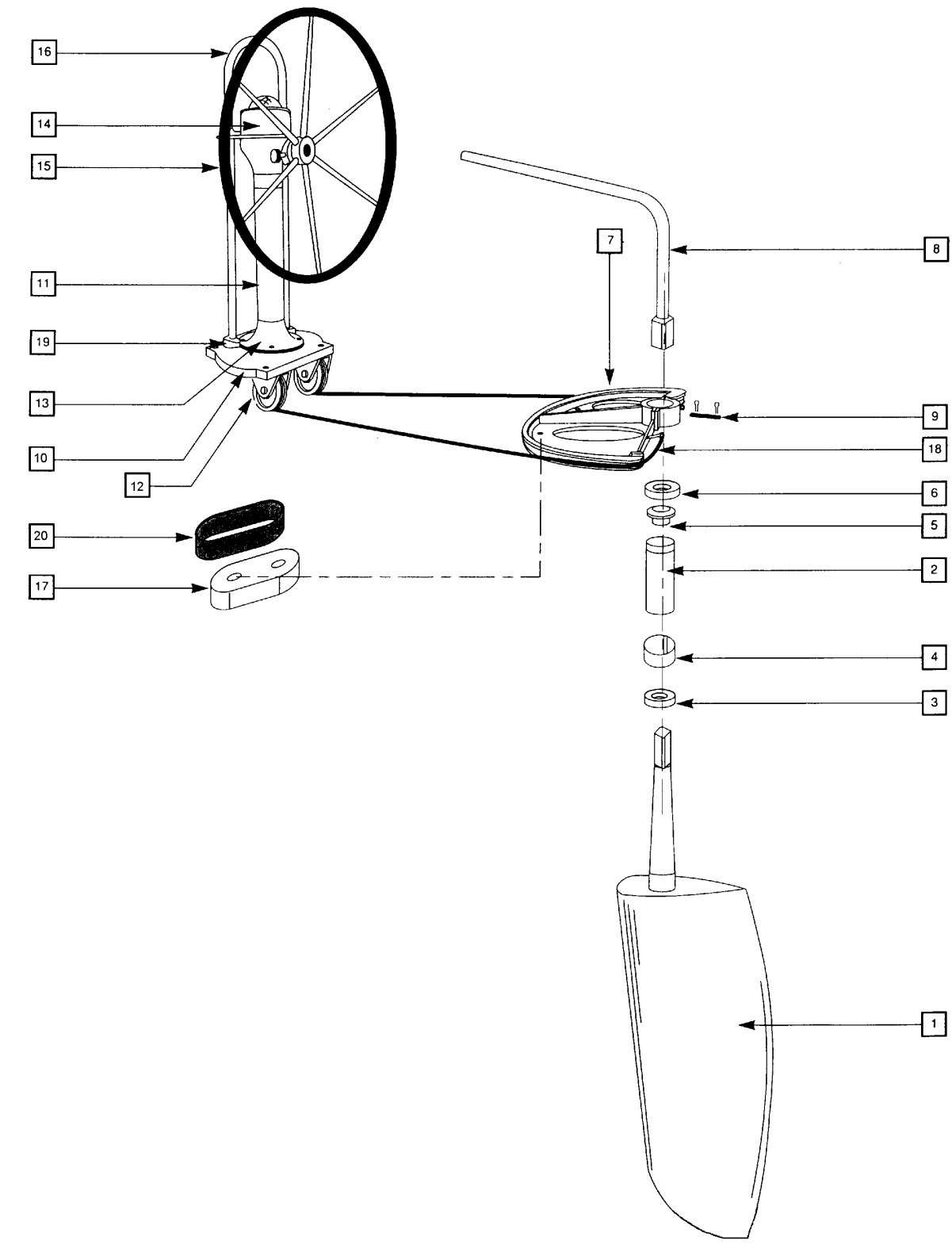
Wheel steering has become increasingly popular over the years in lieu of a tiller. Reasons for this preference include more cockpit space, and ease of steering over a long cruise.

13.4.1. Wheel Steering

Wheel steering remotely turns the rudder on your boat using a quadrant bolted to the rudder post and connected to the wheel through a chain and cable system. A stop assembly allows approximately 90 degrees of travel, and prevents rudder over-travel which could damage the cable and chain assemble. The type of pedestal steering system installed is a Whitlock 400.

13.4.2. Wheel steering installation

1. Rudder
2. G.R.P. Epoxy Pipe
3. Equilibrium ring
4. SS Ring PYD
5. Nylon Shoulder Bearing
6. SS Washer
7. Bored Quadrant
8. Emergency Tiller
9. Pin D12x150 + 2 Split Pins
10. Steering Wheel Support
11. Pedestal Steering + Brake
12. Pedestal Sheave Plate
13. Steering Gear Chain
14. Compass Support Plate
15. Steering Wheel
16. Compass Protection Guard
17. Quadrant Stop
19. Steering Cable
19. Compass Protection Rail Base + Bolts
20. Rubber Sleeve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13.4.3. Wheel Steering Operation

Wheel steering requires use in order to obtain familiarity with it. A feel for your boat will develop and a sensitivity to conditions will increase your control.

NOTE: When backing under auxiliary power in reverse gear, it is necessary to maintain a hold on the steering wheel the entire time. The rudder and steering wheel have a tendency to rotate with force if left unattended while backing. This is due to the normally large area aft of the rudder post becoming the forward area, thus creating an imbalance.

The rudder stop system is designed to produce a positive stop to prevent over-turning the mechanisms of the steering system. It is not designed to absorb the potentially tremendous load of a rudder turning freely while backing. INSPECT the rudder stops on a regular basis to ensure they limit rudder travel to the correct amount, failure to limit rudder play may result in steering failure!

CAUTION! ALLOWING THE RUDDER AND WHEEL TO SPIN OUT OF CONTROL WHEN BACKING MAY CAUSE SERIOUS DAMAGE TO THE STEERING SYSTEM, POSSIBLY RESULTING IN A DANGEROUS LOSS OF STEERING CONTROL.

When leaving the boat at a mooring or slip, make sure the wheel brake is properly tightened. Do not allow the system to free wheel as excessive wear or damage may result.

13.4.4. Emergency Tiller

As a safety precaution on your Beneteau, an emergency tiller has been provided as a backup to the wheel steering system. Remove the deck plate with a winch handle and slip emergency tiller into top of rudder post.

NOTE: PRACTICE USING THE EMERGENCY TILLER AND BE SURE ALL CREW MEMBERS KNOW THE LOCATION AND OPERATION OF THE EMERGENCY TILLER.

13.5. FRESH WATER SYSTEM

13.5.1. General Description

The fresh water system supplies the galley sink, head wash-basins, head showers and the transom shower. The water is drawn from the tanks via an electric pump and distributed to the hot and cold water systems thru tank selector switches and a manifold. Take care not to run an electric pump with an empty tank, as this will ruin it beyond repair.

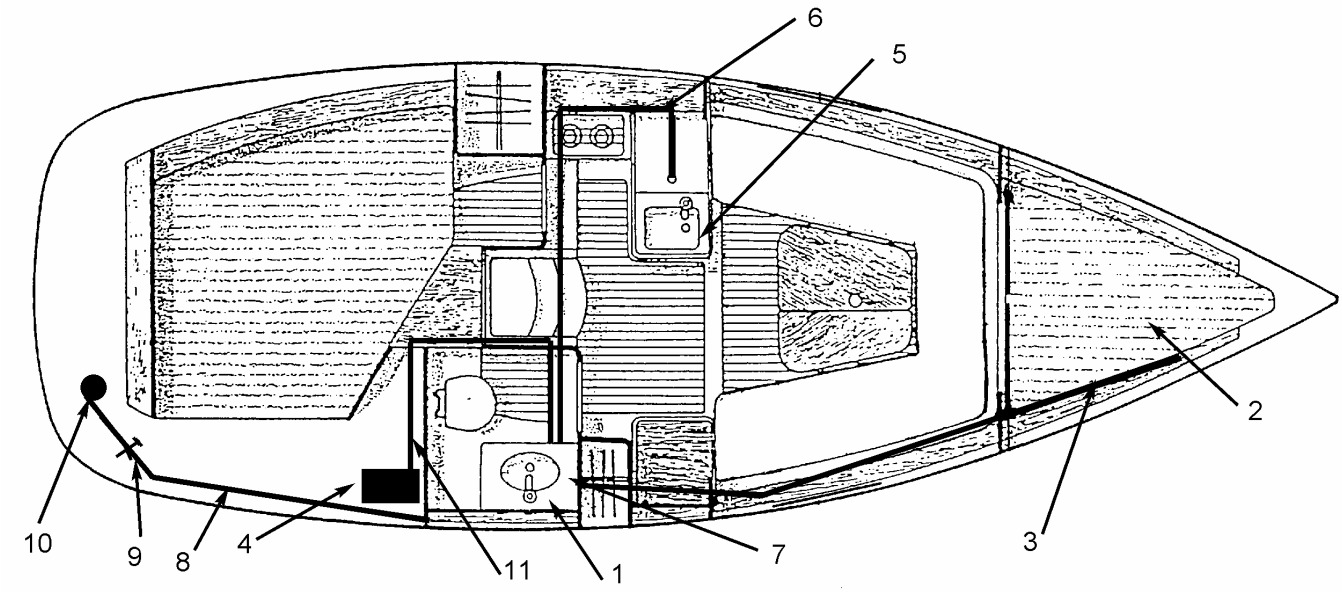
13.5.2. Operation.

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

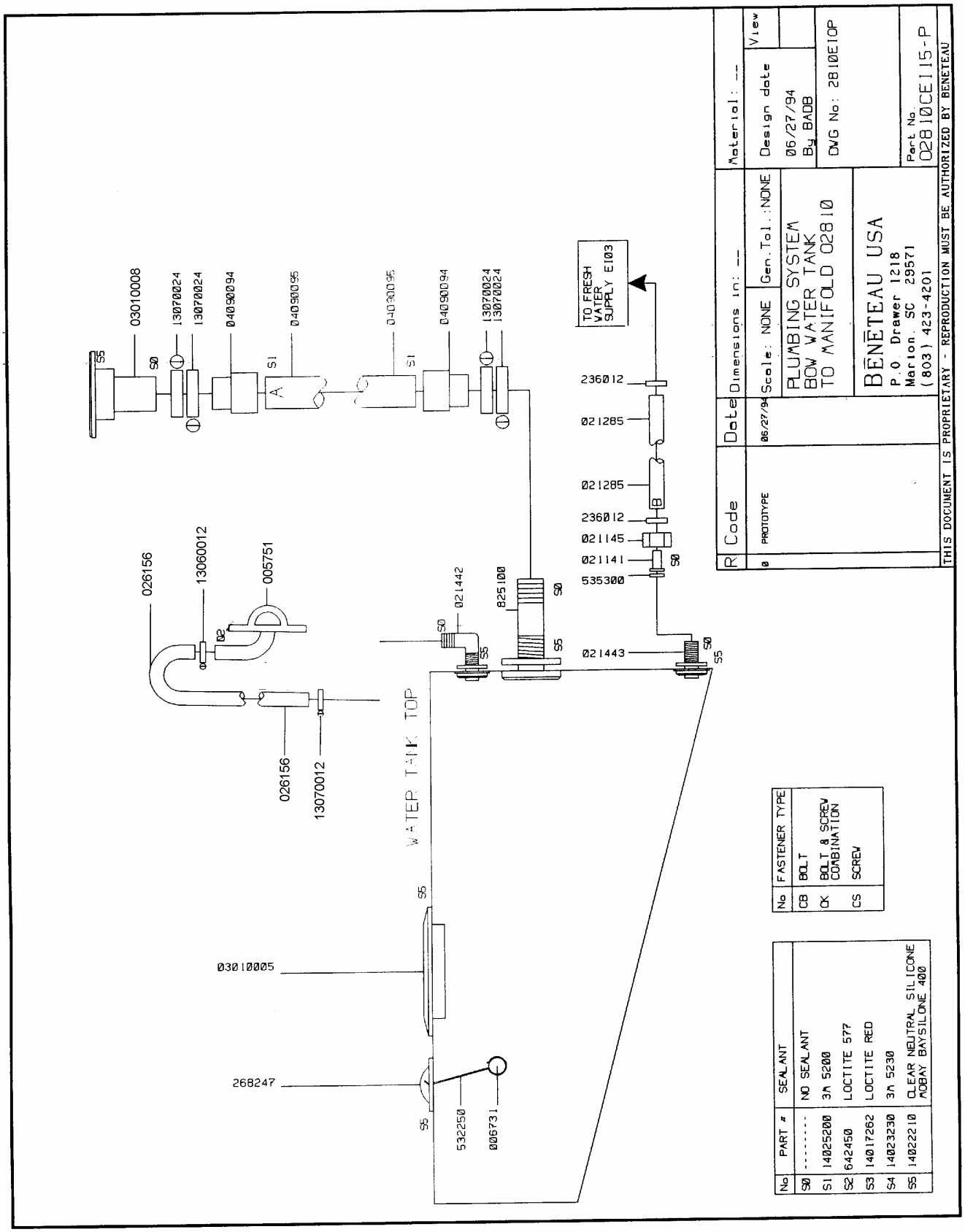
- Never top up with water and diesel at the same time if the filling points are close to each other, to avoid the risk of contaminating one liquid with the other.
- Similarly, avoid risk of contamination by never handling a product that might cause pollution close to the deck fill while taking on water.
- If unused for a long time, the tanks and pipes need to be flushed with a solution of acetic acid (solution of vinegar and water).
- The sink and wash-basins are drained through their own through-hull valves; these should be kept closed when the fresh water system is not in use.

13.5.3.Fresh Water Drawings

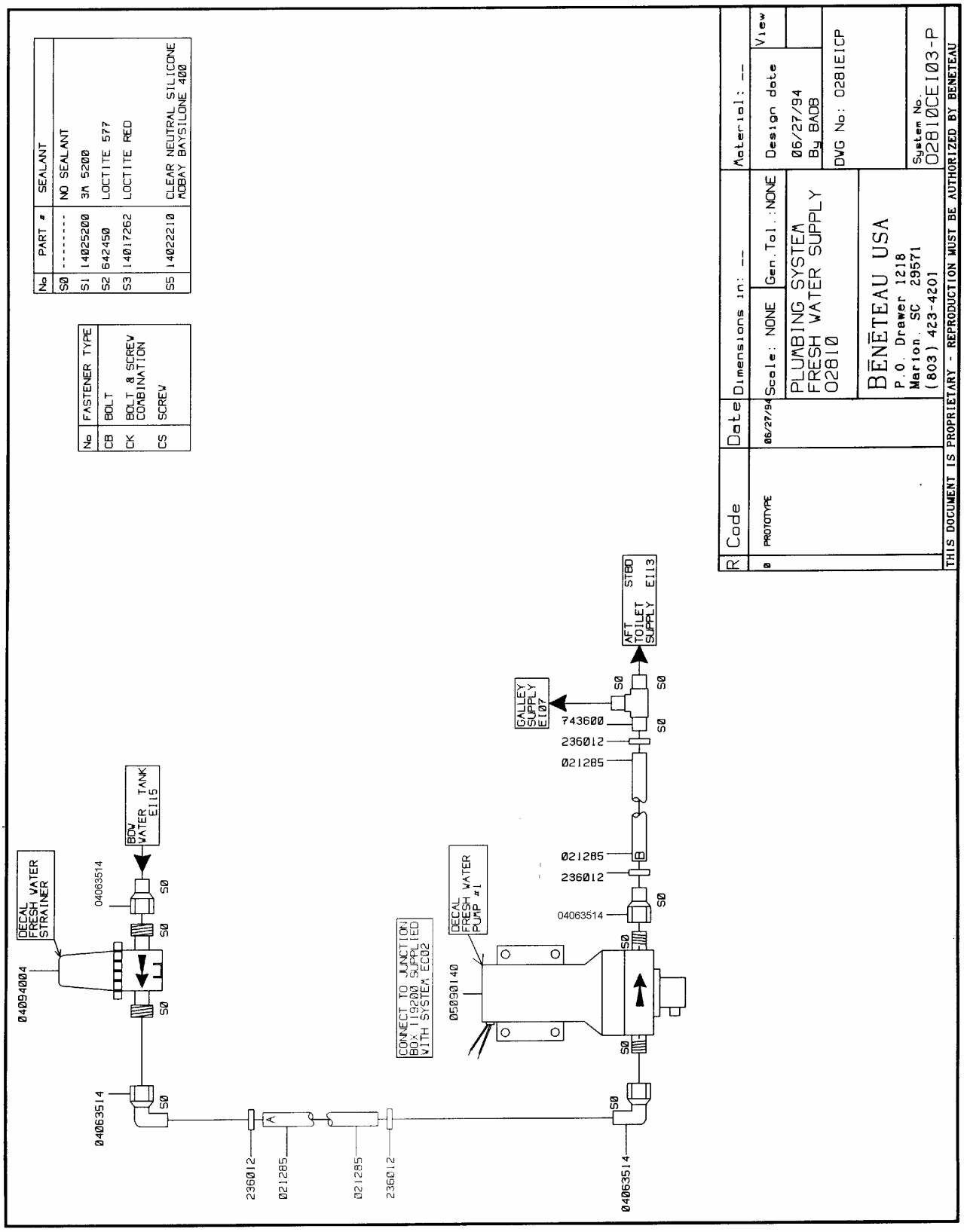
1. Pump House (Under sink)
2. Fwd Water Tank
3. Fwd Water Tank Supply Line
4. Hot Water Heater
5. Galley Sink
6. Galley Sink Supply Lines
7. Head Sink & Shower
8. Transom Shower Supply Line (option)
9. Transom Shower Valve (option)
10. Transom Shower (option)
11. Hot Water Heater Supply Line



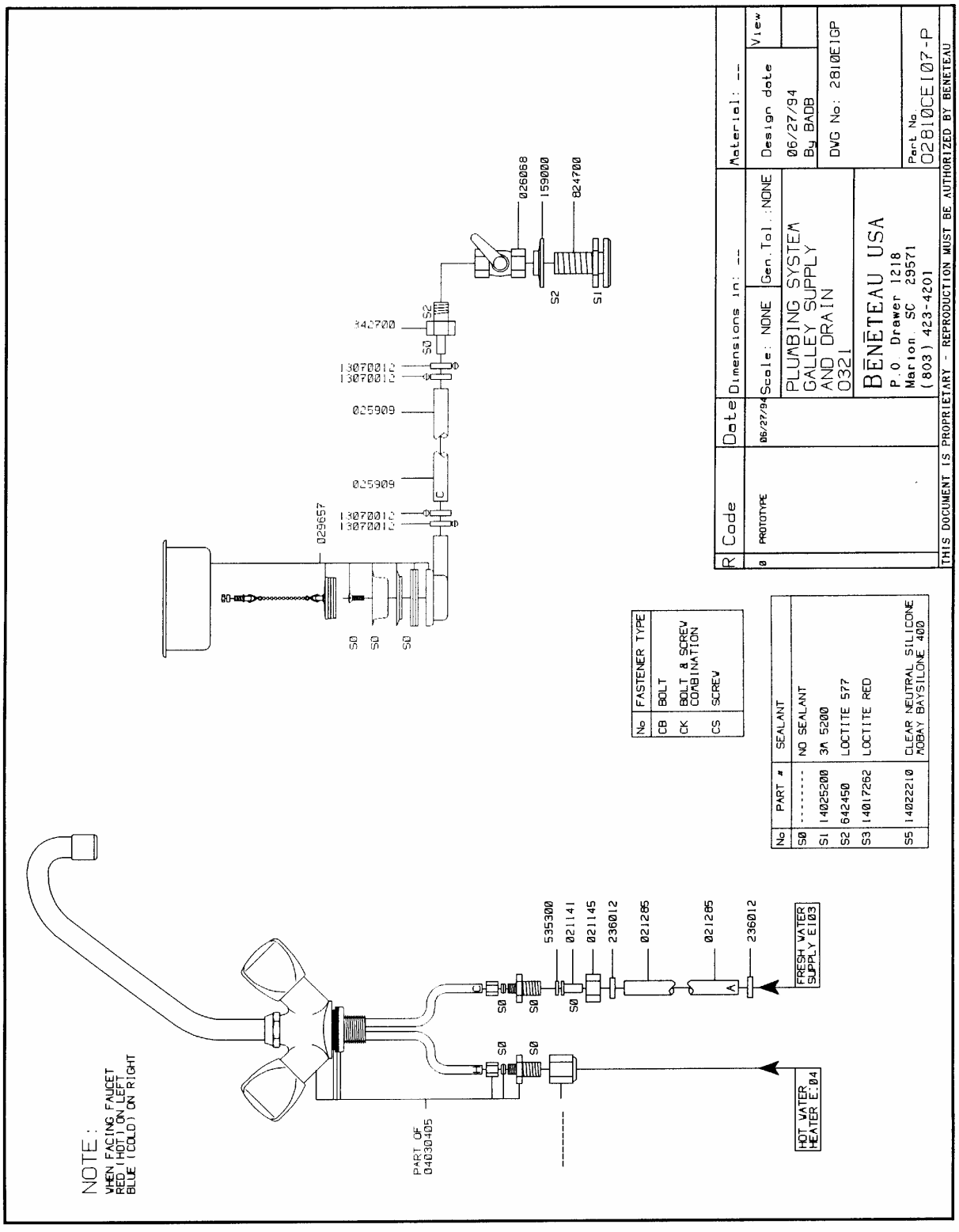
13.5.3.1. Water Tank Pickup



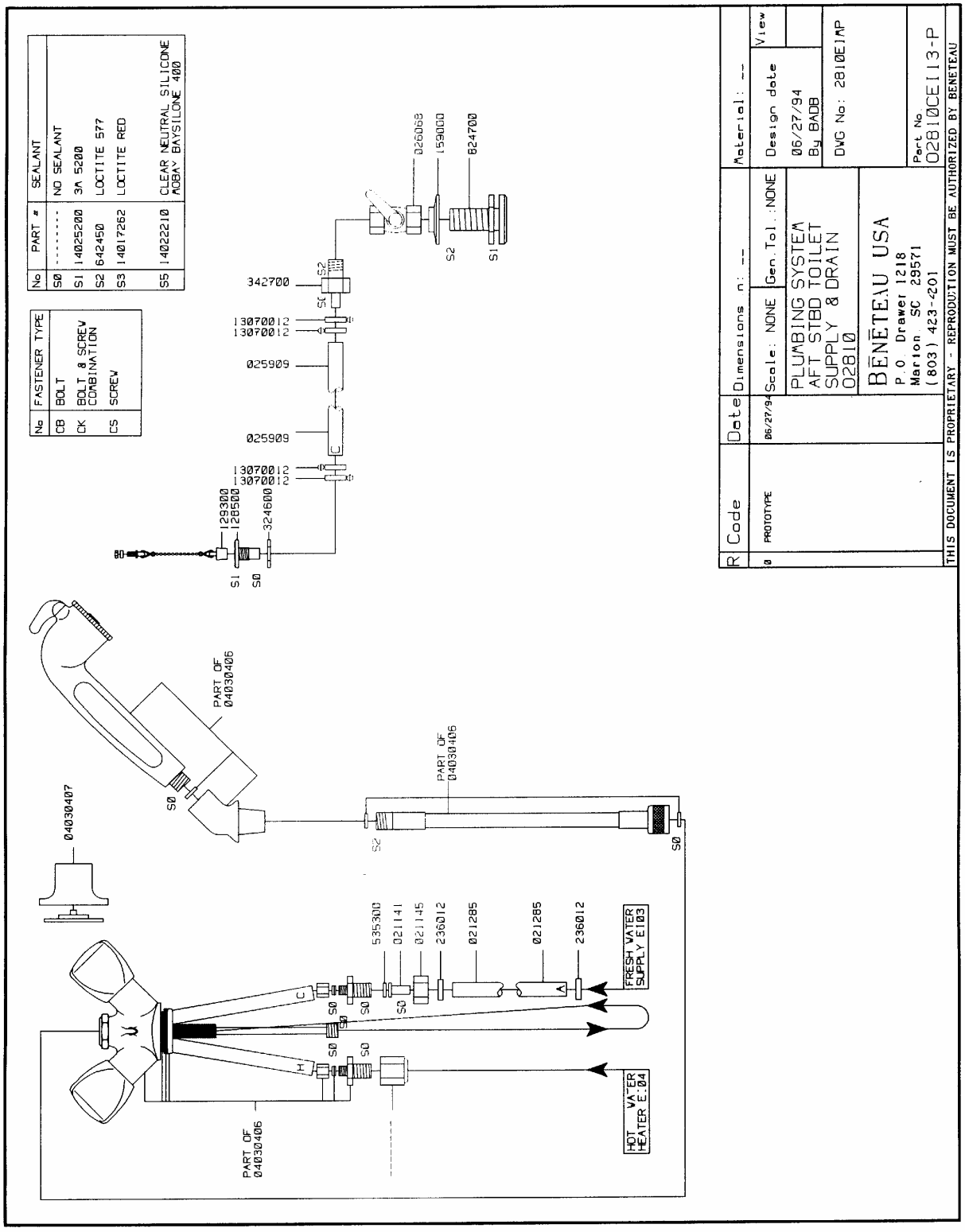
13.5.3.2. Pump House Plumbing



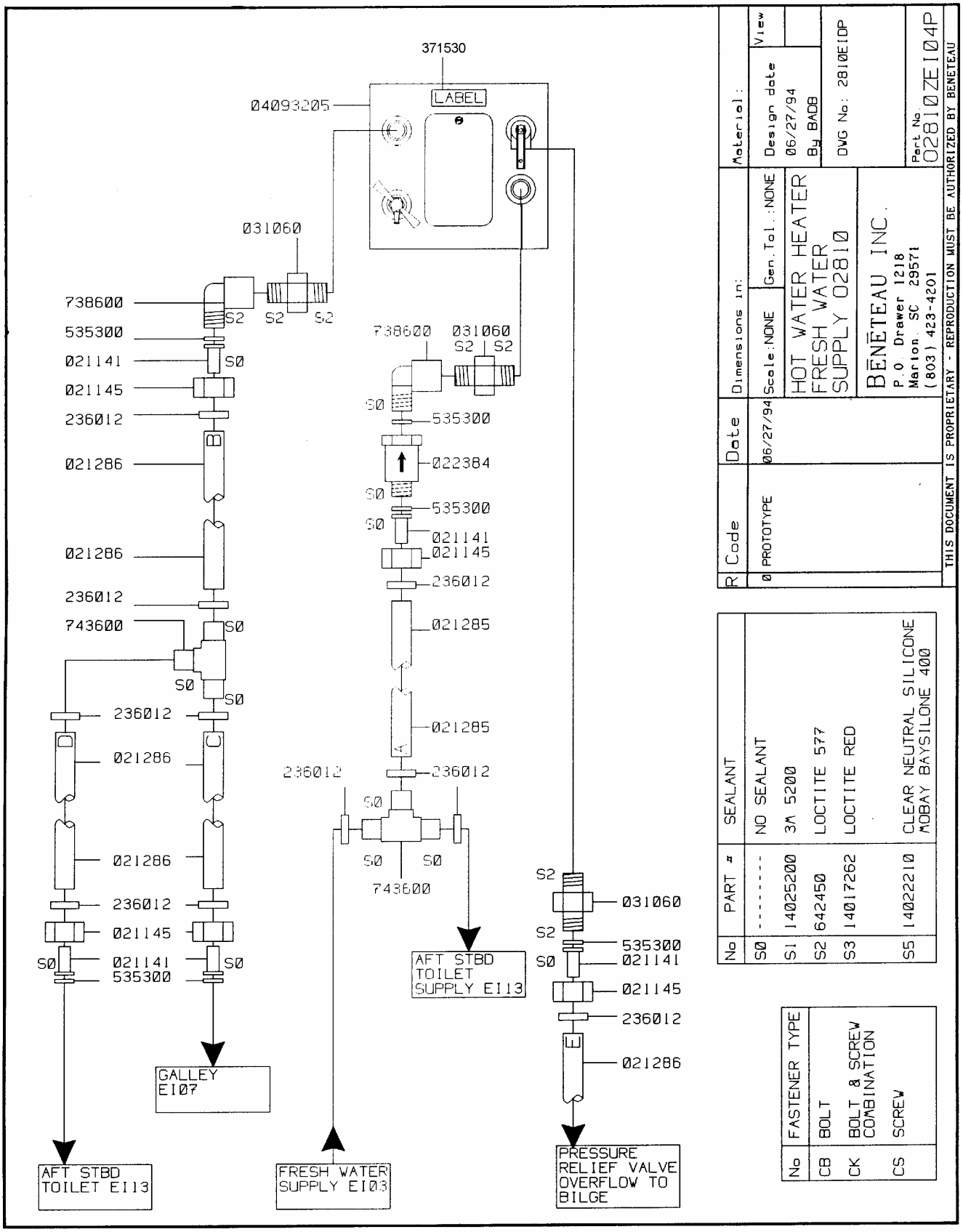
13.5.3.3. Galley Supply & Drain



13.5.3.4. Aft Stbd Toilet Supply & Drain

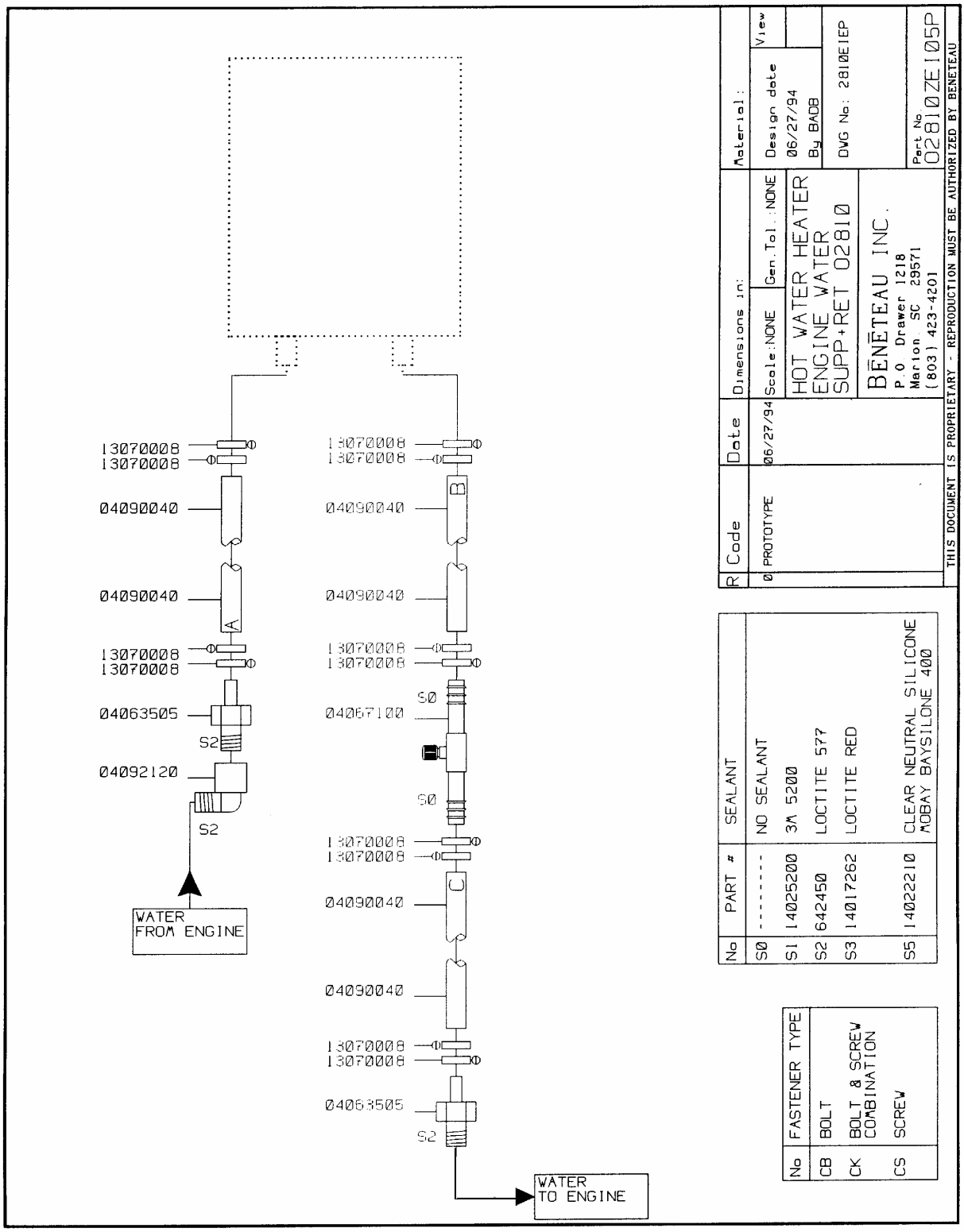


13.5.3.5. Hot Water Heater Fresh Water Supply

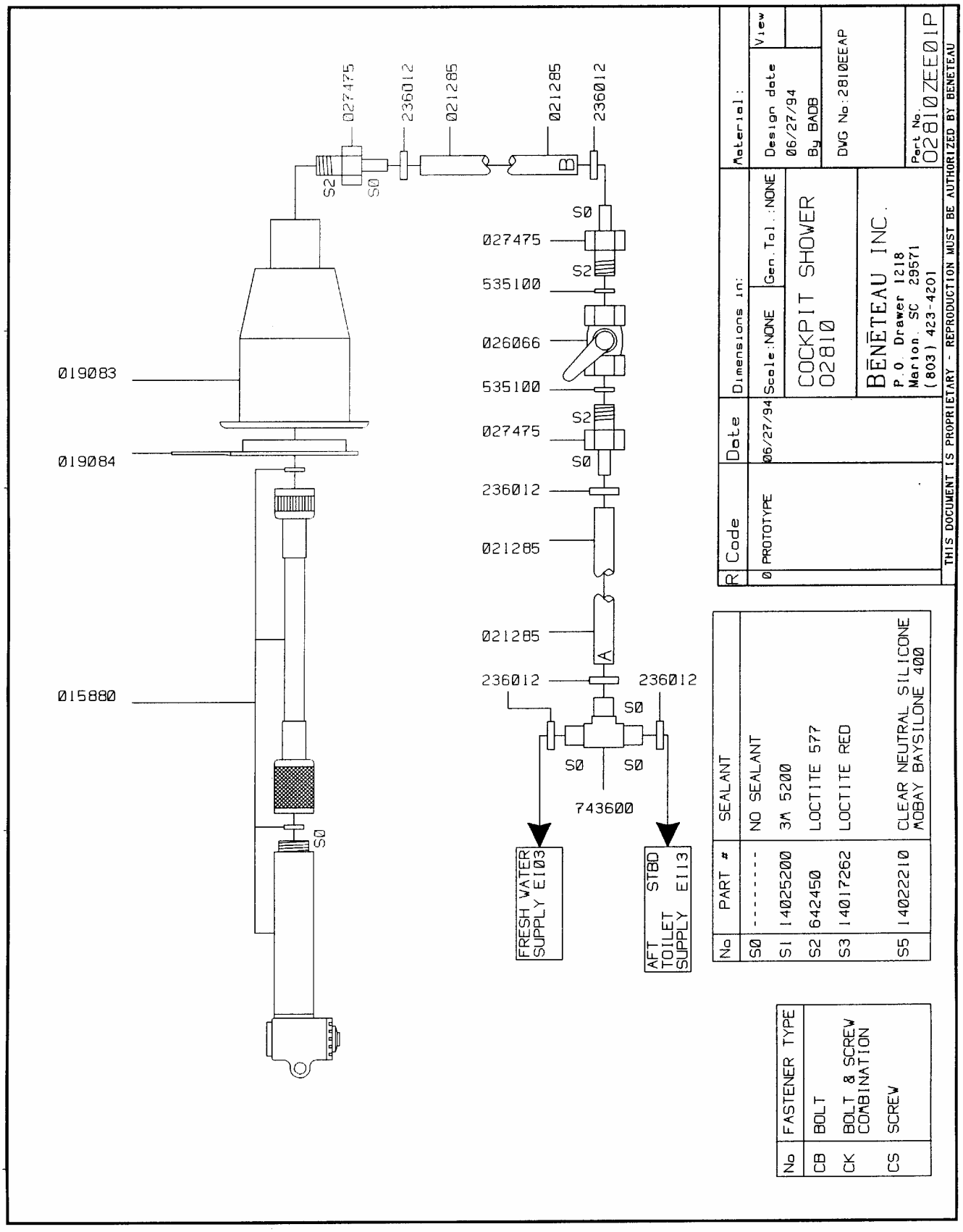


13.5.3.6. Hot Water Heater Engine Water Supply & Return

The hot water heater is an Atwood model EHM6 six gallon unit.



13.5.3.7. Cockpit Shower (Optional)



13.6. INTAKE & DISCHARGE THRUHULLS

13.6.1.General Description

This is used for draining the bilge, shower sumps, icebox and supplying and flushing out the heads. All these supply and flushing points have 1/4-turn valves, which must be opened only during use. The quarter-turn valve is open when the lever is in line with the pipe, and closed when it is at right angles.

13.6.2.Safety - Maintenance

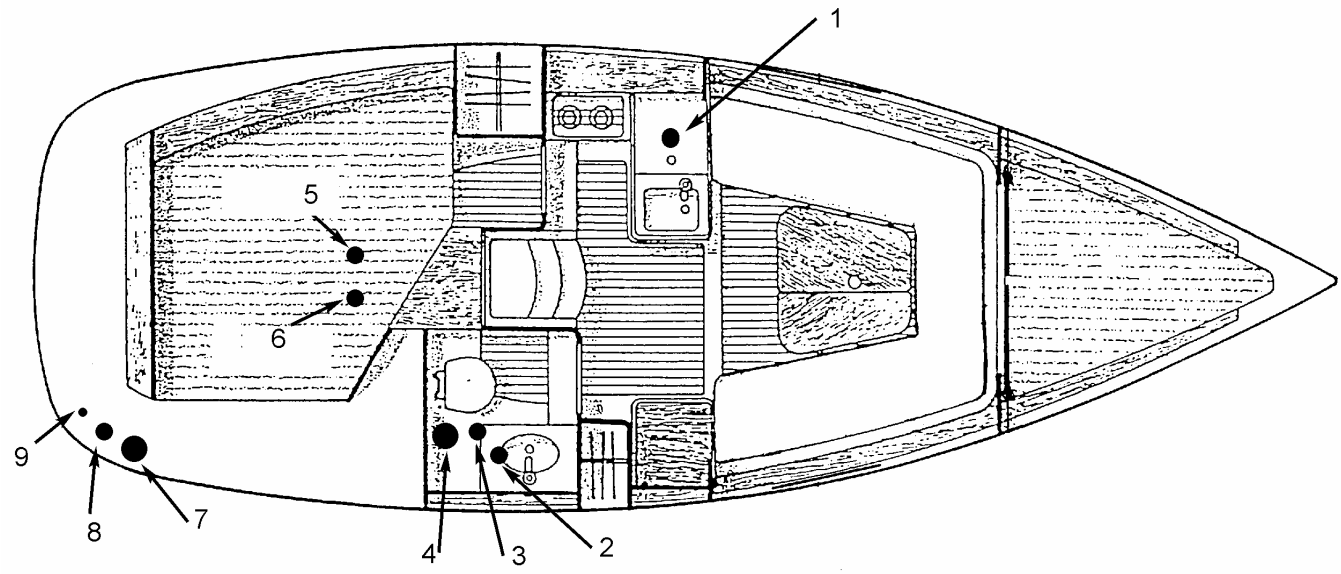
Take special care to see that these valves are well-maintained, have a good seal and work smoothly. Have a wooden tapered plug, of correct diameter at hand, so that they can be plugged on the outside if, for instance, a seized valve has to be dismantled, or lubricated.

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

NOTE: These recommendations also apply to the cooling system of the inboard engine, if your boat has one.

13.6.3.Thru Hull Drawing

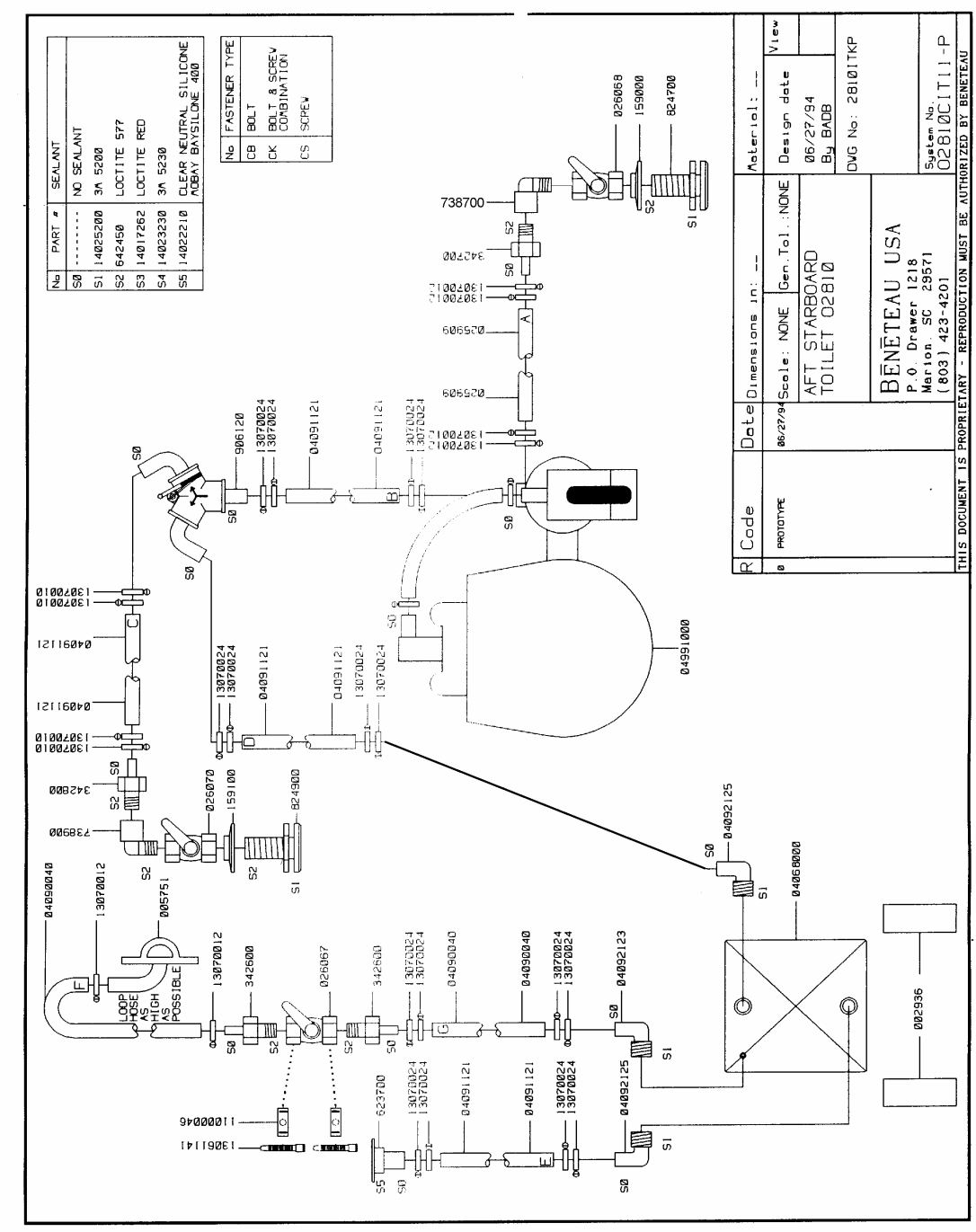
1. Galley Sink Drain
2. Head Sink Drain
3. Head Intake
4. Head Discharge
5. Stern Tube Inlet
6. Engine Raw Water Intake
7. Engine exhaust
8. Electric Bilge Pump Drain
9. Manual Bilge Pump Drain



13.7. MARINE TOILET & HOLDING TANK

13.7.1. General Description

The marine sanitary system consists of a marine toilet (head), (ITT- Jabsco Compact Toilet 29090-0000), a holding tank and a series of thru hull intakes, discharges and valves to control the intake of water into the head to flush the bowl either into the holding tank or overboard.



13.7.2.Head Operating Procedure

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

1. Read the instructions for use supplied by the head manufacturer and the precautions marked on the pump.

2. Before use, make sure that the water supply thru-hull valve is open, the holding tank vent line valve is open and the Y-valve is selected for discharge into the holding tank.

NOTE: BY LAW YOU MUST USE A HOLDING TANK IN ALL US WATERS.

3. Check with local authorities for regional laws governing your area before selecting the overboard discharge option. If you choose overboard discharge option, be sure the discharge thru-hull valve is open before using the head. Select the overboard discharge position on the Y-valve by turning the lever in the opposite direction of the overboard discharge hose.

4. Select "Flush Bowl" with the selection lever on top of the pump body and pump the handle until the bowl is flushed clean. Return the selection lever to "Dry Bowl" and pump the handle until the bowl is dry. The holding tanks capacity is approx. 12 gallons, limiting pump strokes will maximize its use.

5. **CLOSE THE VALVES AFTER USE.**

13.7.3.Holding Tank Pump Out Procedure

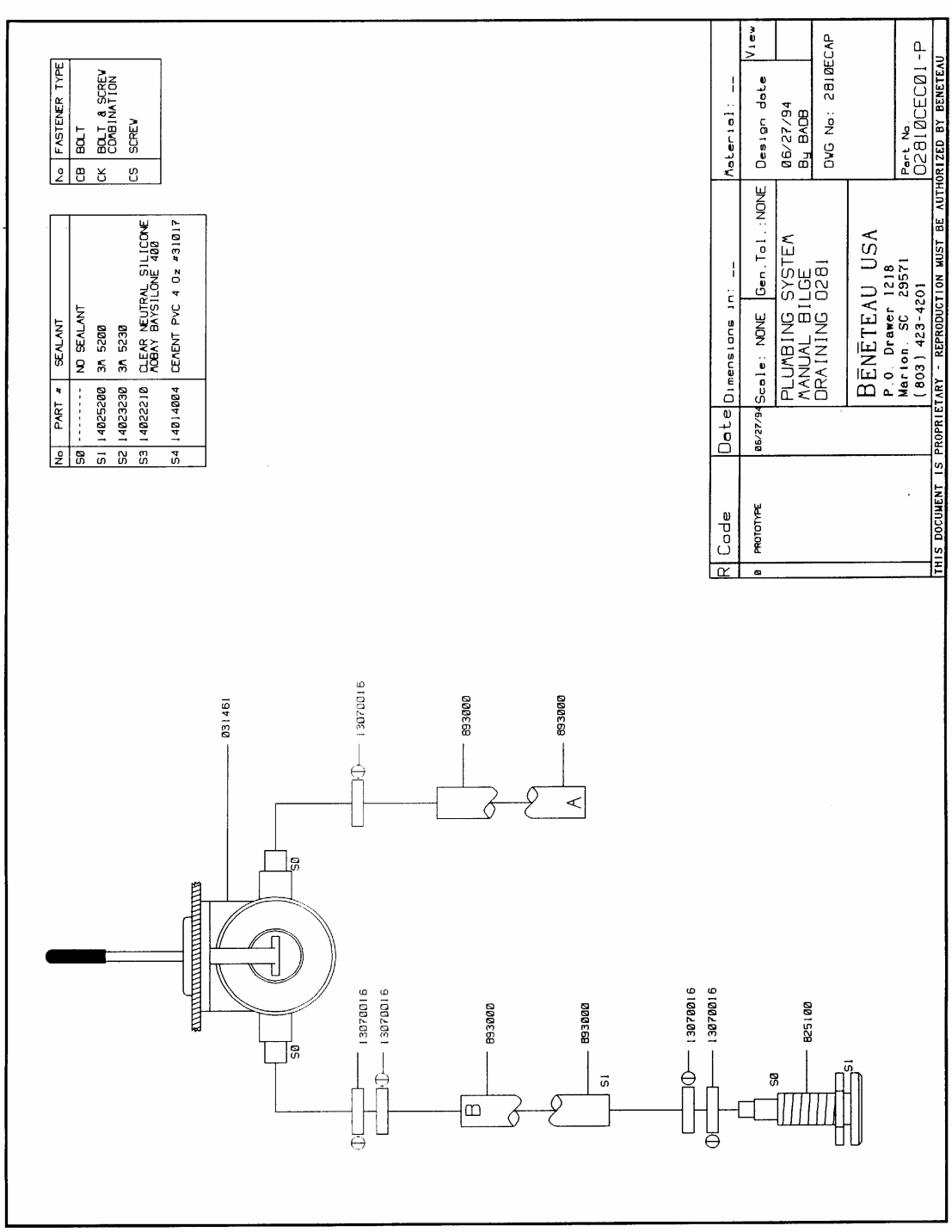
The holding tanks are pumped out thru deck plates located on the starboard transom and in the forward anchor locker. Consult your dealer or your marina for the closest pump out facility in your area.

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

13.8. BILGE PUMPS

13.8.1. Manual Bilge Pump

The manual bilge pump is located on the starboard side of transom walkthru. To operate the pump open the transom gate, insert the pump handle into the socket and pump vigorously. The intake of the hand-pump is at the bottom of the bilge sump, and discharges through the side of the hull on the starboard aft corner.

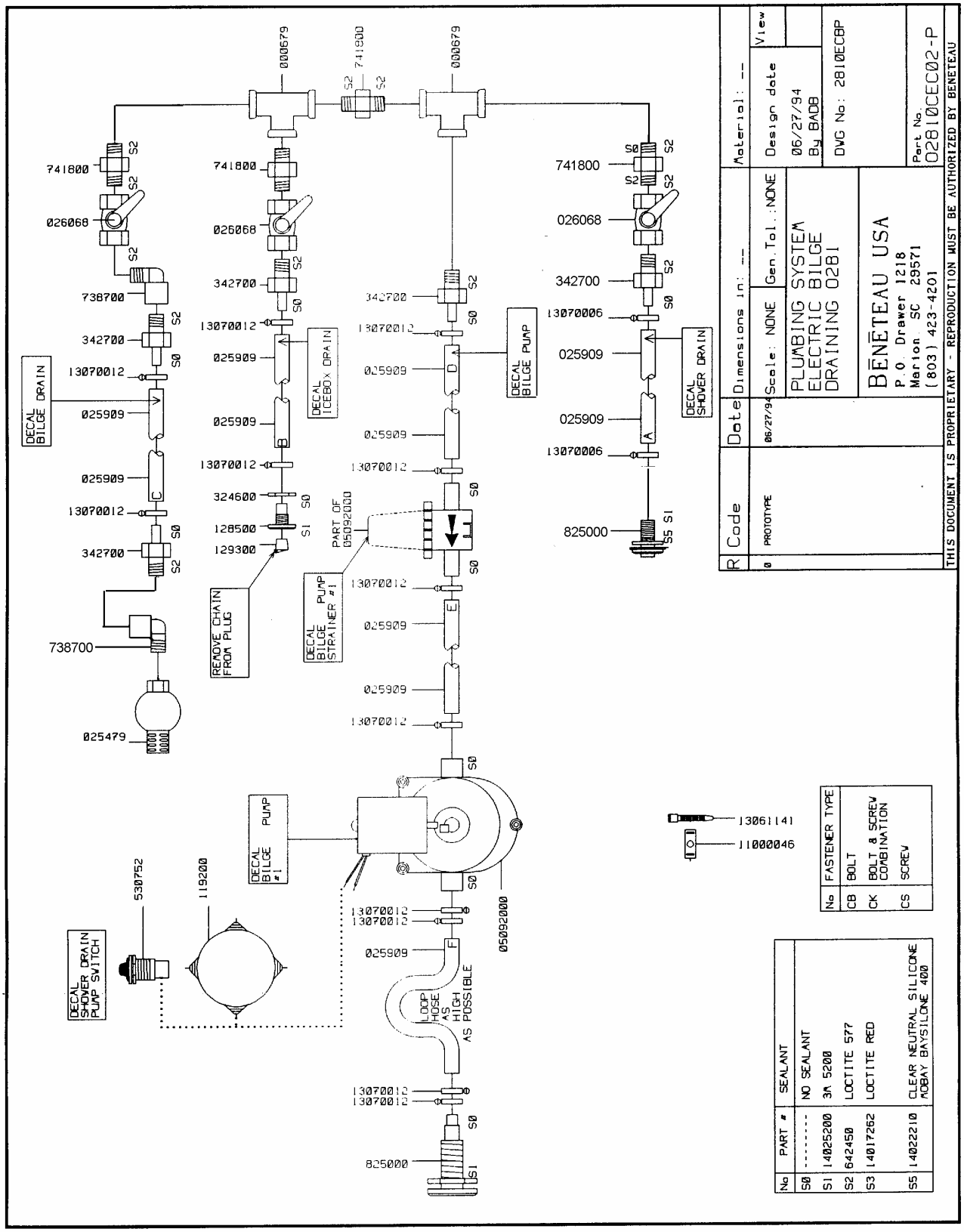


13.8.2.Electric Bilge Pump

The electric bilge pump drains both the bilge pump and the galley ice box. The pump, Y-Valve and filter are located in the pump house under the starboard middle settee in the main saloon. To drain the bilge or icebox select the correct position with the valve and turn on the pump. The pump is controlled from a switch on the main 12V panel. Be sure to clean the filter between the pump and sump carefully, at regular intervals. To clean the filter unscrew the body and wash out the filter screen.

WARNING! BE CAREFUL NOT TO WASH THE O-RING SEAL OUT OF THE FILTER.

13.8.2.1. Electric Bilge Pump System



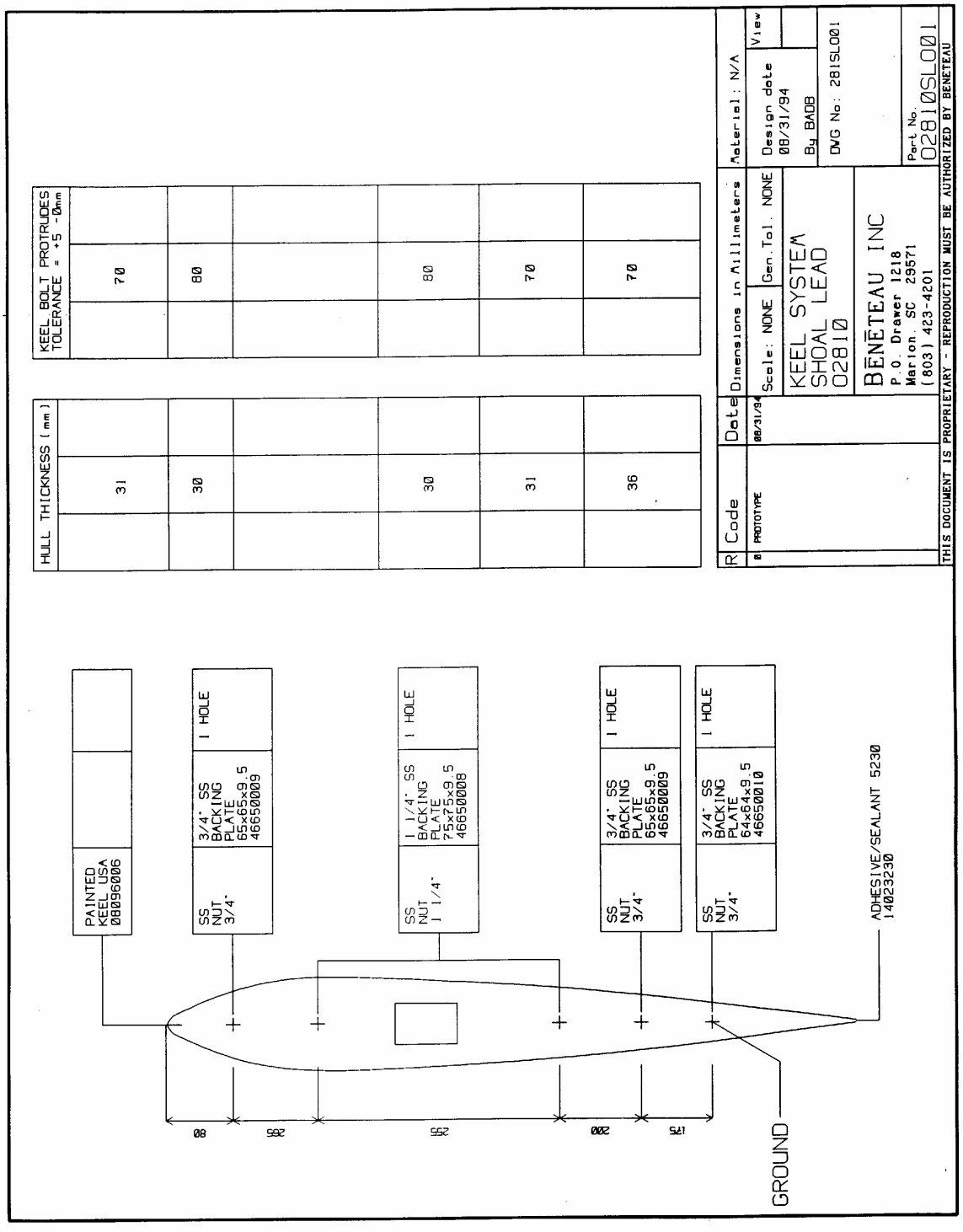
13.9. SELF- DRAINING COCKPIT

The cockpit is drained thru 2 tubes located at the outboard aft corners of the cockpit. Make sure that these drain holes are not blocked.

When using the cockpit as a "workshop" plug drain holes with large cork bungs to avoid the loss of any nuts or bolts which you may accidentally drop.

13.10. KEEL SYSTEM

13.10.1. Keel System Shoal Lead



13.11. ALCOHOL COOKING SYSTEM

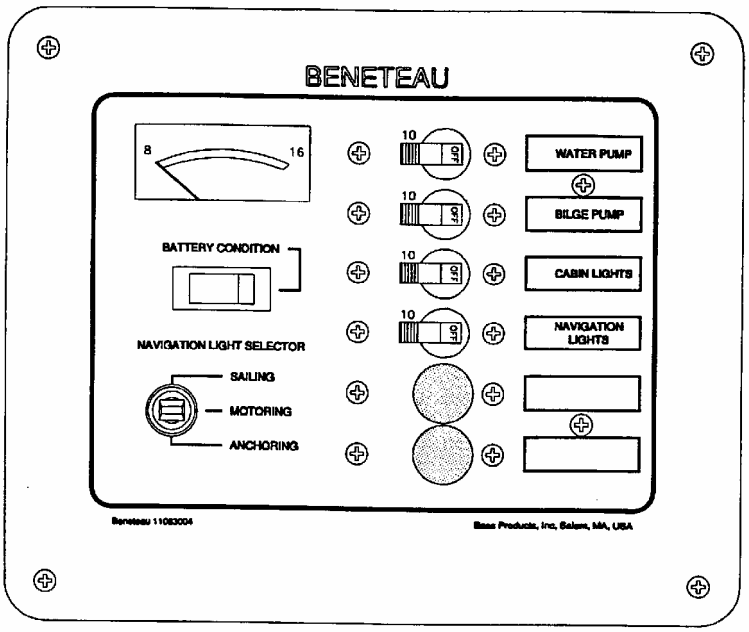
13.11.1. Alcohol Stove Description

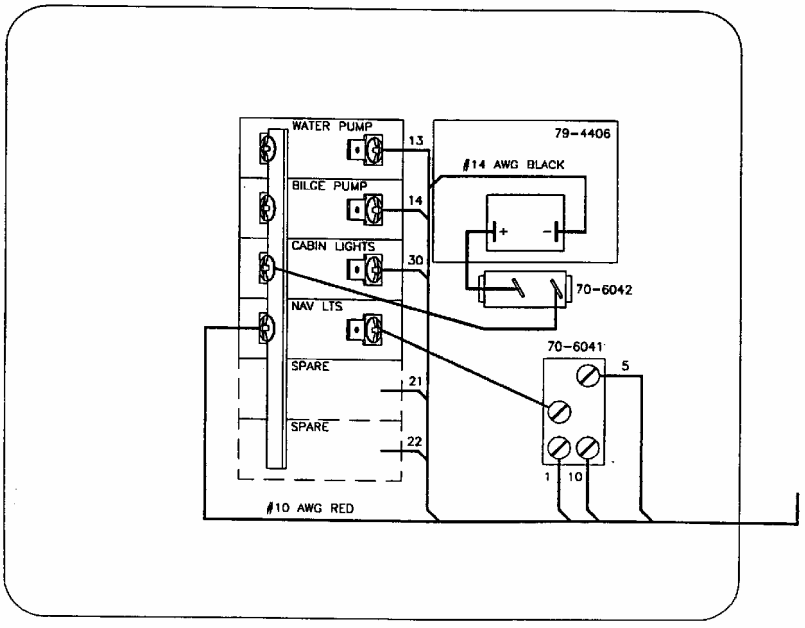
Your Beneteau is equipped with an alcohol stove. This unit is located in the galley and is gimbaled for your safety and comfort in a seaway.

13.12. 12V SYSTEM

13.12.1. 12V Distribution Panel

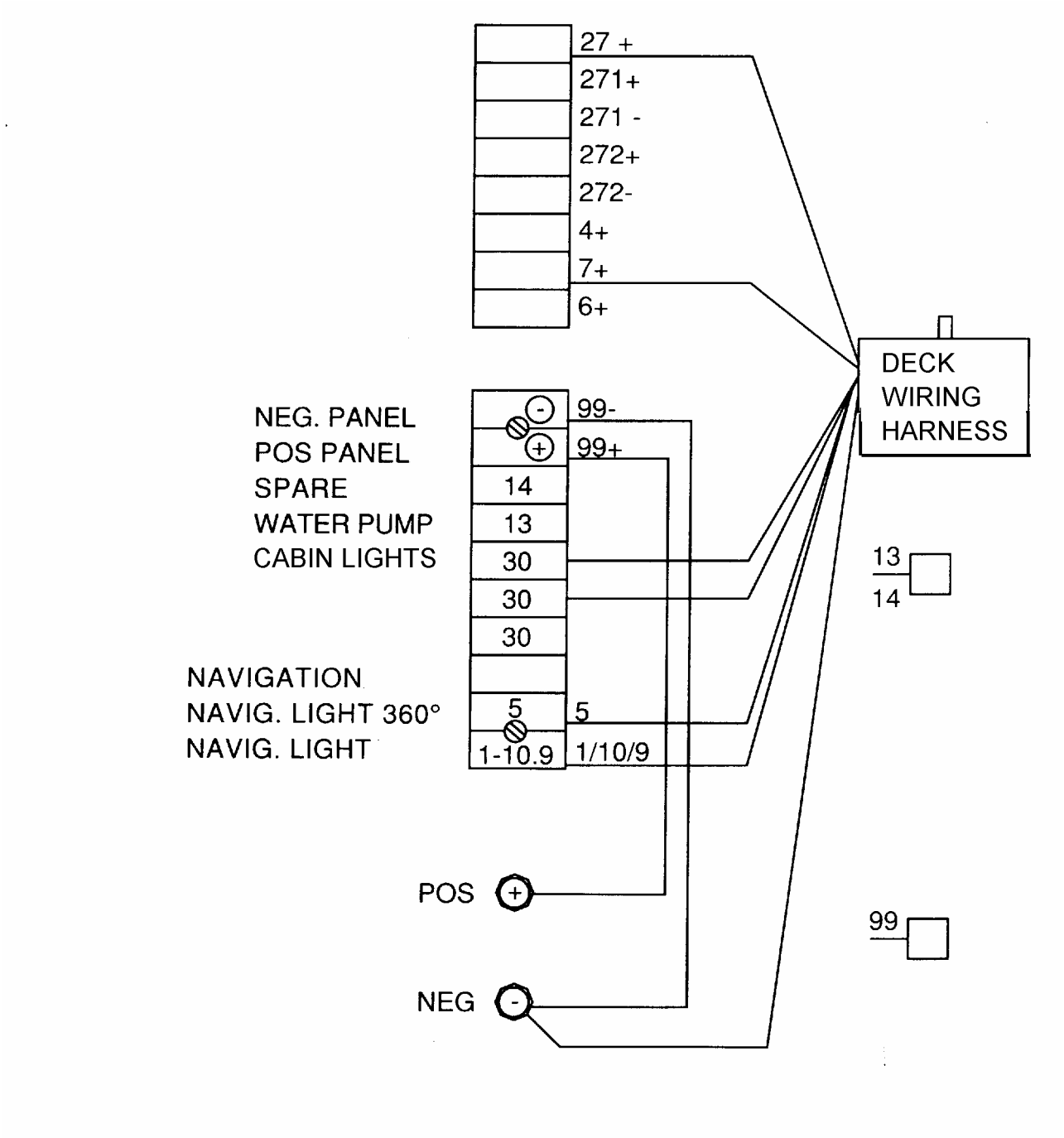
The 12V power from your batteries is distributed throughout your boat via a distribution panel. This panel separates the current into separate circuits. Each circuit is protected by an individual breaker switch which allows you to turn the individual circuits on or off as needed at the panel. Each breaker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





13.12.2. Wago Drawing

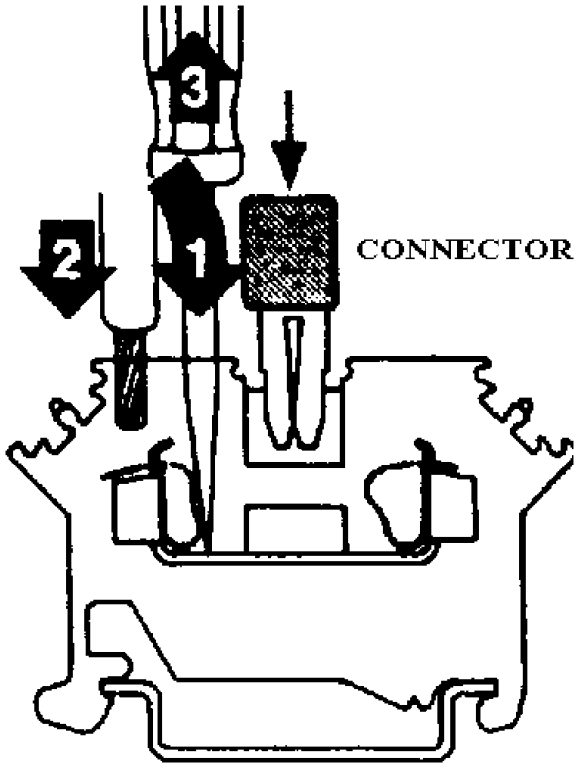
The panel is wired to the boat thru a "Wago" wiring block strip. The boat's wiring harness and the panel are connected together at the wiring block strip using a series of plugs from each that snap onto opposite sides of the wiring block strip. Each of the boats positive 12V circuits connect to it's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



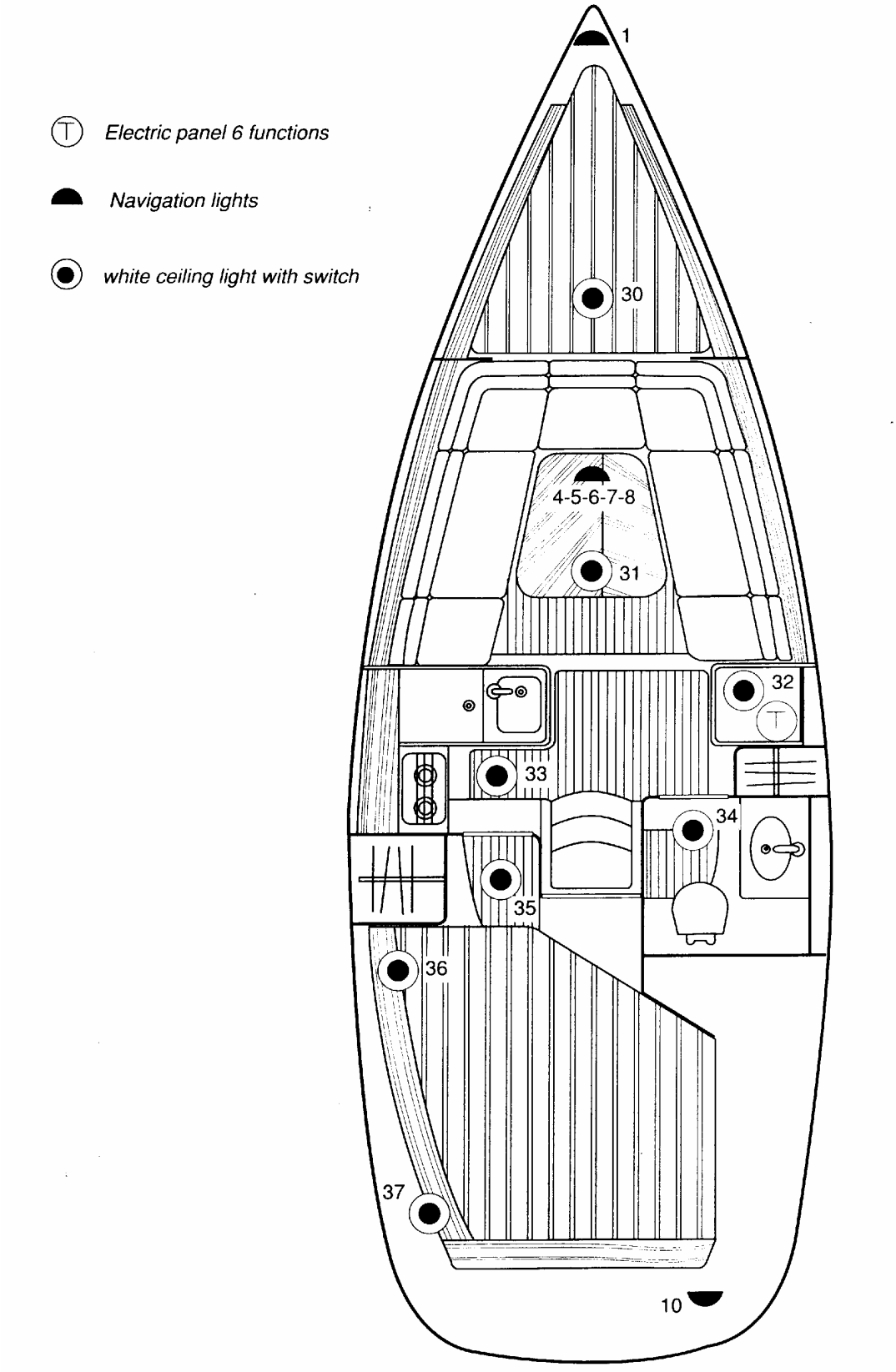
Each strip on the wago wiring block is an individual block mounted side by side on a frame to form the wiring block strip. These individual blocks can be connected to the blocks on either side of it to create a larger circuit as in the saloon lights. Wires are inserted into the block by:

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

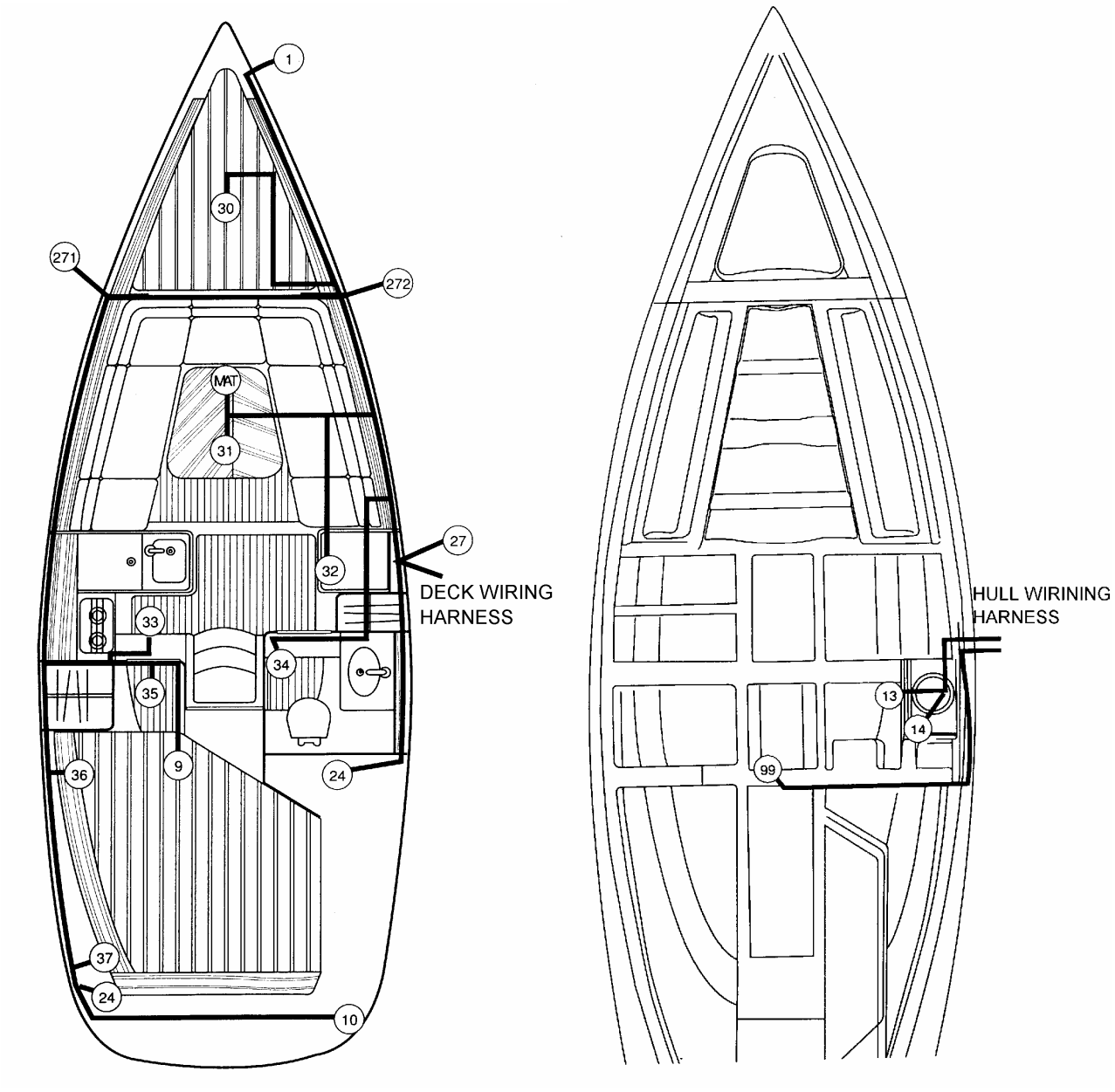
Remove wires by inserting the screwdriver and pulling out the wire.



13.12.3. Lighting Layout



13.12.4. Deck Electric Circuit



DECK HULL

WIRE NUMBERS

1 Bow Light
4 Mast Head Navigation Light
5 Mooring Light
6 Steaming Light
7 Deck Light
8 Mast Common Negative
9 Compass Light
10 Stern Light
13 Fresh Water Pump
14 Electric Bilge Pump
24 Fuel Gauge Indicator
27 Radio
30 Port Fwd Cabin Reading Light
31 Stbd Fwd Cabin Reading Light
32 Stbd Aft Cabin Ceiling Light
33 Stbd Aft Cabin Reading Light
34 Stbd Aft Cabin Reading Light
35 Aft Cabin Ceiling Light
36 Aft Cabin Reading Light
37 Aft Cabin Reading Light
99 Negative
271 Port Salon Speaker
272 Stbd Salon Speaker

13.12.5. Batteries

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

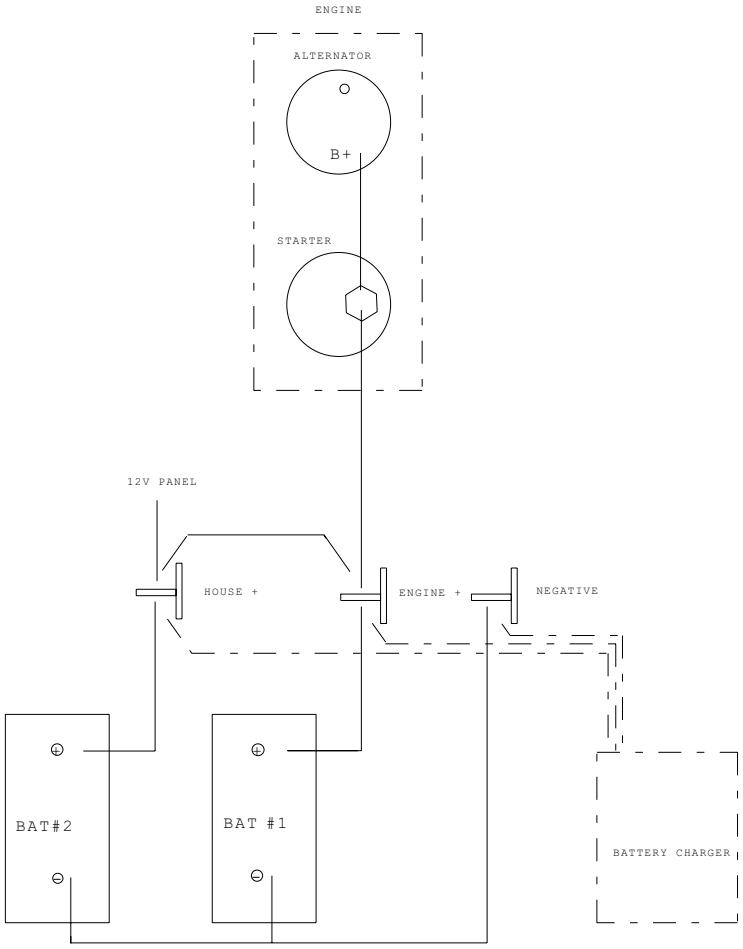
WARNING! NEVER OPERATE ISOLATING SWITCHES WHILE THE ENGINE IS RUNNING - DOING SO COULD DAMAGE THE ALTERNATOR DIODES AND REGULATOR BEYOND REPAIR.

13.12.6. 12V Charging System

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

13.12.6.1. Alternator

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



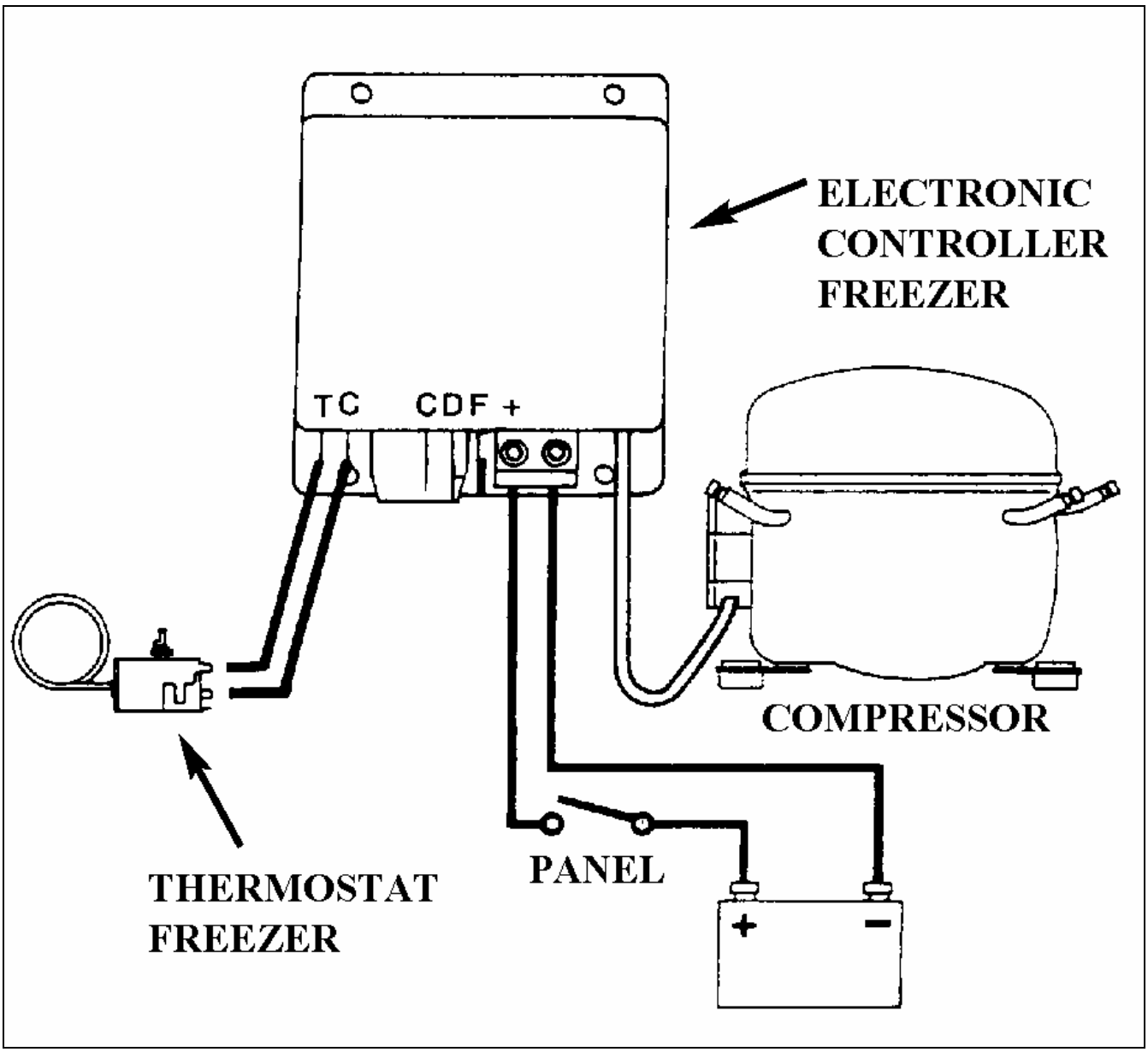
13.12.6.2. Battery Charger (Optional)

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

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

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

13.12.7. Refrigeration (Optional)



13.12.8. Windlass Operation

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

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

Set the anchor by engaging the engine in reverse briefly. Do not set the anchor by pulling in with the windlass.

Always make the anchor rode fast on a cleat when the anchor is set. Do not rely on the windlass brake to hold the boat.

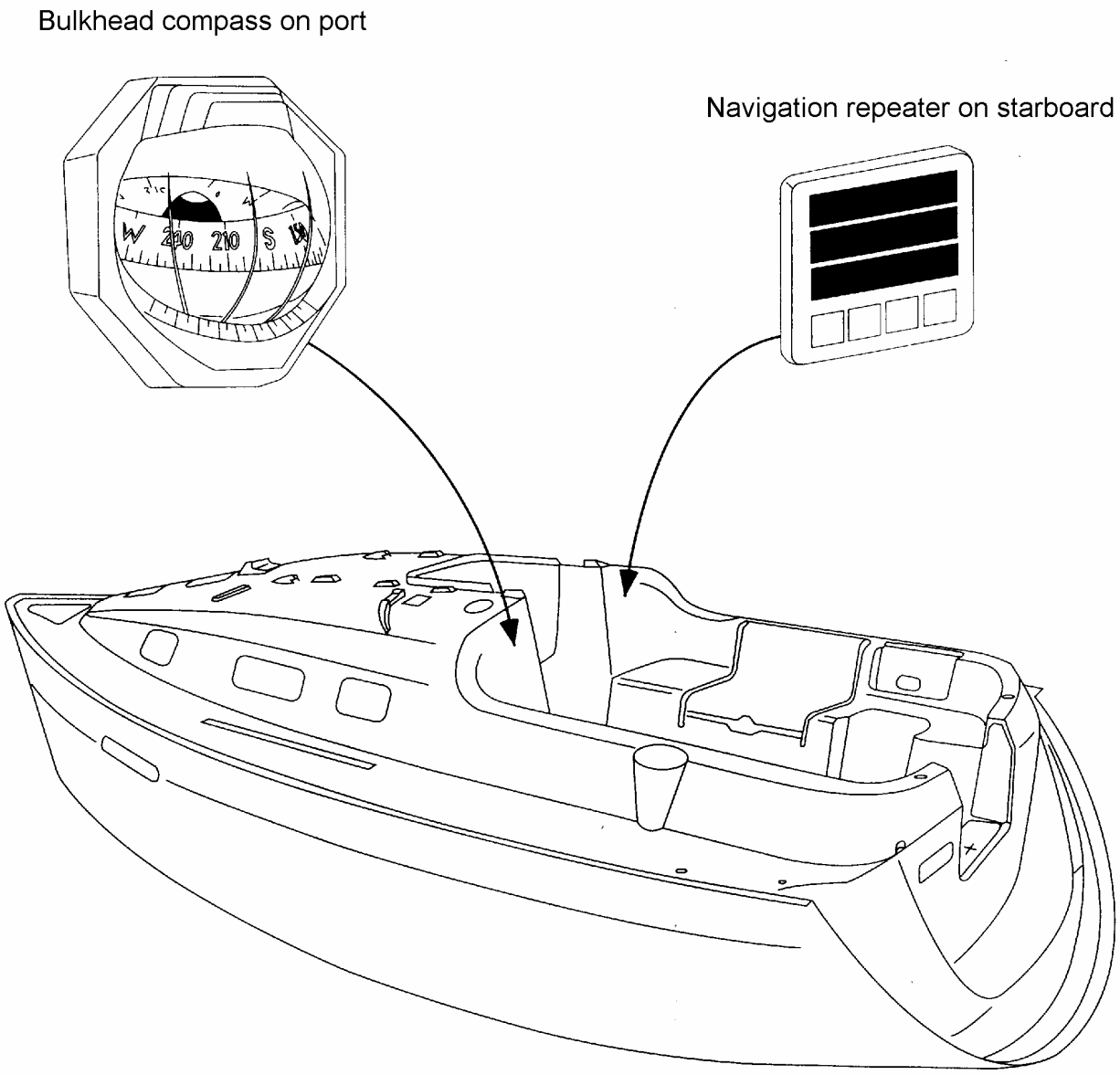
WARNING! THE MOTION OF THE BOAT AT ANCHOR CAN CAUSE LOADS ON THE ANCHOR RODE THAT MAY DAMAGE THE WINDLASS.

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

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

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

13.12.9. Instrument Display Location



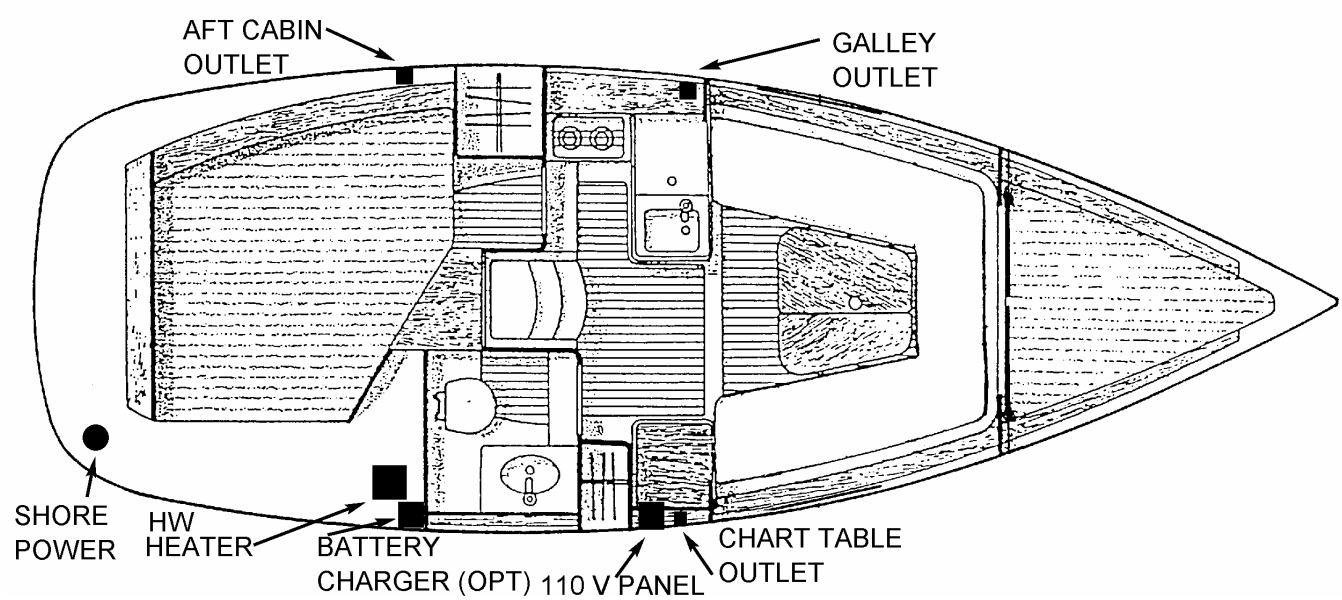
13.13. 110V SHORE POWER SYSTEM

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

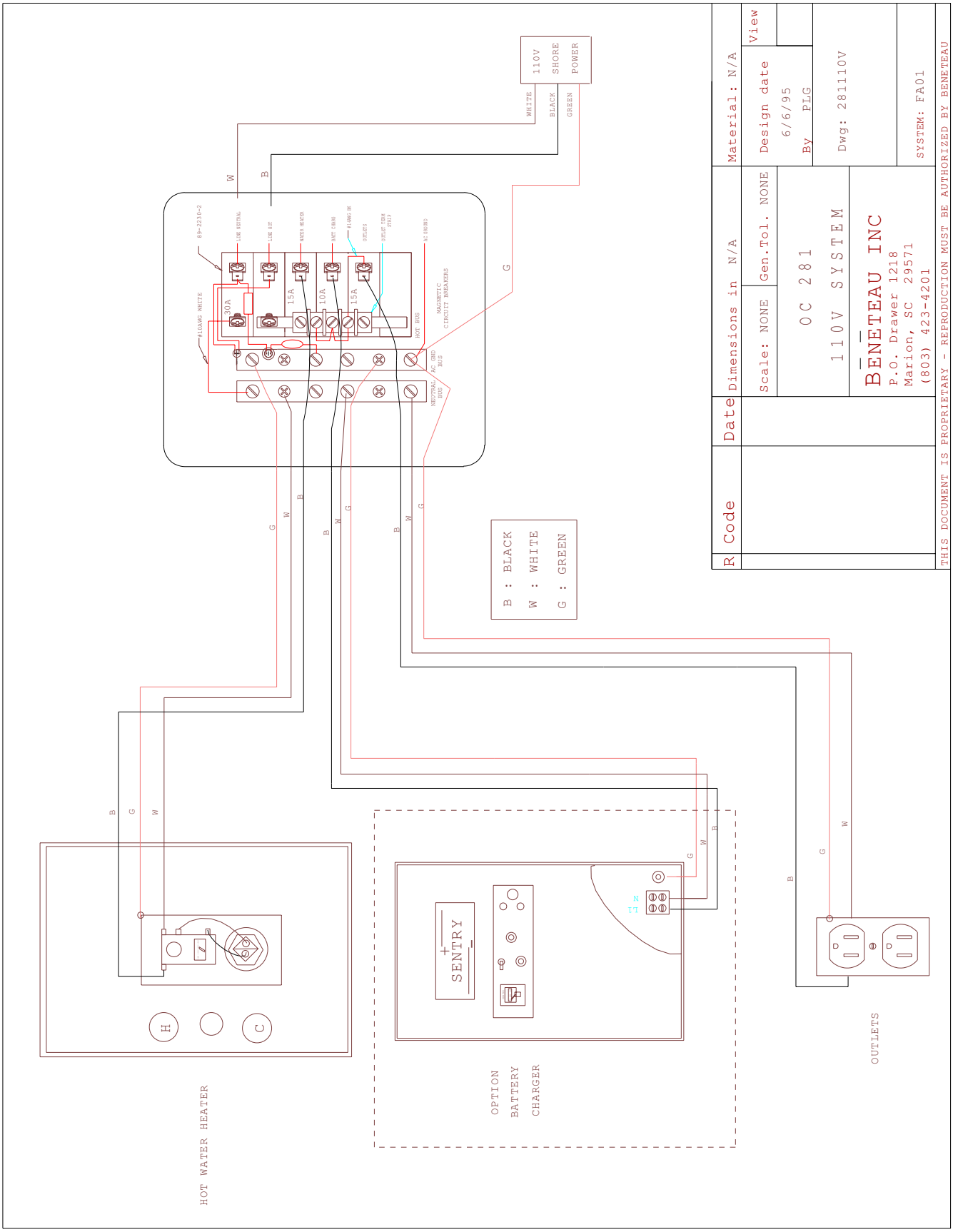
WARNING! DO NOT WIRE OPTIONAL AIR CONDITIONERS TO THE SHORE POWER SYSTEM, INSTALL A SEPARATE SERVICE AND PANEL.

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

13.13.1. 110V Layout



13.13.2. 110 Volt System

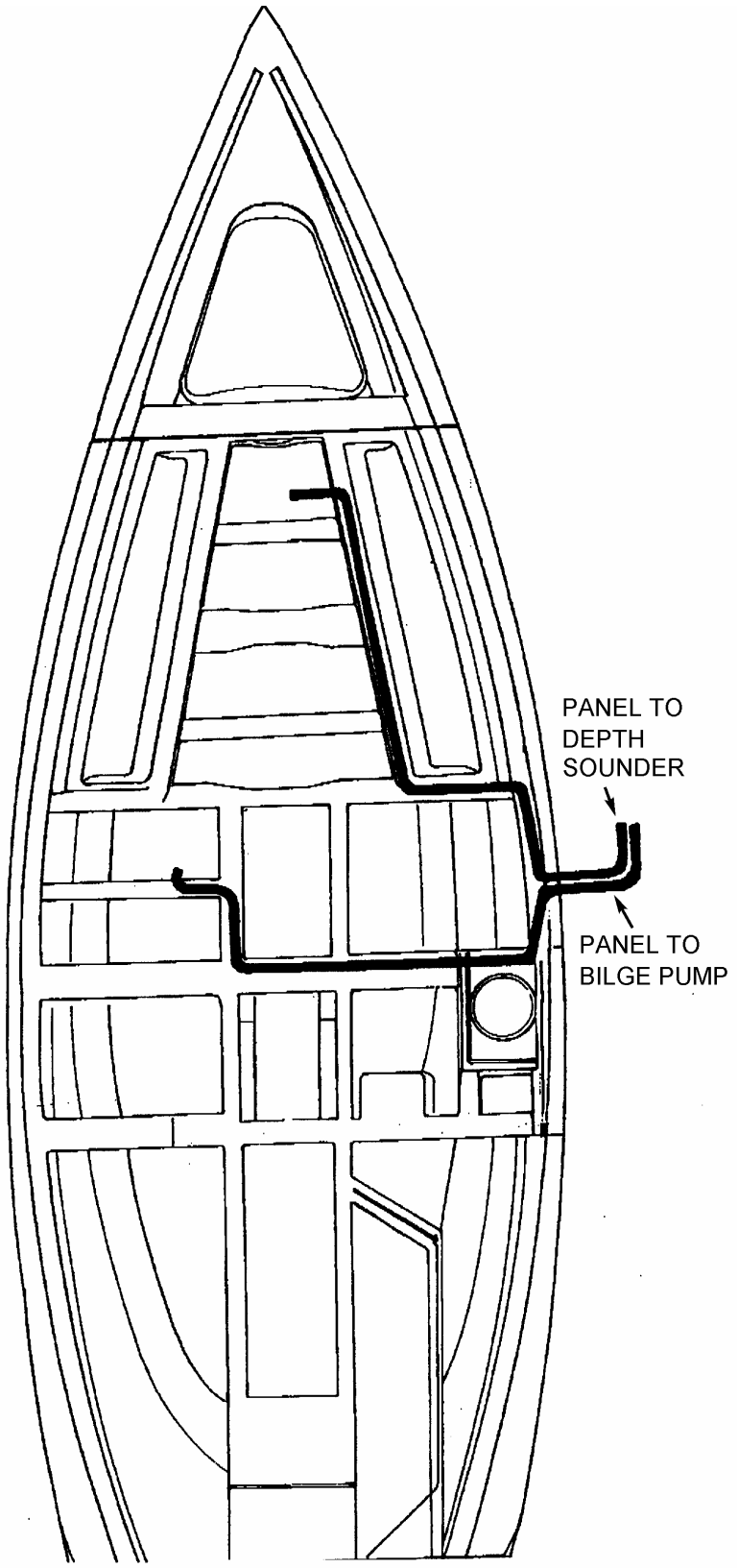


13.13.2.1. Operation

1. Shut down the diesel engine.
2. Switch all 110V breakers off.
3. Switch the dock outlet breaker off.
4. Plug the shore power cord into the boat and dock outlet.
5. Switch the dock breaker on.
6. Switch the panel breakers on as needed.

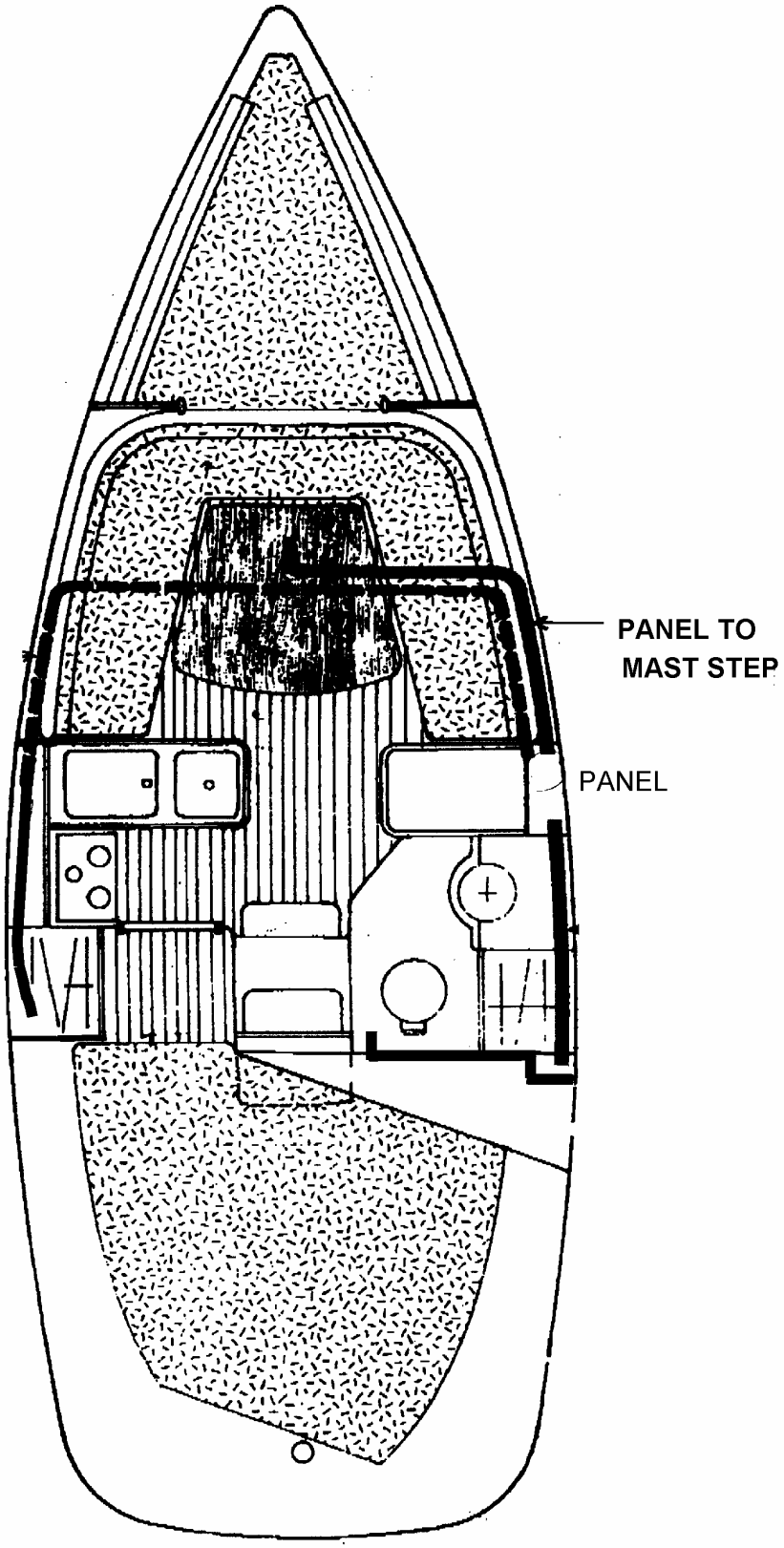
WARNING! DO NOT OPERATE THE 110V WATER HEATER DRY.

13.13.3. Conduit Routing In The Hull



HULL CONDUITS

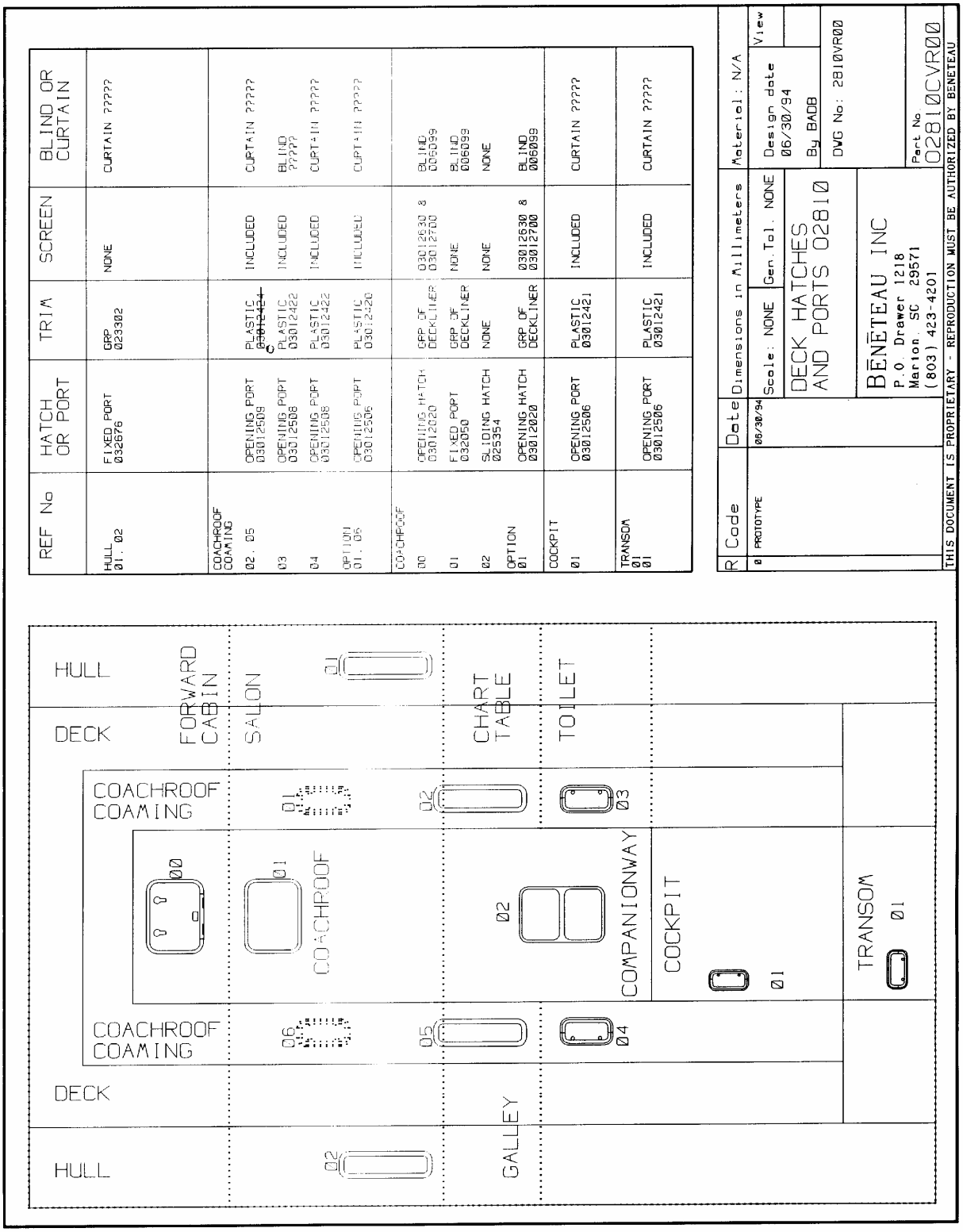
13.13.4. Conduit Routing In The Deck



DECK CONDUITS

13.14. DECK HATCHES AND PORTS

13.14.1 Deck Hatch And Port System

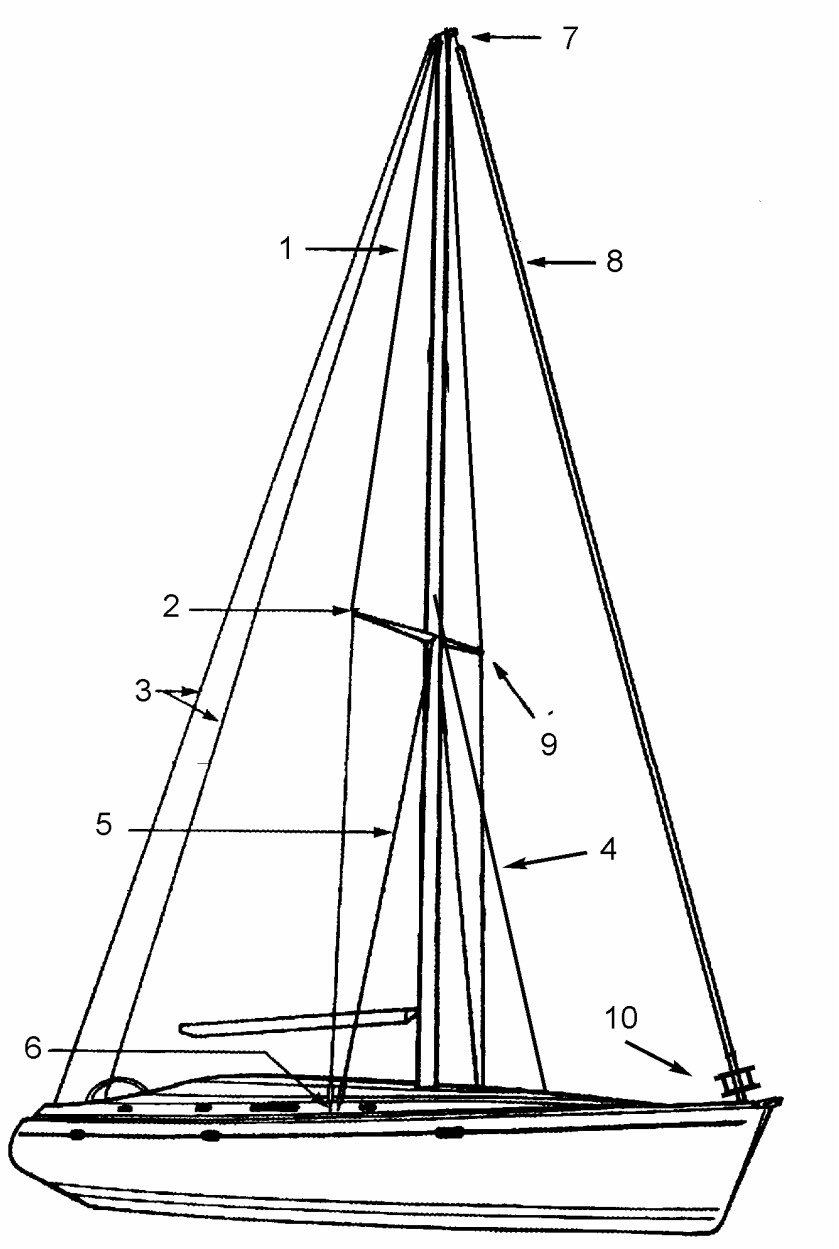


13.15. RIGGING

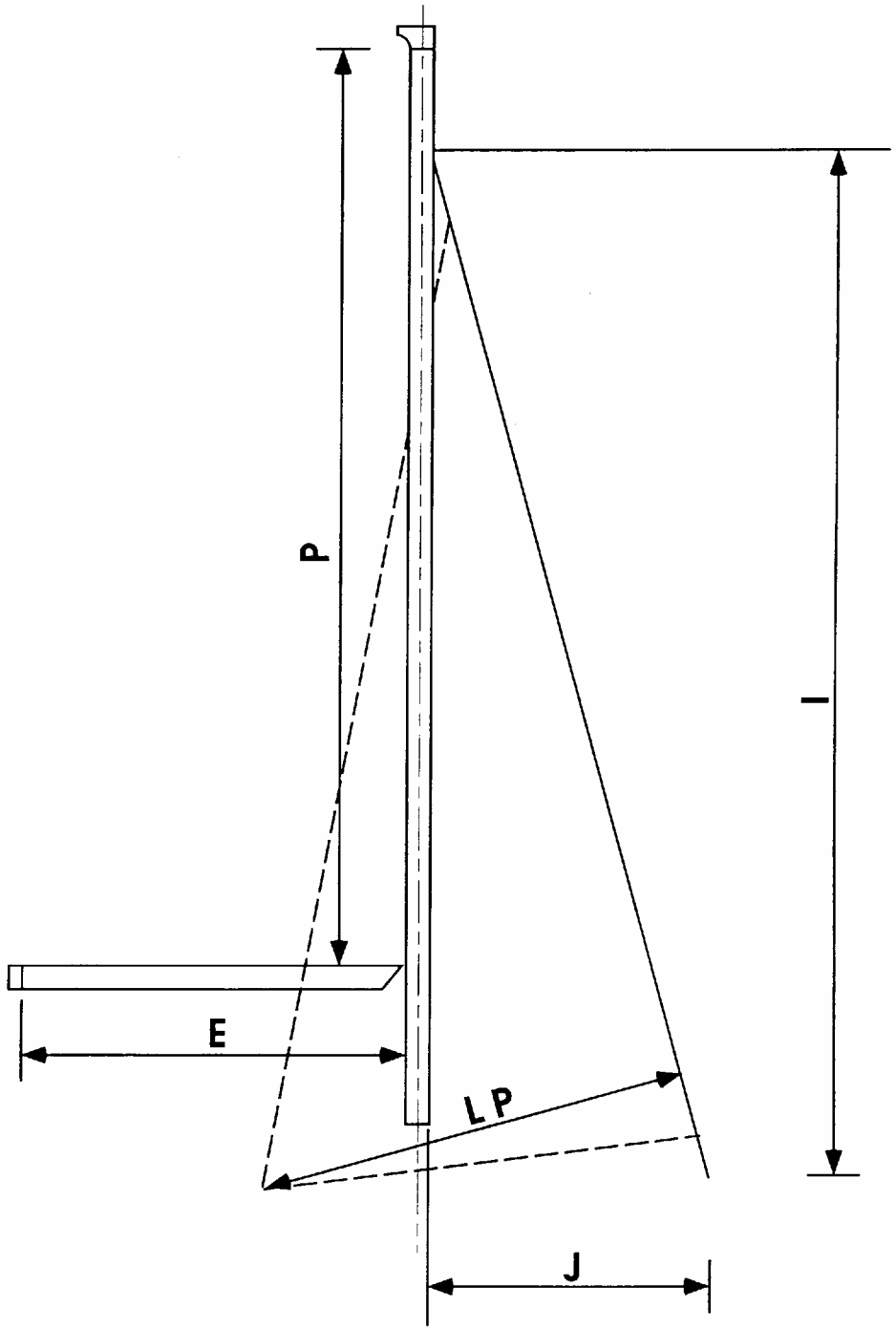
13.15.1. General Description

The rig consists of a mast and boom held up and tensioned by the standing rigging. The standing rigging on your Oceanis is discontinuous. This arrangement saves weight aloft by eliminating extra shrouds. The sails are attached to the mast, boom and genoa furler. The sails are shaped and controlled by the running rigging.

1. Cap Shroud (V1D2)
2. Spreader Tip
3. Backstays
4. Babystay
5. Aft Lowers Shroud (D1)
6. Chainplate & Turnbuckles
7. Masthead
8. Forestay
9. Spreaders
10. Roller Furling Drum Above Deck



13.15.2. Measurements

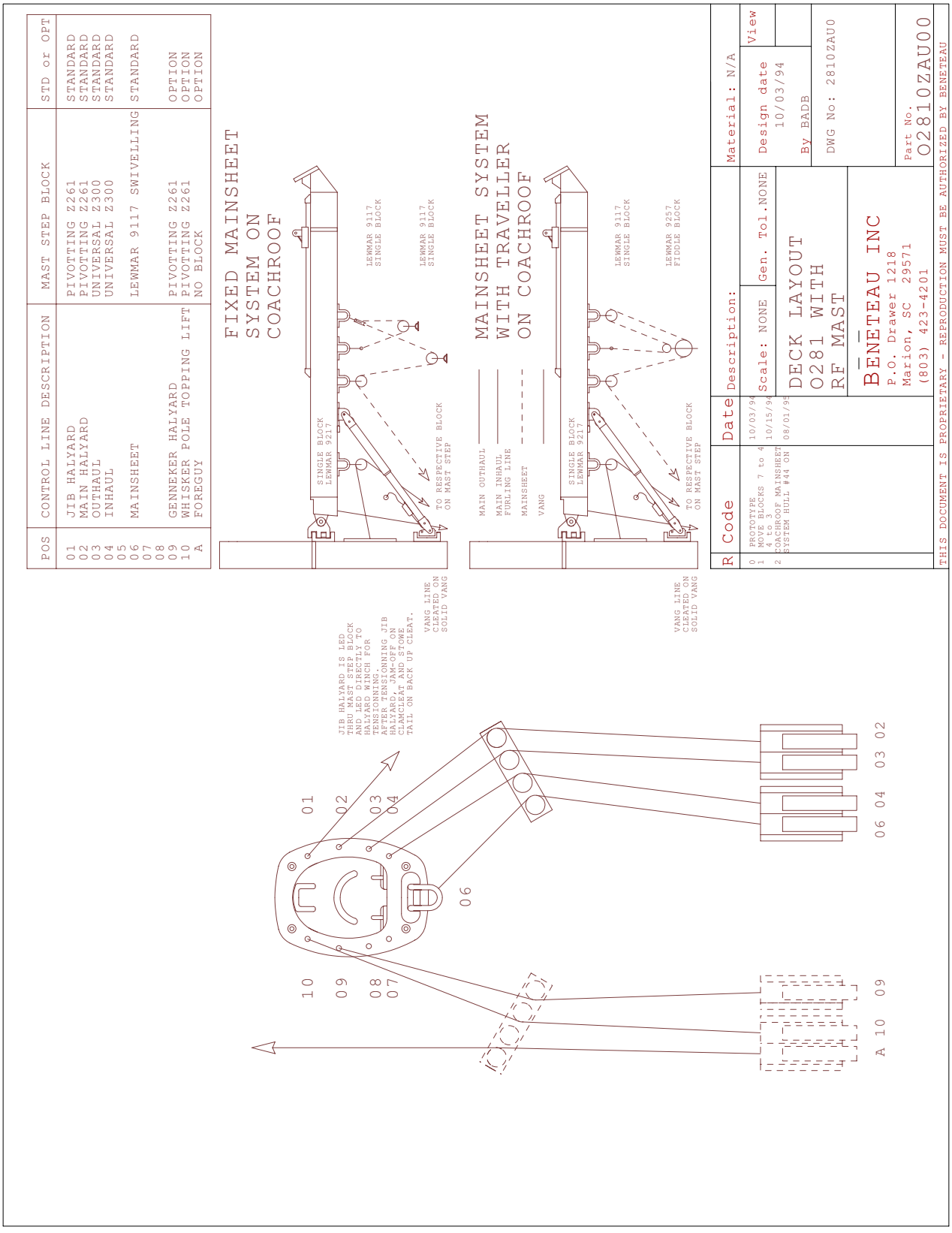


13.15.3. Tuning

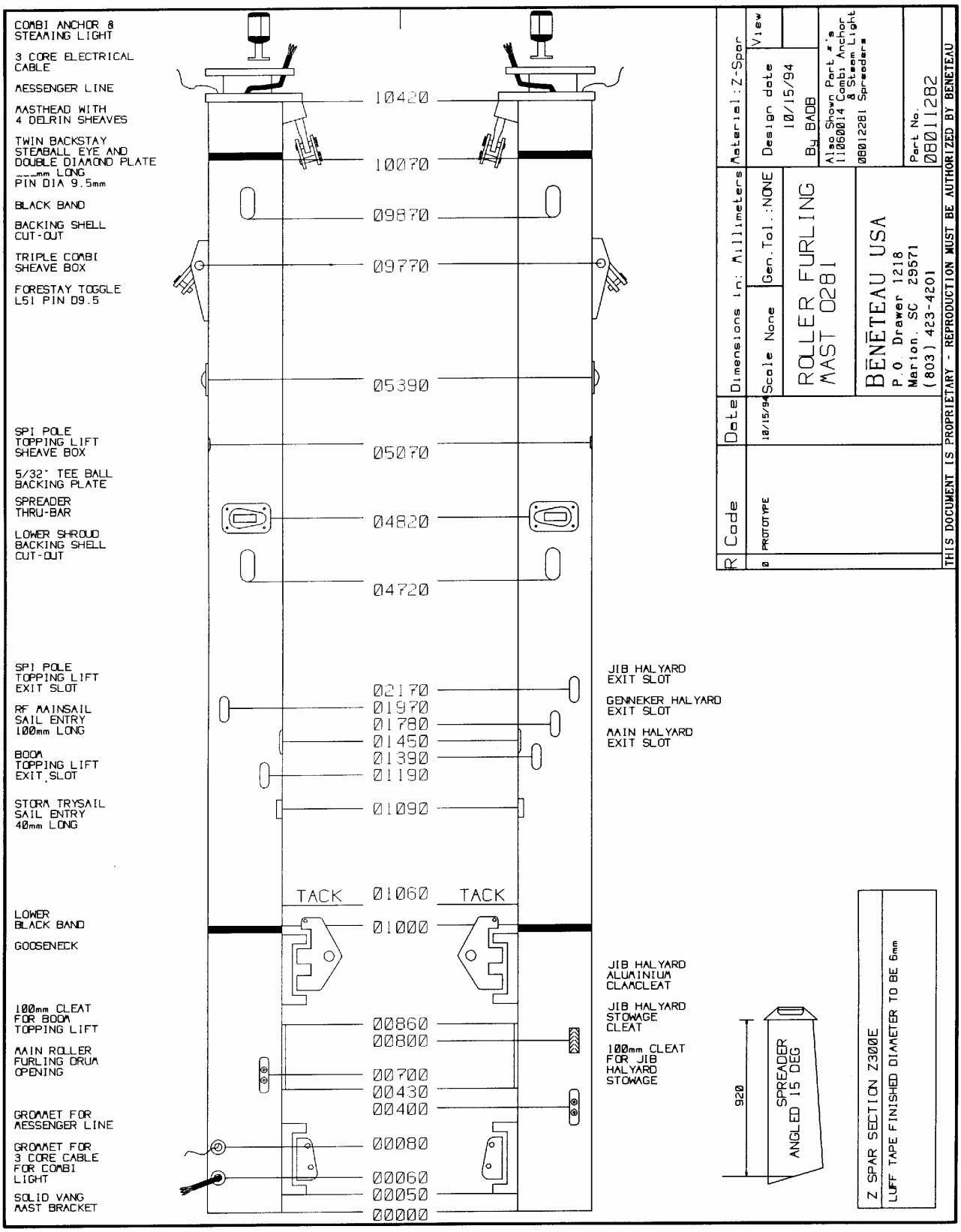
To achieve the best performance from your boat the mast and rigging needs to be tuned correctly, the initial tuning of your boat should be completed by your Beneteau Dealer. The tuning of your Beneteau takes a little bit of time and care, but if the mast is correctly setup initially it will require very little adjustment in the future. (some stretch will occur with new wire and the rig may need adjustment to compensate for this initial stretch).

1. Keep all turnbuckle threads clean and free of grit. Always apply copper paste or never seize to the turnbuckle threads before screwing on the turnbuckle bodies.
2. Attach the V2/D3's and D2's to the lower spreader tip turnbuckles.
3. Set the V2/D3's to the length specified in the rigging specs on page 57.
4. Leave the D2's slack.
5. Step the mast and attach the genoa furler first. The headstay is a fixed length, this sets up the mast rake automatically.
6. Attach and finger tighten the V1's and backstays, attach the fore and aft D1's leaving these turnbuckles loose.
7. Center the mast in the boat by tightening the V1's alternately until the masthead is centered athwart ships. (Attach a tape measure to the main halyard and measure to opposite points on the toerail to check the position)
8. Commence tightening the V1's with equal turns on each side until they become tight. (Be sure the D2's do not come under any tension during this process.)
9. When the V1's are tight start tensioning the aft D1's equally keeping the mast in column until they are tight. (Looking up the aft side of the mast, the mainsail track should be straight up and down. Equalize the tension on the D1's to keep the track straight)
10. Tension the forward D1's equally, again check the mast to maintain it in column.
11. Now go up the mast and tighten the D2's. These do not have to be very tight. They only hold the mast straight while sailing and do **NOT** require a lot of tension.
12. Tighten the backstays, if you have a furling mast do not induce any bend in the mast by over tightening the backstays.
13. Pin all turnbuckles and tape around the turnbuckle body with rigging tape only where the pins go through.
14. The mast should remain straight while sailing on either tack.
15. Do not worry if the leeward shrouds are slightly slack under sail . For most sailing it is quite acceptable.

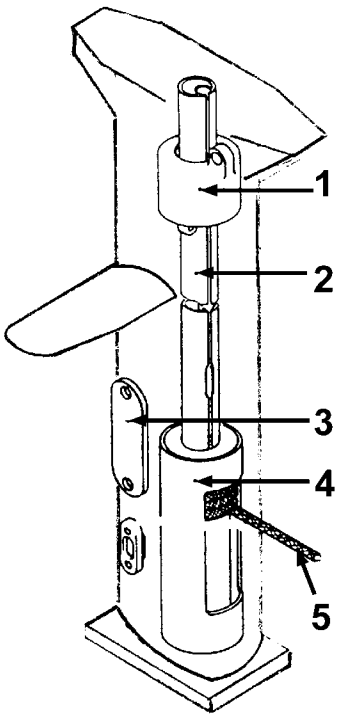
13.15.4. Roller Furling Mast Deck Layout (Hull # 44 and up)



13.15.5. Roller Furling Mast Drawing



13.15.6. Roller Furling Mast



1. Main Swivel Hoist Car
2. Furling Tubes
3. Access Plate
4. Main Sail Furling Drum
5. Main Sail Furling Line

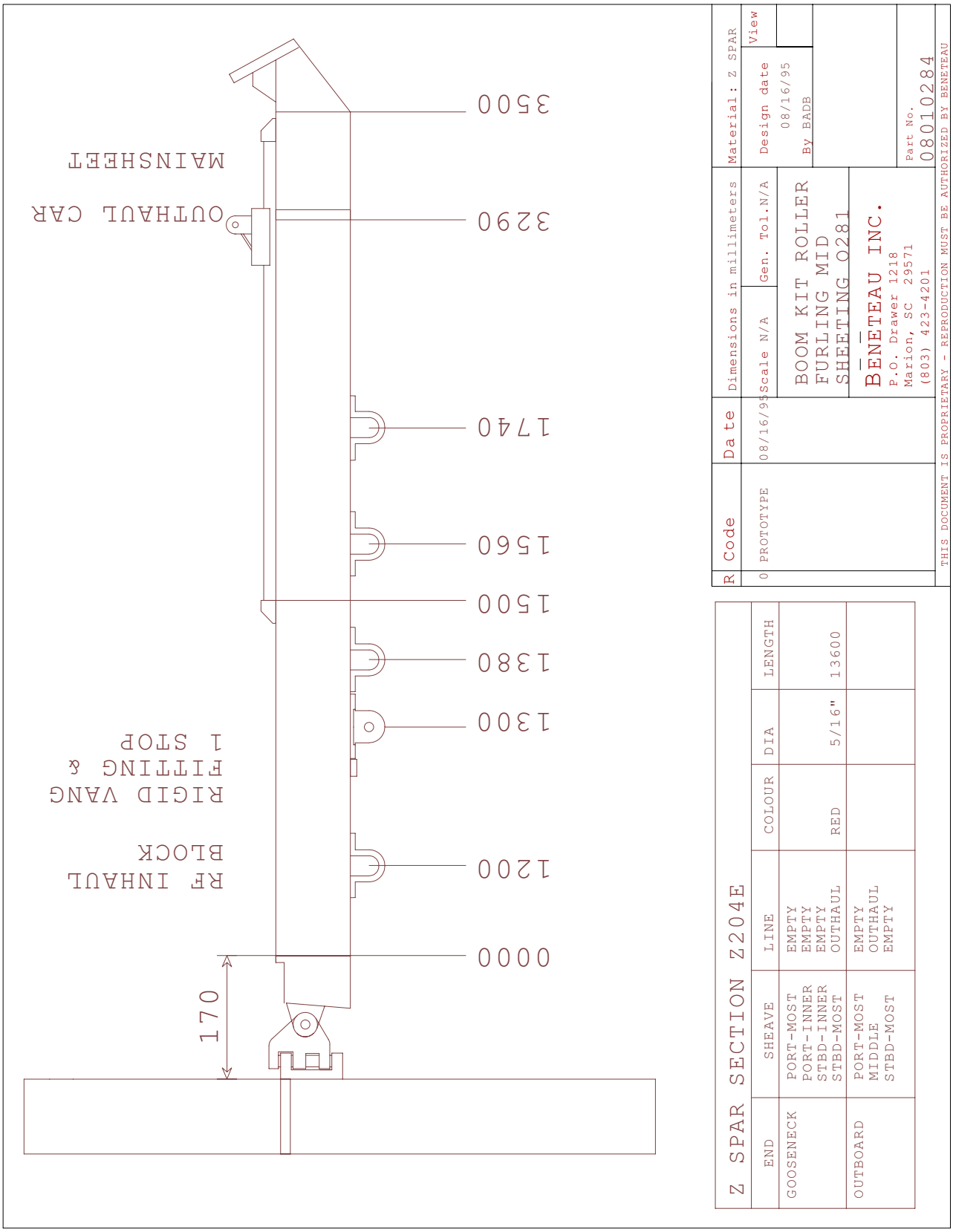
MAINSAIL INSTALLATION

1. The main should be installed in as little wind as possible.
2. Be sure the furling drum line is completely wound with line before installing the mainsail. (Wind the drum by hand to wrap more line onto the drum.)
3. Lower the main swivel hoist car to the gooseneck with the main halyard.
4. Attach the mainsail headboard to the shackle on the bottom of the swivel car.
5. Hoist the mainsail slowly, feeding the luff tape into the extrusion luff groove.
6. Attach the mainsail tack to the lower swivel shackle and tension the luff with a winch.
7. Run the out haul line thru the block on the clew of the main and back to the out haul car.
8. The main is now ready to be furled.
9. When sail is out, there should be no less than 2 wraps and no more than 4 wraps.

FURLING MAST OPERATION

1. Two lines control the mainsail furling operation: The furling line controls the rotation of the furling tubes and the out haul line controls the tension on the sail.
2. **NOTE: IT IS IMPORTANT TO REMEMBER THAT THE FURLING LINE CONTROLS THE SAIL AREA AND THE OUT HAUL LINE CONTROLS THE SAIL SHAPE!**
3. Always furl and unfurl the main with the boat head up to wind.
4. The main is unfurled by easing out the furling line while taking up on the mainsail out-haul.
5. The main is furled by taking in on the main inhaul line, it is important to feed the out haul line as you furl the main.
6. **NOTE: NEVER TAKE IN ONE LINE WITHOUT KEEPING A LITTLE TENSION ON THE OPPOSITE LINE!**
7. The main may be reefed by turning the boat into the wind and furling the main up to the marked reef points on the sail.

13.15.7. Boom Kit For Roller Furling Mast (Hull # 44 and up)

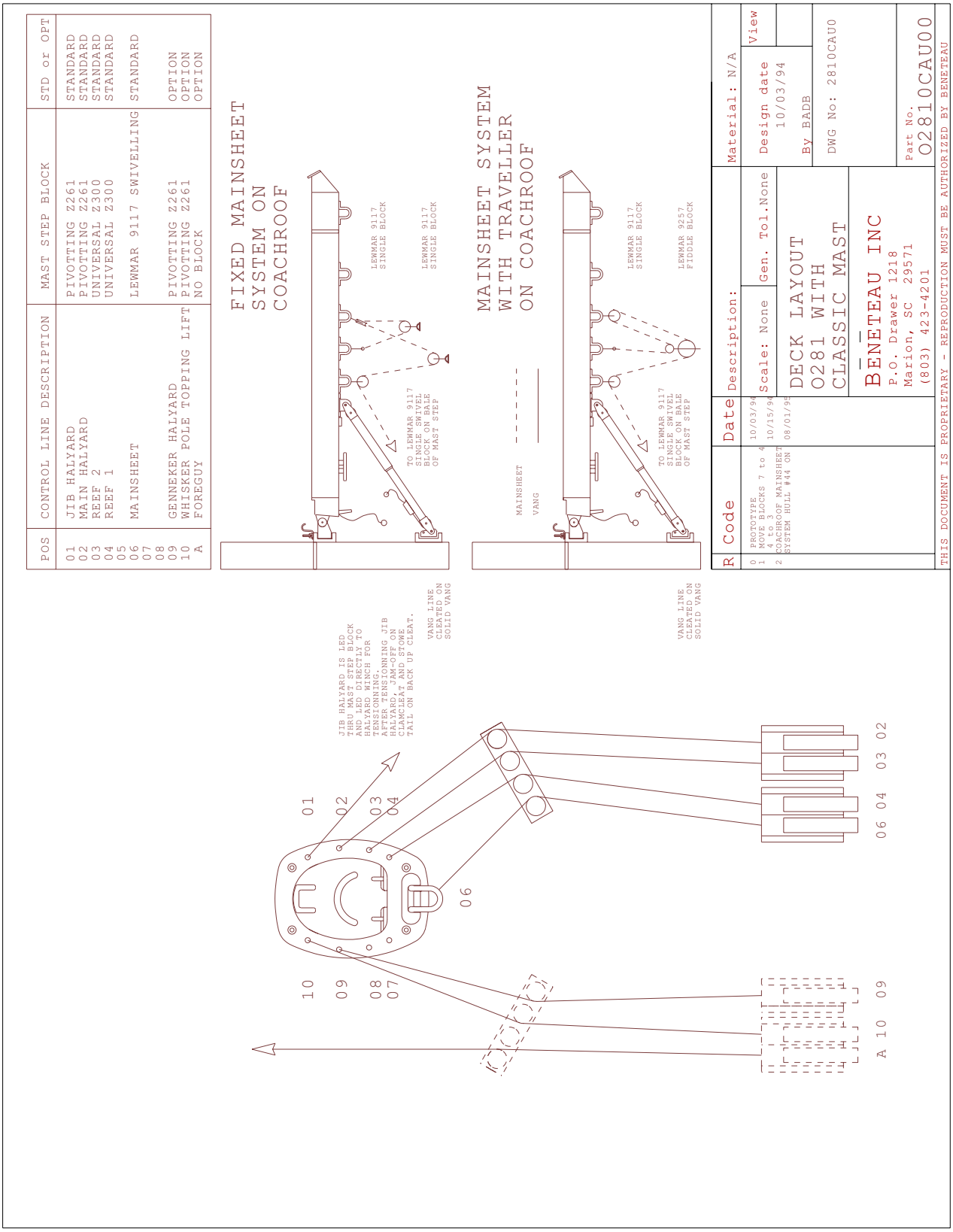


Z SPAR SECTION Z204E					
END	SHEAVE	LINE	COLOUR	DIA	LENGTH
GOOSENECK	PORT-MOST	EMPTY			
	PORT-INNER	EMPTY			
	STBD-INNER	EMPTY			
	STBD-MOST	OUTHAUL	RED	5/16"	13600
OUTBOARD	PORT-MOST	EMPTY			
	MIDDLE	OUTHAUL			
	STBD-MOST	EMPTY			

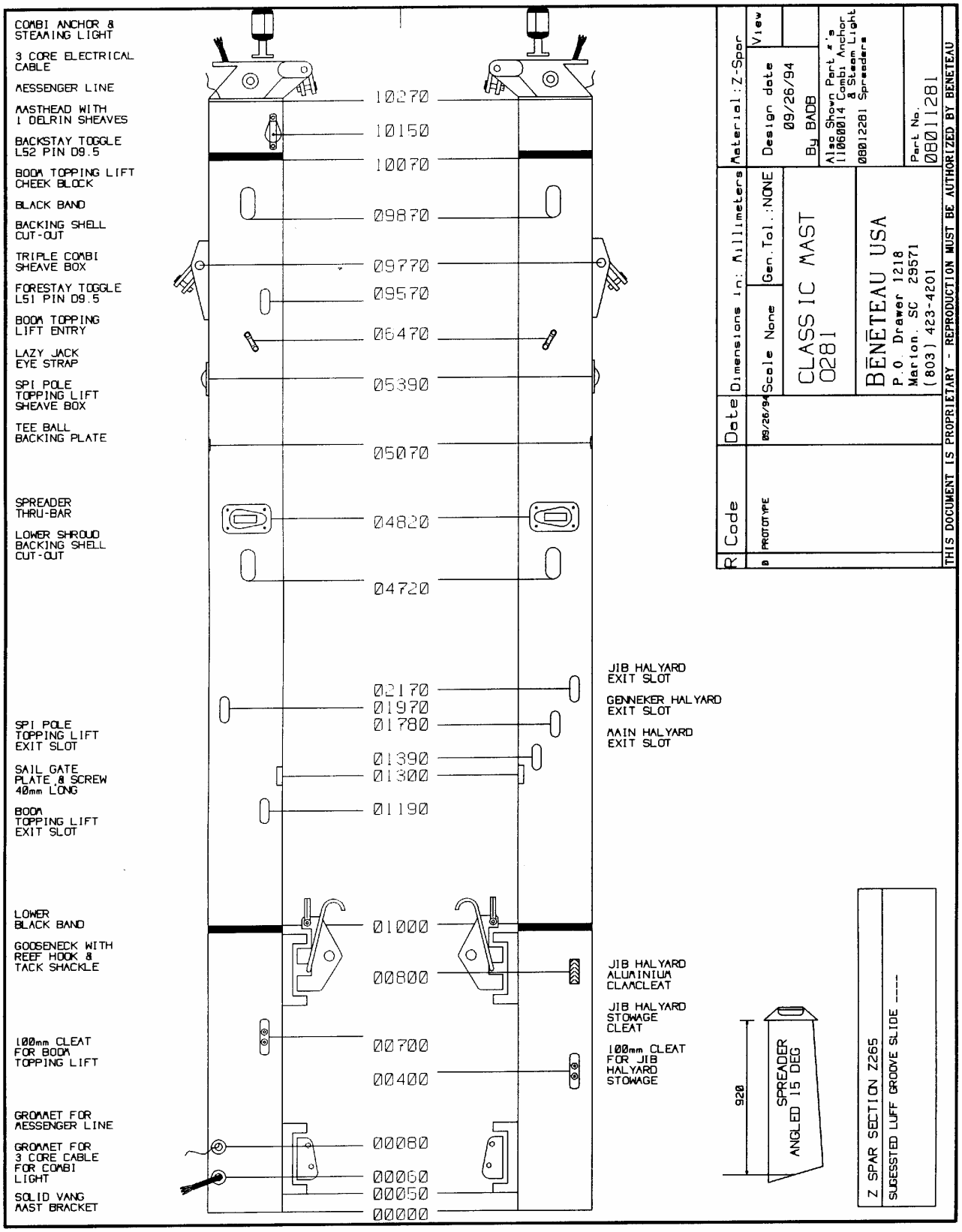
R	Code	Date	Dimensions in millimeters		Material: Z SPAR	View
			Scale N/A	Gen. Tol.N/A	Design date 08/16/95 By BADB	
0	PROTOTYPE	08/16/95	BOOM KIT ROLLER FURLING MID SHEETING O281		Part No. 08010284	

BENETEAU INC.
P.O. Drawer 1218
Marion, SC 29571
(803) 423-4201

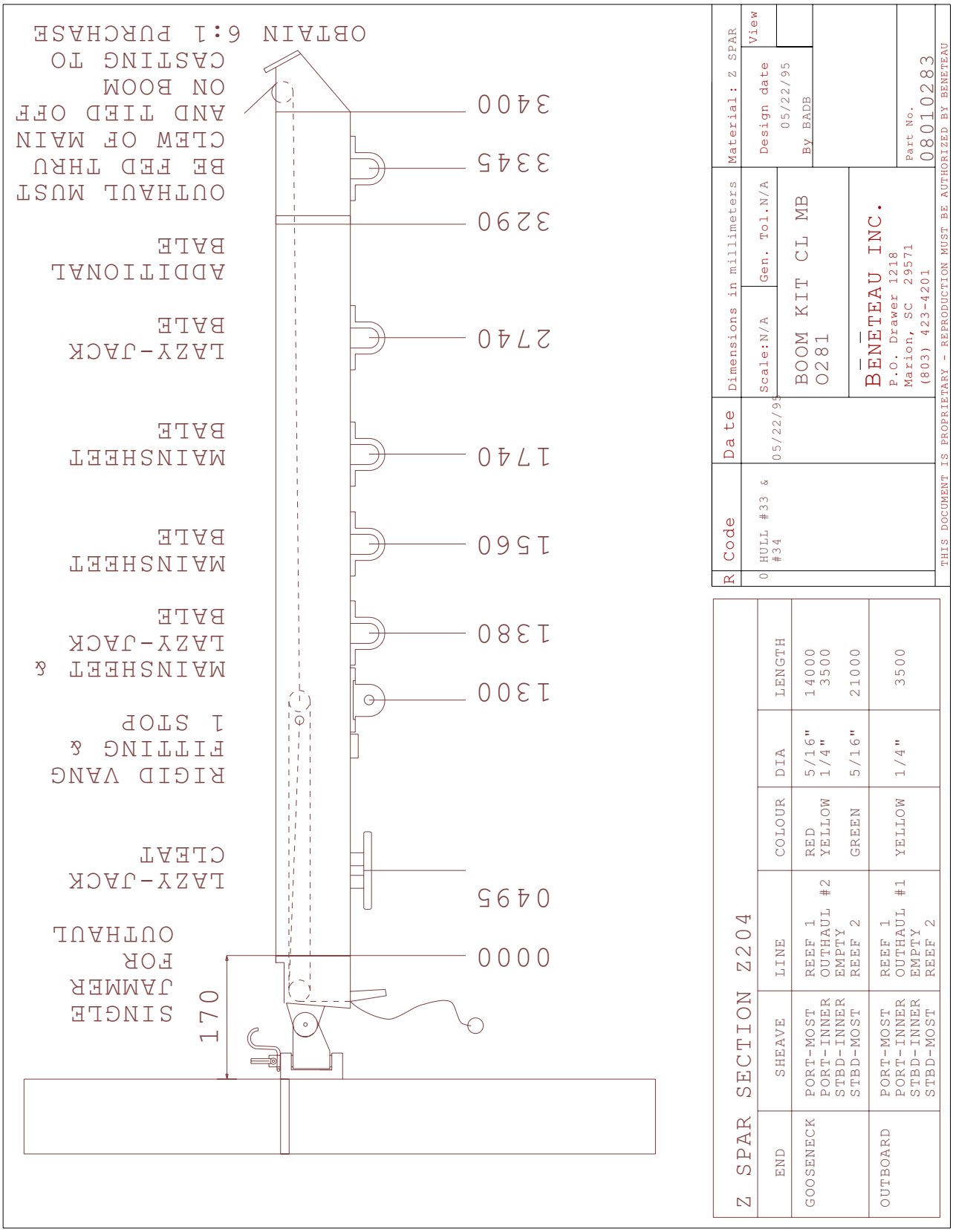
13.15.8. Classic Mast Deck Layout (Hull #44 and up)



13.15.9. Classic Mast



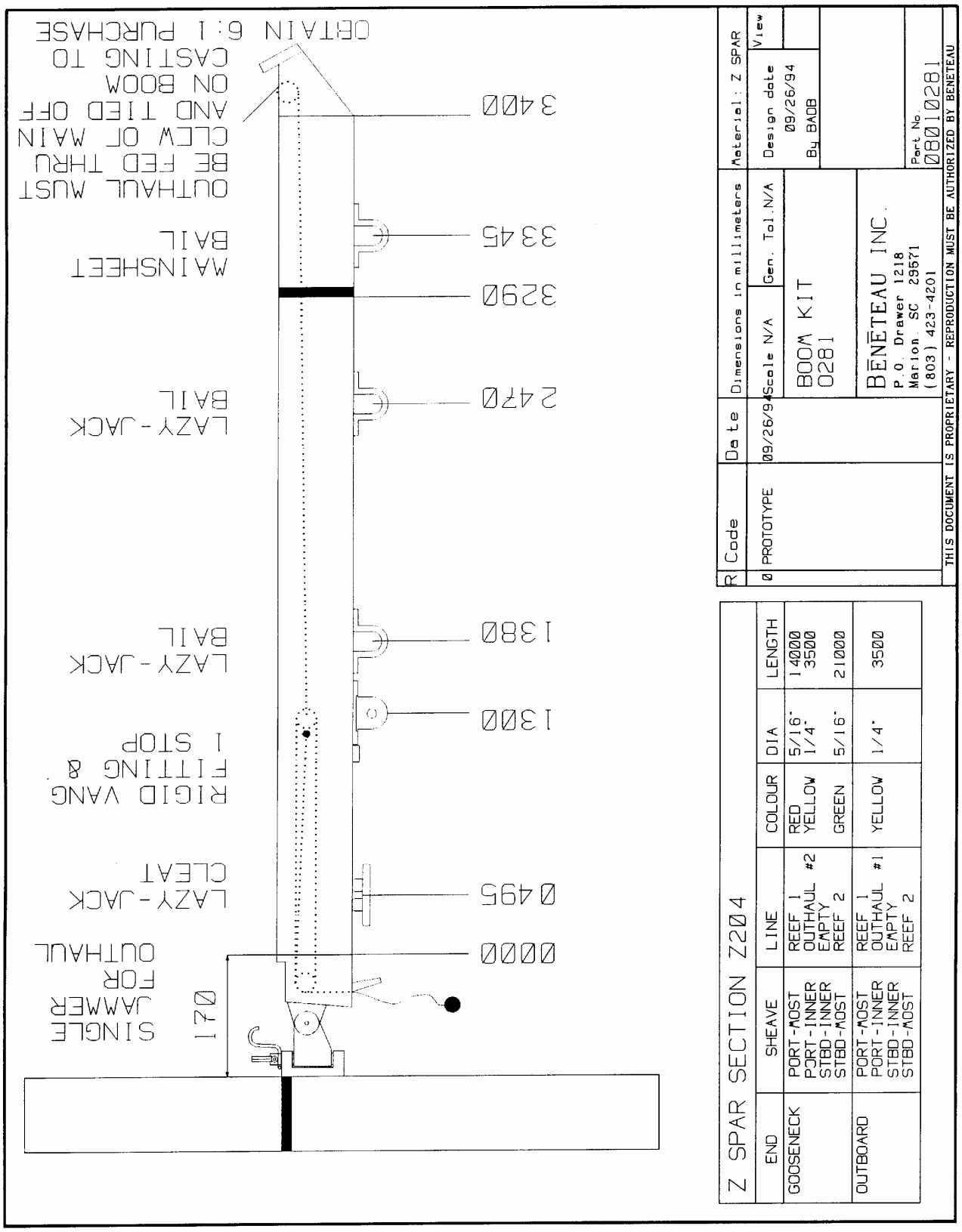
13.15.10. Boom Kit For Classic Mast Mid Boom Sheeting (Hull # 44 and up)



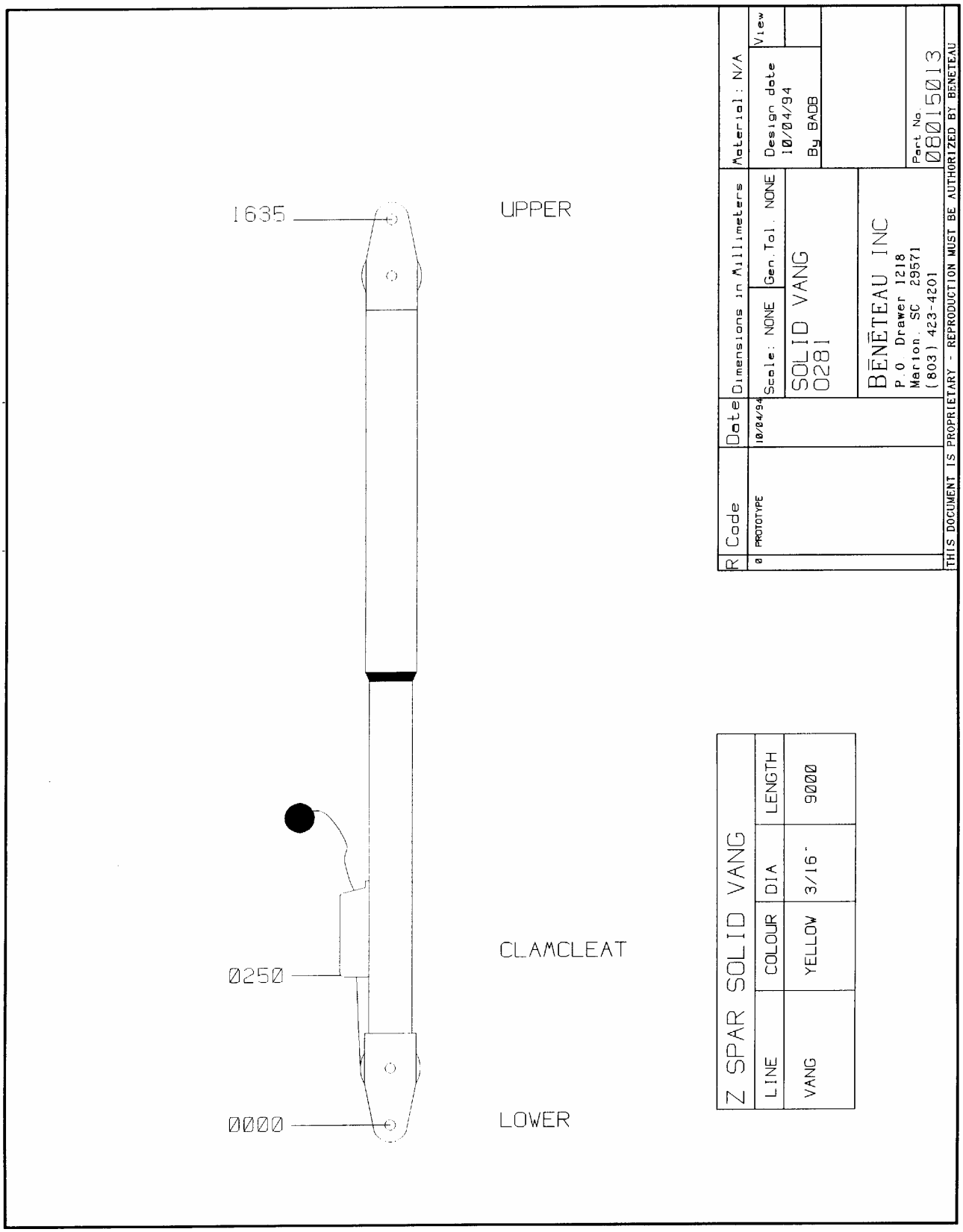
Z SPAR SECTION Z204

END	SHEAVE	LINE	COLOUR	DIA	LENGTH
GOOSENECK	PORT-MOST	REEF 1	RED	5/16"	14000
	PORT-INNER	OUTHAUL #2	YELLOW	1/4"	3500
	STBD-INNER	EMPTY			
	STBD-MOST	REEF 2	GREEN	5/16"	21000
OUTBOARD	PORT-MOST	REEF 1			
	PORT-INNER	OUTHAUL #1	YELLOW	1/4"	3500
	STBD-INNER	EMPTY			
	STBD-MOST	REEF 2			

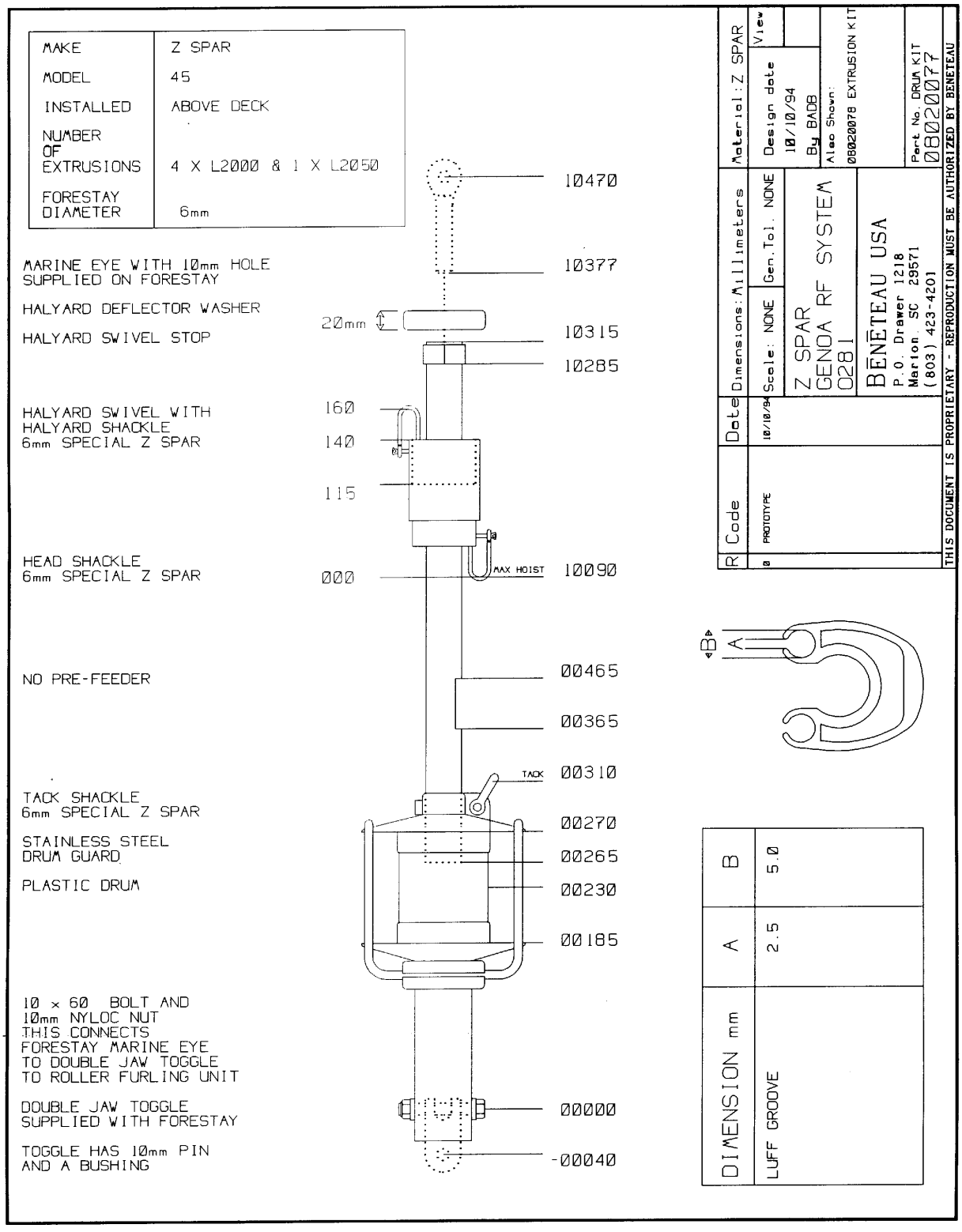
13.15.11. Boom Kit For Classic Mast End Boom Sheeting



13.15.12. Solid Vang



13.15.13. Genoa Roller Furling System



13.15.14. Rigging and Lifeline Specifications

13.15.14. Rigging and Lifeline Specifications

SYS	KIT PART No.	ITEM PART No.	REV	QTY	DESCRIPTION	MAKE & TYPE	COL.	TERMINAL 1	TERMINAL 2	NOTES	DIA	LENGTH mm
AC00		08030830	00	1	GENNEKER HALYARD	SAMSON XLS EXTRA	RED	SOFT EYE SNAPSHACKLE NF12000S	WHIPPING AND LOOP		5/16"	25250
AC01		08031066	00	1	GENNEKER TACK STROP	SAMSON LS	RED	SOFT EYE SNAPSHACKLE NF11000S	WHIPPING		3/8"	7000
AC02		08030911	01	2	GENNEKER SHEET	SAMSON XLS 900	RED	SOFT EYE SNAPSHACKLE NF12000S	WHIPPING		5/16"	18594
AC05		08030814	01	1	WHISKER POLE TOPPING LIFT	NE K900	GREEN	SOFT EYE SNAPSHACKLE NF12000S	WHIPPING AND LOOP		5/16"	20118
AC06		08030849	00	1	FOREGUY	SAMSON XLS 900	RED	SOFT EYE SNAPSHACKLE NF12000S	WHIPPING AND LOOP		5/16"	11750
AC10		08030850	00	1	JIB HALYARD #1	SAMSON XLS EXTRA	BLACK	SOFT EYE D SHACKLE CAPTIVE PIN 6mm	WHIPPING AND LOOP		5/16"	25000
AC12		08031030	00	2	JIB SHEET	SAMSON LS	BLACK	WHIPPING	WHIPPING		3/8"	11888
AC19			00	1	GENOA RF LINE	MARLOW	YELLOW	BURNT	BURNT		1/4"	20000
AC20		08030823	00	1	MAIN HALYARD - classic mast	SAMSON XLS EXTRA	GREY	SOFT EYE BAR SHACKLE CAPTIVE PIN	WHIPPING AND LOOP		5/16"	25604
AC20		08030851	00	1	MAIN HALYARD -	SAMSON XLS	GREY	SOFT EYE	WHIPPING AND LOOP		5/16"	25604
AC22		08030965	00	1	MAINSHEET - in cockpit	SAMSON LS	GREY	SOFT EYE	WHIPPING		3/8"	18000
AC22		08030975	00	1	MAINSHEET - on coachroof	SAMSON LS	GREY	SOFT EYE D SHACKLE 6mm	WHIPPING	hull #33, 34	3/8"	15000

AC25		08030615	00	1	MAIN BOOM TOPPING LIFT	SAMSON LS	WHITE	SOFT EYE BAR SHACKLE CAPTIVE PIN	WHIPPING AND LOOP		1/4"	21642
AC26			00	1	VANG LINE		YELLOW	BURNT	KNOT AND TIE BALL		3/16"	9000
AC27		08030806	00	2	MAINSHEET TRAVELLER CONTROL	SAMSON LS	WHITE	SOFT EYE	WHIPPING	hull #33, 34	5/16"	6000
AC28	08030506		00	2	LAZY JACK #1 LINE	SAMSON LS	WHITE	BURNT	SOFT EYE - mark black line 3450mm from eye		1/4"	3575
AC28	08030506		00	2	LAZY JACK #2 LINE	SAMSON LS	WHITE	TIGHT SOFT EYE ONTO 32mm ID SS RING	TIGHT SOFT EYE ONTO 32mm ID SS RING - pass thru soft eye of line #1 prior to attaching as		3/16"	3770
AC28	08030506		00	2	LAZY JACK #3 LINE	SAMSON LS	WHITE	TIGHT SOFT EYE ONTO ONE OF THE 32mm ID SS RINGS OF	BURNT - mark black line 650mm from tight soft eye		3/16"	750
AC28	08030506		00	2	LAZY JACK #4 LINE	SAMSON LS	WHITE	BURNT	BURNT		3/16"	4750
AC29			00	1	MAIN RF INHAUL LINE		GREEN	BURNT	BURNT		5/16"	14000
AC30			00	1	MAIN RF OUTHAUL		RED	BURNT	BURNT		5/16"	13600
AC30			00	1	OUTHAUL LINE #1 -		YELLOW	BURNT	BURNT		1/4"	3500
AC30			00	1	OUTHAUL LINE #2 -		YELLOW	BURNT	BURNT		1/4"	3500
AC31			00	1	REEF 1 - classic mast		RED	BURNT	BURNT		5/16"	14000
AC32			00	1	REEF 2 - classic mast		GREEN	BURNT	BURNT		5/16"	21000

AD01	08020137	00	2	BACKSTAY	SS 1x19	MARINE EYE - for classic mast must fit toggle supplied with mast - for RF mast must fit stemball eye and twin delta	3/8" STUD SWAGE + TOGGLE FORK TURNBUCKLE TB071212	1. measured marine eye to pin of turnbuckle toggle. 2. used on hull #1.	3/16"	11675
AD01	08020137	01	2	BACKSTAY	SS 1x19	MARINE EYE - for classic mast must fit toggle supplied with mast - for RF mast must fit stemball eye and twin delta plates supplied with mast.	SPECIAL 5/16" DOUBLE BODY TURNBUCKLE MADE UP OF ONE SWS0610 STUD SWAGE + ONE TBBO10 TURNBUCKLE BODY + ONE	1. measured marine eye to pin of turnbuckle toggle. 2. upper turnbuckle to be fully extended but pinnable. 3. lower turnbuckle to be 2/3 open.	3/16"	11640
AD01	08020137	00	2	V1D2 CAP SHROUD	SS 1x19	BACKING SHELL RBS07A + STEMBALL D20 HEAD D26 CUP WASHER	1/2" STUD SWAGE SWS0816 + TURNBUCKLE BODY TBBO16	1. measured from stemball swage to threaded stemball on chainplate.	1/4"	10401
AD01	08020137	00	2	D1 AFT LOWER	SS 1x19	BACKING SHELL RBS07A + STEMBALL D22 HEAD D26 CUP WASHER	1/2" STUD SWAGE SWS0816 + TURNBUCKLE BODY TBBO16	1. measured from stemball swage to threaded stemball on chainplate. 2. used on hull	9/32"	5262

AD01	08020137		01	2	D1 AFT LOWER	SS 1x19		BACKING SHELL RBS07A + STEMBALL D22 HEAD D26 CUP WASHER	1/2" STUD SWAGE SWS0816 + TURNBUCKLE BODY TBBO16	1. measured from stemball swage to threaded stemball on chainplate.	9/32"	5275
AD01		08020140	00	1	FORESTAY	SS 1x19		MARINE EYE 10mm HOLE	MARINE EYE 10mm HOLE + DOUBLE JAW TOGGLE WITH ONE D10 PIN ONLY - double jaw toggle	1. measured upper marine eye to pin of jaw and jaw toggle (10470 + 40mm toggle). 2. marine eye fits toggle supplied on	6mm	10510
AD01				1	BABYSTAY	SS 1x19		T BALL	5/16" STUD SWAGE + TOGGLE FORK	1. not standard. 2. measured T ball to pin of	5/32"	
BE01		08030616	00	1	UTILITY LINE	SAMSON LS	WHITE	BURNT	BURNT		3/16"	1500
BH03	03054015		00	2	LIFELINE UPPER	PVC COATED SS 7x7		ADJUSTER W/SHEAVE STS3U	PELICAN HOOK ABI1554	1. measured bearing point of sheave (adjuster 2/3 open) to bearing point of pelican hook. 2. gate stop	1/8" x 7/32"	6485

BH03	03054015	00	2	LIFELINE LOWER	PVC COATED SS 7x7	ADJUSTER W/SHEAVE STS3U	PELICAN HOOK ABI1554	1. measured bearing point of sheave (adjuster 2/3 open) to bearing point of pelican hook. 2. gate stop	1/8" x 7/32"	6145
BH03	03054015	00	1	STERN GATE	PVC COATED SS 7x7	JAW TOGGLE 1/4" PIN CSJ25304	PELICAN HOOK ABI1554	1. measured bearing point of toggle pin to bearing point of	1/8" x 7/32"	1745

13.15.15. Classic Mainsail

DOYLE OFFSHORE SAILS LTD

BOAT MODEL: **OCEANIS 281**

SAIL TYPE: loose footed, fully battened mainsail supplied with Stackpak Light stowage system

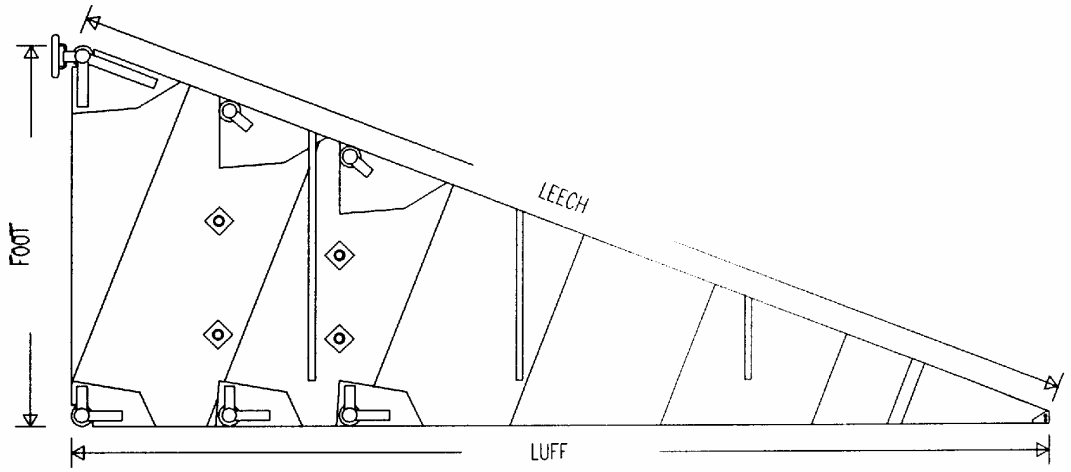
P = 9070mm **E =** 3460mm SAIL AREA 16.2 m²

LUFF min tension	8916mm	LUFF max tension (P)	9070mm
LEECH min tension	9449mm		
FOOT min tension	4090mm	FOOT max tension (E)	3460mm

BATTEN	TYPE and width or diameter	LENGTH
UPPER	5/8" flat medium stiffness	863mm
MIDDLE	5/8" flat medium stiffness	1676mm
LOWER	5/8" flat medium stiffness	2438mm

HEIGHT REEF 1 from tack 1372mm HEIGHT REEF 2 from tack 2743mm

ITEM TO DETAIL	ITEM QUANTITY, SIZE, TYPE, MAKE and PART NUMBER
SAILCLOTH	245 g/m²
HEAD	aluminium headboard 4" x 1/16" Aquabatten B809
TACK	1" x 3/16" SS round ring webbed-on, cut back = 51mm ,cut up =
TACK - reef 1	1" x 3/16" SS round ring webbed-on, cut back = 90mm, cut up =
TACK - reef 2	1" x 3/16" SS round ring webbed-on, cut back = 90mm, cut up =
CUNNINGHAM	none
CLEW	1 1/4" x 1/4" SS round ring webbed-on - cut up = , also webbed-on to clew slide Aquabatten A032
CLEW - reef 1	Inox pressed ring #211, single webbing strap
CLEW - reef 2	Inox pressed ring #211, single webbing strap
LUFF - slides	plastic slug slide Aquabatten A016 pop-shackled to luff with Aquabatten A023 pop-shackles
LEECH - line cleat	aluminium Clamcleat CL241
INSIGNIA	none
TELLTALES	2 telltales on leech at top 2 battens
DRAFT STRIPE	none



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13.15.16. Roller Furling Mainsail

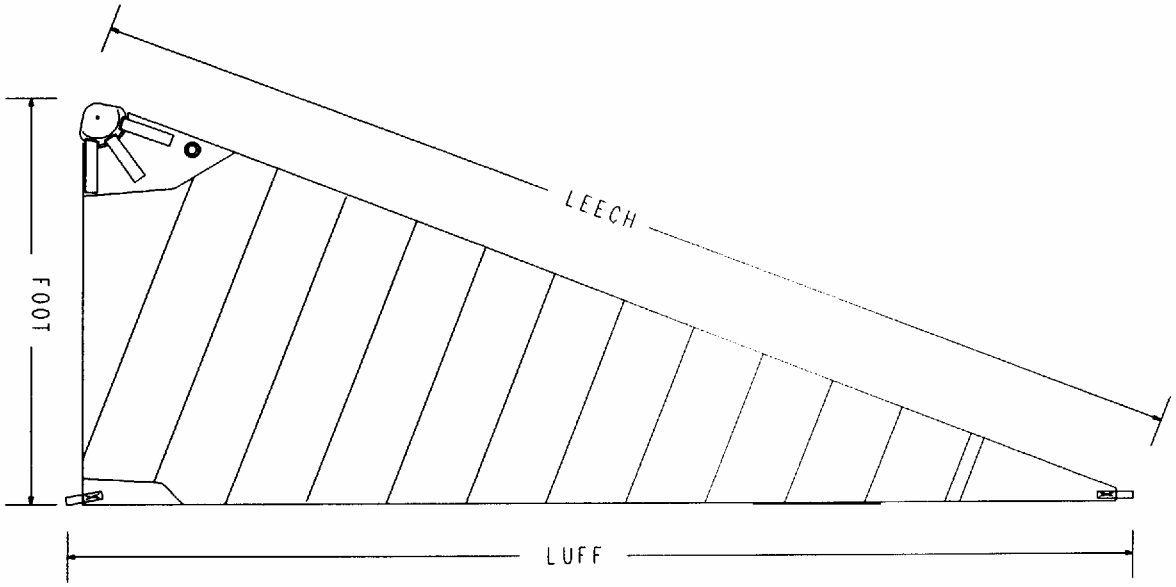
DOYLE OFFSHORE SAILS LTD

BOAT MODEL: **OCEANIS 281** SAIL TYPE: roller furling mainsail

P = 9070mm **E =** 3460mm SAIL AREA 15.1 m²

LUFF min tension	**8940mm**	LUFF max tension (P)	9070mm
LEECH min tension	**9373mm**		
FOOT min tension	**3405mm**	FOOT max tension (E)	3460mm

ITEM TO DETAIL	ITEM QUANTITY, SIZE, TYPE, MAKE and PART NUMBER
SAILCLOTH	245 g/m²
HEAD	25mm webbing loop
TACK	25mm webbing loop
CLEW	webbed-on clew block Seasure 04-87
CLEW - safety ring	Inox pressed ring #211
LUFF - bolt rope	#6 luff tape (3/16")
LEECH - line cleat	aluminium Clamcleat CL241
UV COVER	UV clew patch 245g/m² both sides
INSIGNIA	none
TELLTALES	2 telltales on leech
DRAFT STRIPE	none



13.15.17. Roller Furling Genoa

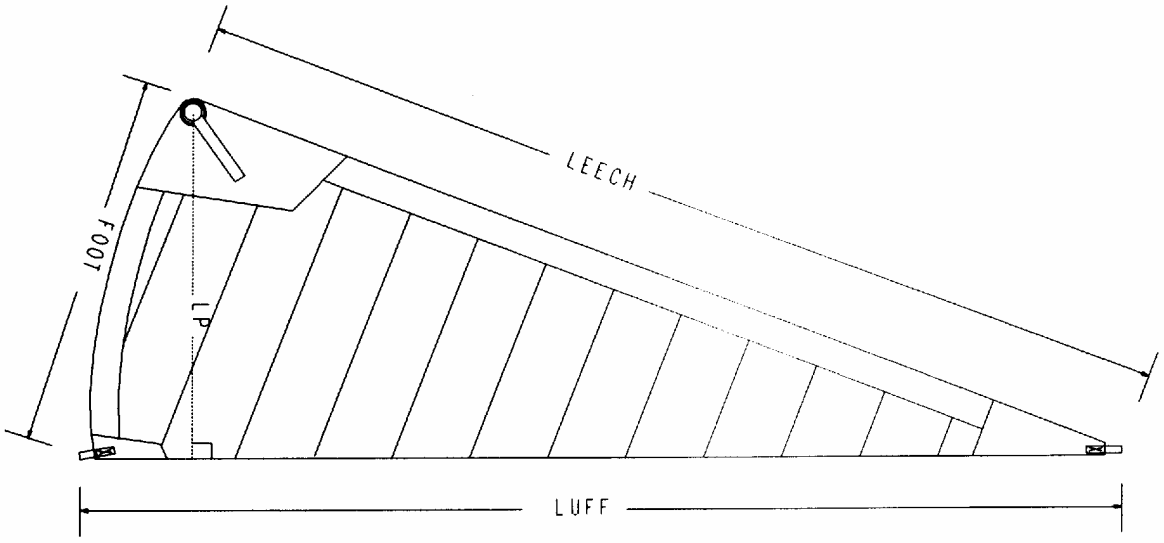
DOYLE OFFSHORE SAILS LTD

BOAT MODEL: **OCEANIS 281** SAIL TYPE: roller furling genoa

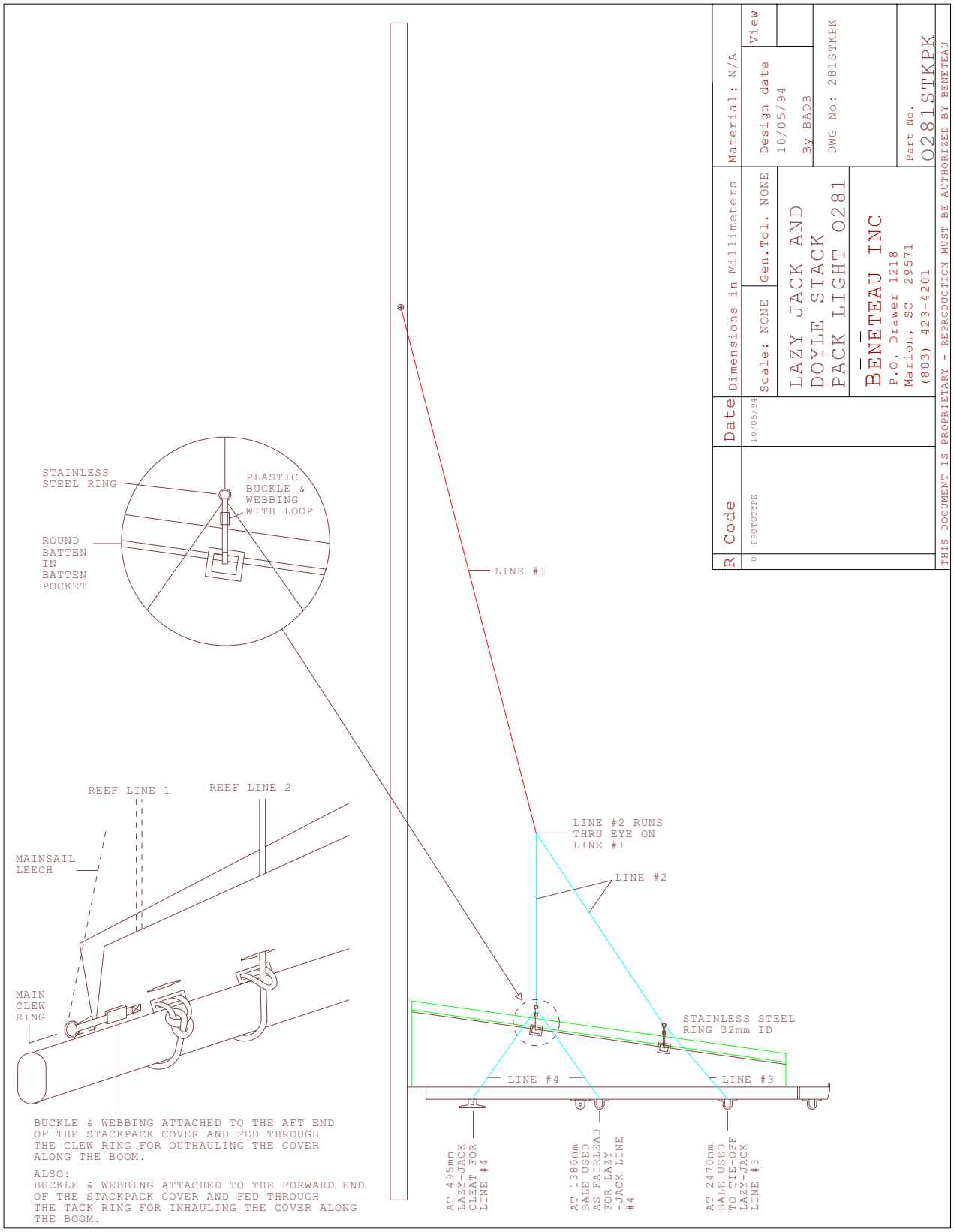
I =	10160mm	**J =**	3070mm	SAIL AREA	20.5 m²	LP =	4298mm	% SIZE	140

LUFF min tension	**9577mm**	LUFF max tension	9780mm
LEECH min tension	**9016mm**		
FOOT min tension	**4596mm**		

ITEM TO DETAIL	ITEM QUANTITY, SIZE, TYPE, MAKE and PART NUMBER
SAILCLOTH	245 g/m²
HEAD	25mm webbing loop
TACK	25mm webbing loop
CLEW	Inox pressed ring #212, single webbing strap
LUFF - bolt rope	#5 luff tape (5/32")
LEECH - line cleat	aluminium Clamcleat CL241
UV COVER	UV leech and foot 170g/m² starboard side only
FOOT - line cleat	2 grommets for lashing - #3 grommets
INSIGNIA	none
TELLTALES	telltales at 25%, 50% and 75% of luff height
DRAFT STRIPE	none



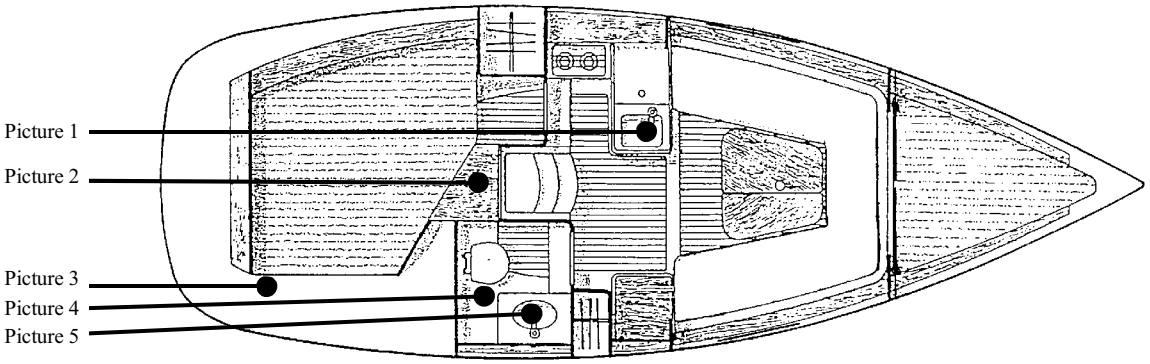
13.15.18. Stack Pack Light Installation



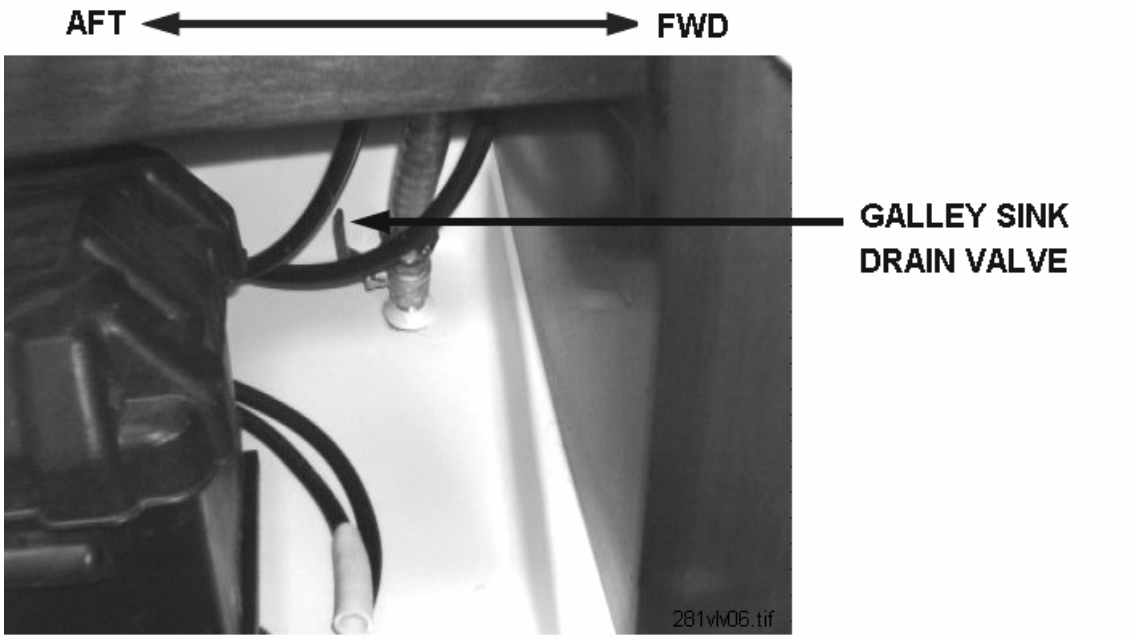
APPENDIX

LOCATIONS

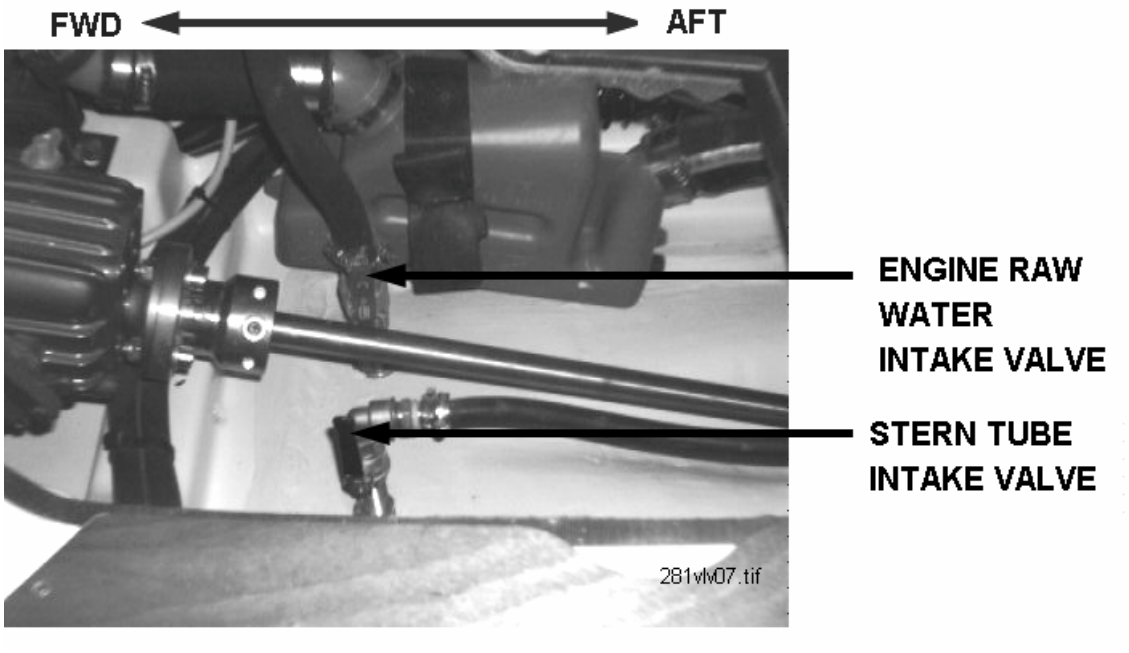
- Intake and Discharge Thru Hull Valves
- Cockpit Shower Supply Valve
- Waste Tank Vent Valve



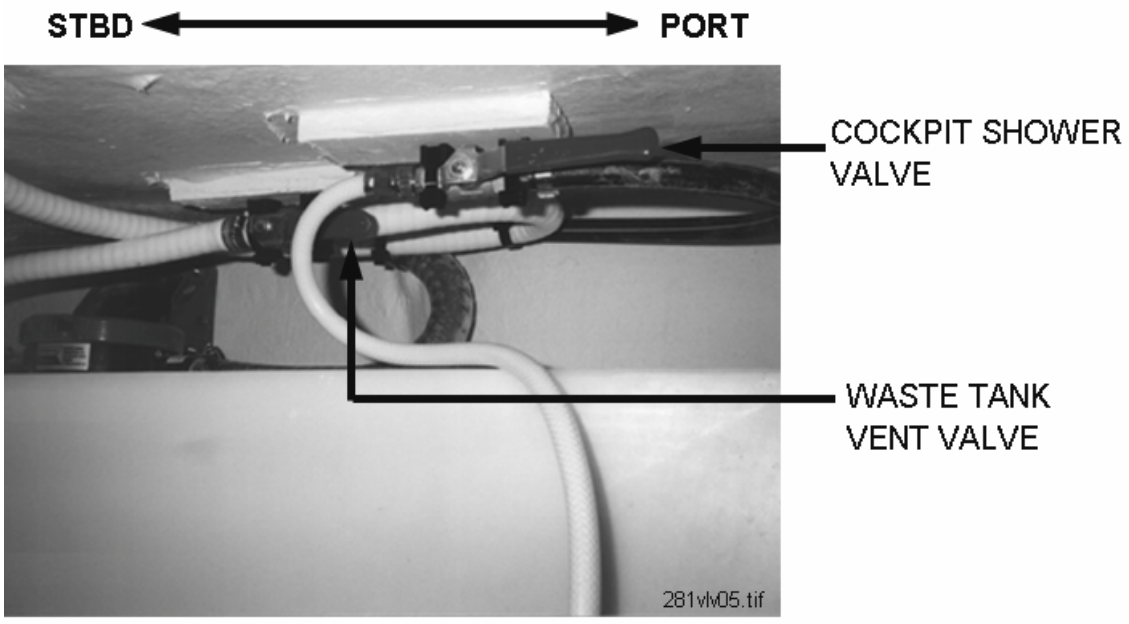
NOTE: THRU HULL VALVES SHOULD BE CLOSED WHEN NOT IN USE!



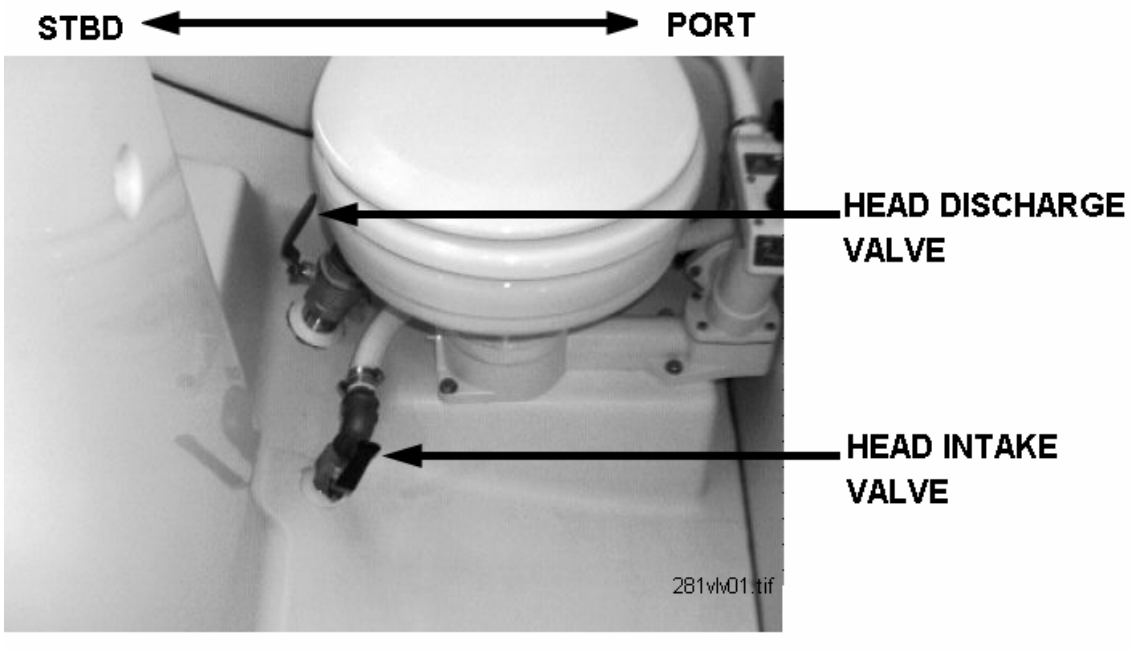
PICTURE 1
UNDER GALLEY SINK



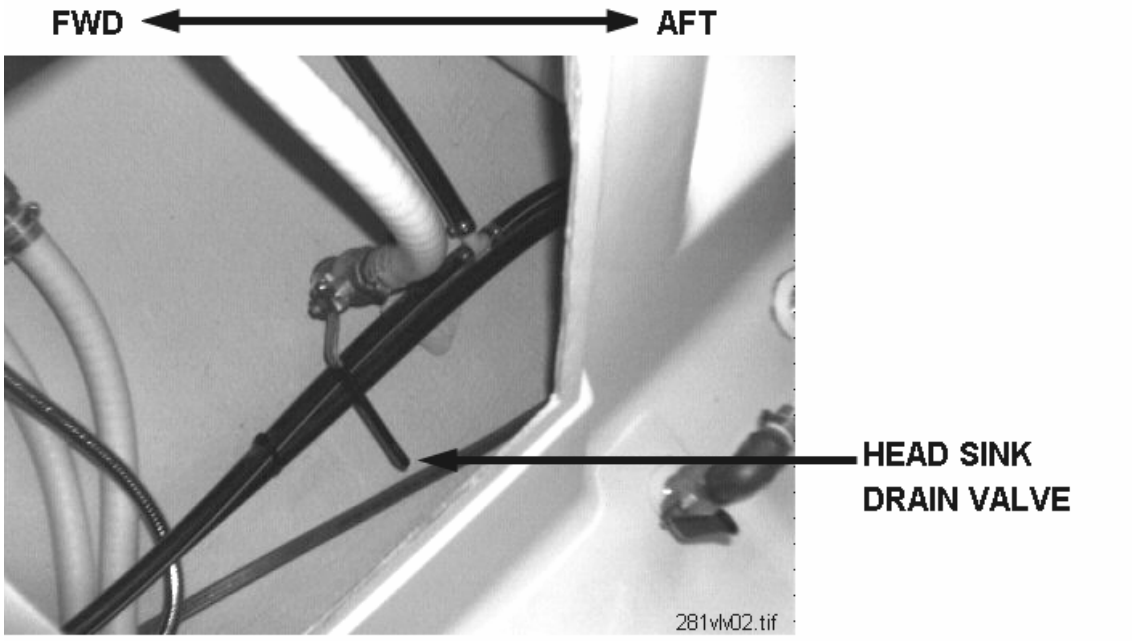
PICTURE 2
UNDER AFT PORT CABIN BUNK



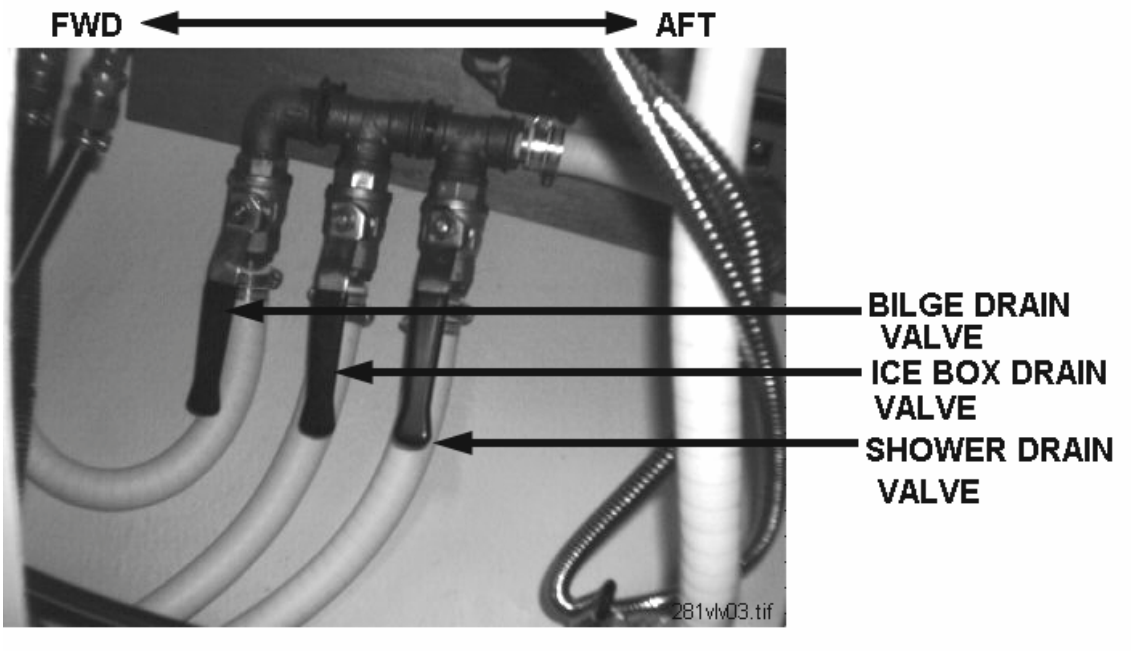
PICTURE 3
UNDER AFT STBD COCKPIT LOCKER



PICTURE 4
INSIDE AFT STBD HEAD

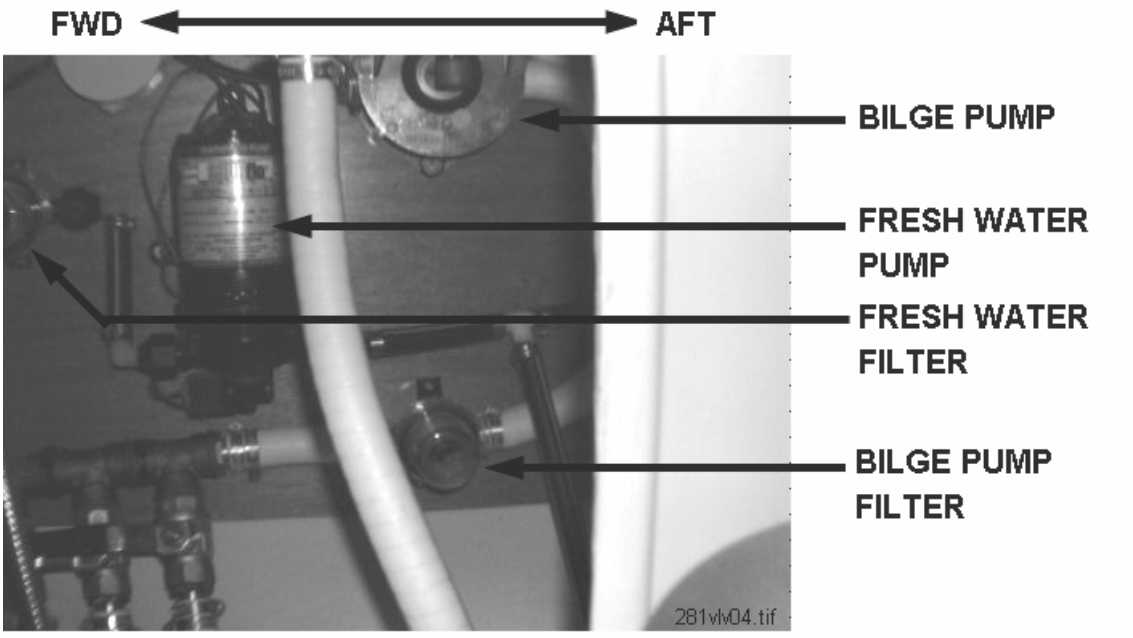


PICTURE 5
UNDER HEAD SINK



PICTURE 5
UNDER HEAD SINK

NOTE: ONLY ONE OF THESE VALVES SHOULD BE OPEN DURING NORMAL PUMP OPERATION.



PICTURE 5
UNDER HEAD SINK