

OWNER'S MANUAL

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ERICSON 29 OWNER'S MANUAL

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INTRODUCTION

Welcome to the growing family of Ericson Yacht owners. In selecting an Ericson, you have expressed a vote of confidence in the boatbuilding skills we have developed over the last decade of producing the finest sailing yachts available.

We appreciate your choice and will make every effort to sustain your confidence through a vigorous program of factory and dealer support.

We have included this owner's manual to guide you through the initial period of unfamiliarity with the operation and systems of your new Ericson and to serve as a continuing resource of information for future reference.

We urge you to thoroughly read this manual, paying particular attention to the section on safety and any accompanying optional accessory literature, and closely follow the suggested recommendations to assure the most enjoyable and trouble-free operation of your Ericson Yacht.

ERICSON YACHTS, INC.

OWNER'S RESPONSIBILITY

As the owner of a new Ericson, you share a joint responsibility with the dealer from whom you purchased your yacht in assuring that it is properly commissioned and aiding in the later correction of any defects discovered during the warranty period. By mutual cooperation, such matters can be resolved more quickly.

During production, your yacht was subjected to many quality control inspections, culminating in a test launching in the Ericson pool where the boat was completely rigged, the engine run under load and the onboard systems checked out. When your vessel was shipped, it was done with a confidence that it met our exacting standards for construction quality and attention to detail. Even with our dedication to quality control, it is possible that flaws in construction caused through human error could have gone unnoticed, or some item of equipment supplied by parts contractors might be defective. In addition, during the rigors of truck shipment it is possible that minor problems may have developed which will require correction.

It is *now*, at the time of commissioning that you and your dealer need to uncover and correct as many problems as possible. To facilitate a thorough inspection of your new Ericson and its accessories and to assure that it is in proper condition, the enclosed commissioning check list *must* be completed and signed by both you and the dealer and returned to Ericson Yachts along with the signed warranty *before* any coverage is afforded under the Ericson Limited Warranty and before your yacht will be released.

It is our intention to provide the finest customer service through our dealers. By completing the warranty requirements you will greatly assist us to do so.

After you have sailed your new yacht for a while it is possible that minor problems may develop which require correction. Common sense will dictate which problems are the result of normal use and which deserve dealer attention. For example: it is not unusual for a new boat to require some additional bedding around chainplate and stanchion bases after the first few outings. This is the result of the stress of normal use and is easily corrected by the owner applying extra bedding compound to the affected areas.

While we do encourage a common sense approach in discerning which areas of repair and maintenance should be accomplished by the owner, we do stand ready at both dealer and factory level to provide the finest customer support and parts service under the terms of our warranty.

With respect to replacement parts; we stock a complete inventory of the specialty items manufactured by Ericson Yachts to fit your particular model. It is often more convenient to purchase such standard items as turnbuckles, screws and blocks through your local marine hardware store or yacht equipment catalog. For specialty items peculiar to your boat, our parts department is available to meet your needs.

Additionally, we have included in this manual, names and addresses of our suppliers who produce

many of the component parts installed on your yacht. Prompt service is available from them direct for parts and information on equipment manufactured by them. Often, their warranty requires that warranty service is to be performed by their factory or designated service representatives exclusively. If you have difficulty in securing such service please contact your dealer.

DEALER'S RESPONSIBILITY:

The dealer from whom you purchased your new yacht is your best source of information regarding its operation. He was appointed as a dealer by Ericson Yachts based partly on his ability and capability to provide service to you, the new Ericson owner. In this capacity he will prove invaluable in assuring that your new yacht has been properly rigged and commissioned to your satisfaction. It is *extremely* important that you and the dealer jointly complete the enclosed commissioning check list and warranty registration form, signing and returning both *before* your boat is released.

In addition to his commissioning role, your dealer is an authoritative source of information on the handling characteristics, systems and safety features of your yacht and should be used as an information resource during your first days of ownership.

We ask your cooperation in allowing the dealer adequate time to perform his service and commissioning duties. A yacht which has optional systems and equipment will take an additional amount of time for a proper systems check out and commissioning.

It is also the selling dealer's responsibility during the warranty period to furnish guidance and information on matters pertaining to service and maintenance, as well as handle and process *all* claims for warranty.

It is the obligation of the dealer to assume warranty responsibility for any equipment that is added at dealer level, to include any subsequent or consequential effect on the performance of the boat's handling, systems or operation.

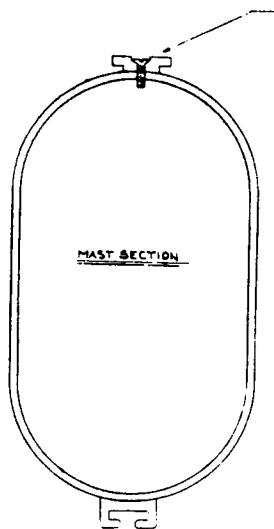
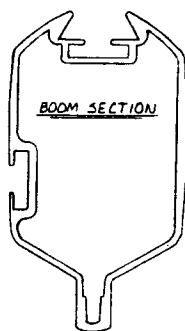
It is the responsibility of the dealer to screen any and all applications for warranty work which fall under "Item 5" of the Ericson Limited Warranty (equipment and accessories not manufactured by Ericson Yachts, Inc.) submitting any claims which exist under this category to the nearest original equipment manufacturer as shown in the list of OEM accessory suppliers, enclosed in the owner's manual.

The processing of claims against the transportation company for damage incurred during shipment, either by deliberate acts of vandalism or normal in-transit hazards is the selling dealer's responsibility. All yachts are sold F.O.B. factory.

Your Ericson dealer welcomes any questions you may have pertaining to your new yacht. Please feel free to contact him.

In this manual there are two copies of the standard Ericson Warranty Claim Application. Please read it, and if the need arises complete the application and requirements as outlined.

SAIL AND RIGGING PLAN



STANDARD RIG

Main 6.5 oz/183 sq ft/17 sq m
 Working jib 6.5 oz/161 sq ft/14.96 sq m
 120% Lapper 6.5 oz/253 sq ft/23.5 sq m
 150% Genoa 3.8 oz/342 sq ft/31.8 sq m
 170% Genoa 3.8 oz/387 sq ft/36 sq m
 Spinnaker 3/4 oz/700 sq ft/65 sq m

J 12.24'/3.73 m
 P 30.54'/9.31 m
 E 12.04'/3.67 m
 I 36.50'/11.13 m

Design waterline to masthead . 40'5"/12.19 m
 Mast rake 10" aft/0.25 m

TALL RIG

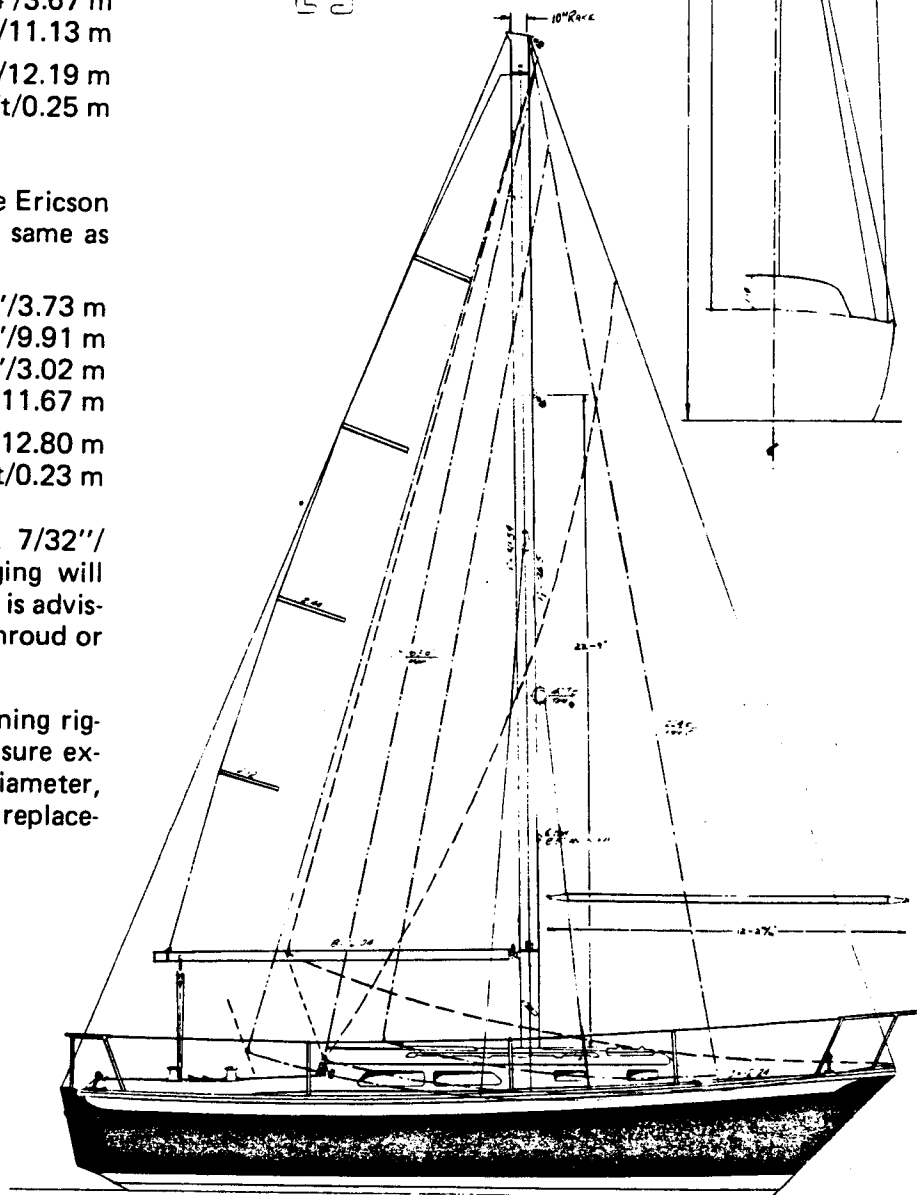
An optional tall rig is available on the Ericson 29. Mast and boom sections are the same as the standard rig.

J 12.25'/3.73 m
 P 32.50'/9.91 m
 E 9.92'/3.02 m
 I 38.30'/11.67 m

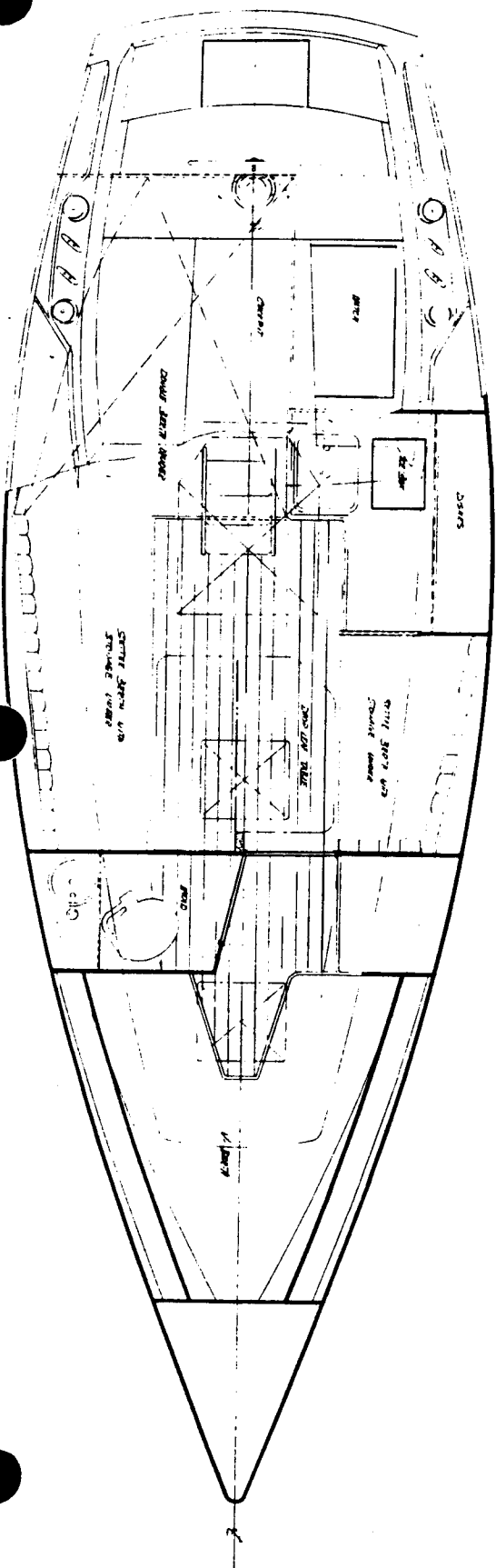
Design waterline to masthead . 42'4"/12.80 m
 Mast rake 9" aft/0.23 m

Standing rigging: 1 X 19 stainless, 7/32"/5.6 mm diameter. As standing rigging will vary somewhat from boat to boat, it is advisable to accurately measure existing shroud or stay when ordering a replacement.

Running rigging: When replacing running rigging it is advisable to accurately measure existing halyard, sheet or guy for diameter, length and line type before ordering a replacement.



L.O.A.	28' 7"/8.71 m	Headroom	6' 2"/1.88 m
L.W.L.	22' 0"/6.71 m	Displacement	8,500 lb/3,859 kg
Draft	4' 4"/1.32 m	Ballast (lead)	3,900 lb/1,771 kg
Beam	9' 3"/2.82 m	IOR (150% LP)	20.6



GENERAL MAINTENANCE

SAILS:

Since the sails are the principal source of propulsion of your new Ericson, it is important that they receive regular attention and tender loving care. Things to guard against are:

Chafe:

Whether it is a broken shroud or unprotected spreader end which chafes against a sail it is an uneven match. Even though modern sail cloth is extremely strong it will wear rapidly if in regular contact with any sharp object. Look your rig over carefully while under sail and if you detect areas of possible chafe, correct them. Rubber spreader boots or tape will prevent spreader chafe on headsails sheeted in tight. Taping exposed cotter pins in turnbuckles and installing plastic piping on shrouds will reduce the possibility of chafing. If you detect evidence of chafe or broken stitching, ordinary adhesive tape can be used to effect temporary repairs until the sail can be taken to a sailmaker for permanent repair.

Sunlight:

Modern sails are relatively immune to deterioration or rot caused by wetness, but they are subject to potential damage if stored exposed to direct sunlight for long periods of time. It is recommended that the main be stored under a mainsail cover (optional) with the battens removed and outhaul slackened. If the main was reefed, be sure to shake out the reef before furling to relieve the strain on both tack and clew cringles. Headsails should be stripped of sheets, bagged using large folds parallel to the foot and stored below.

Dirt and Salt:

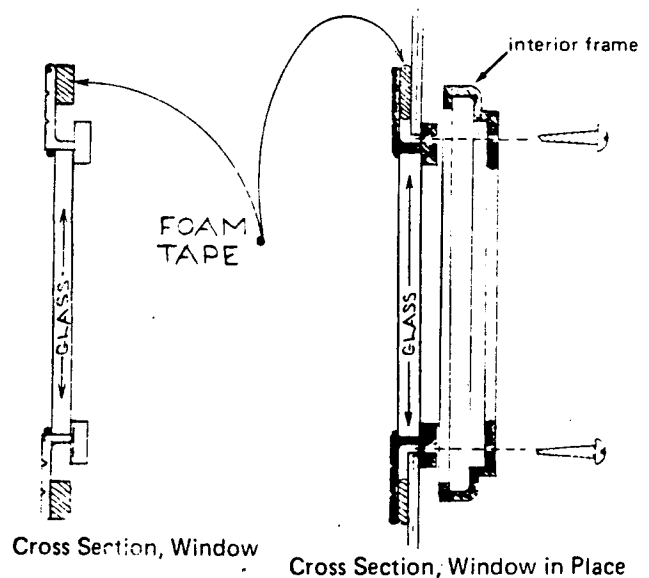
Sails which become dirty or encrusted with dried salt should be cleaned. On a warm calm day, hoist the sails and thoroughly hose them off with fresh water, allowing them to dry before storing. If they become exceptionally dirty, your sails can be spread out on a clean driveway and washed using a mild detergent, soft brush and lots of fresh water. **UNDER NO CIRCUMSTANCES SHOULD YOU PUT YOUR SAILS IN A WASHER OR DRYER.**

FIBERGLASS - MAINTENANCE:

The glossy outer surface of your Ericson is known as "gel-coat." It is a polyester resin combined with a coloring agent and should be kept clean using lots of fresh water and occasionally some mild detergent. Use a stiff brush to clean non-skid areas and a sponge on smooth surfaces. **DO NOT** use any abrasive cleaners or scouring pads. At least once a season the smooth gel-coat surfaces should be waxed and polished with a good quality boat wax, designed for fiberglass.

WINDOWS, OWNER MAINTENANCE:

The windows on your new Ericson are constructed in two halves. The exterior half which holds the window pane itself has a lip which overlaps the cut-out in the house side and compresses a strip of closed-cell tape, providing the primary seal between frame and house. An interior aluminum frame which overlaps the inside of the house is fastened to the exterior frame with machine screws.



After a period of sailing, it is possible that some minor leaks may develop at the windows as they are designed to "float" on the foam tape strip. Any water which enters may be channeled between the hull and interior liner, finding its way aft to appear as a leak above the galley or quarterberths.

If water is detected in these areas or at the window itself, the interior machine screws should be loosened and the exterior window frame removed. Check the foam tape to be sure that it is soft and pliable and that it overlaps at the bottom joint. If cracking or ageing is detected, replace it with a

Windows, Owner Maintenance:, cont'd

similar type of *closed cell* foam tape which is available at many marine hardware stores.

While the exterior window frame is out, check for possible areas which might cause a leak, by gently probing the seal between glass and aluminum with a screwdriver, being careful not to damage the seal material. Check the areas where the aluminum frame is joined and if any cracks are detected, apply a liberal amount of silicon sealer to the required areas and re-assemble the window halves.

If a leak is detected in the galley area or over a quarterberth, it may be necessary to check all of the windows on that particular side of the boat before the source of the leak may be pinpointed and corrected.

The repair of minor leaks at windows resulting from normal use is considered a part of reasonable and necessary owner maintenance.

WOOD SURFACES:

All exterior wood trim on your new Ericson is teak. It should be occasionally sanded using sandpaper or bronze wool and oiled using a good grade of teak oil. Regular oiling will enhance the color of the teak and reduce the chance of splitting.

DECK HARDWARE:

Keep all of the deck hardware clean, using fresh water and drying with a chamois or rags. Some items of hardware such as chainplates, stanchions and winches are subject to heavy loads and may need to be rebbed using a good grade of bedding compound. Service the winches according to the instructions in the enclosed winch manufacturers brochure.

INTERIOR:

The interior appointments on your new Ericson may be treated much like home furnishings. Keep all surfaces clean and bilges and lockers well ventilated to assure that the boat remains fresh and sweet smelling. The interior teak should be occasionally re-oiled to preserve the wood.

SPARS:

Your Ericson has an extruded aluminum mast and boom. Both spars have a hard, long lasting coating of anodize which should be kept clean using warm soapy water and a soft cloth. **DO NOT** use abrasive scouring powders or metal soap pads as they will scratch the finish. Applying a good grade of paste wax will help preserve a high lustrous finish.

You should routinely inspect the mast, paying close attention to dents and scratches. The sheaves for main and jib halyards should be checked for free operation and if necessary their pin bearing surfaces lightly greased. In addition check all nuts, bolts, screws, cotter pins and blocks. Make sure that the spreader ends are well covered with rubber boots or rigging tape to protect the sails from chafe or tearing.

When not sailing, always keep the halyards tied away from the mast as it will protect the finish and also do away with the din created by their slapping.

TUNING RIG:

Under no circumstances should your rigging be set up "bar tight". For all sailing conditions the rigging should be firm with the mast vertical and in column. The headstay and backstay should be of equal tension and have 1" to 2"/25.4 mm to 50.8 mm of play. Upper shrouds should have 1" to 2"/25.4 to 50.8 mm of play, while the lowers should have 2" to 3"/50.8 to 76.2 mm, with the forward lowers slightly tighter than the after lowers.

For a final tuning, sail the boat to windward in a breeze of 8 to 10 knots/14.8 km/hr to 18.5 km/hr, sighting up the sail slides (backside of mast) to assure that it is vertical and in column. The masthead should not fall off or hook to windward. Make any turnbuckle adjustments on the leeward side, tack and recheck for straightness.

After a few tacks the mast should be straight. Secure the turnbuckles by inserting cotter keys and tape them to prevent any snags or sail chafe. Standing rigging will stretch, so the rig tune should be rechecked after the first few months of sailing.

STANDING RIGGING:

All the standing rigging on your Ericson is high quality 1x19 stainless wire. Under normal conditions and with proper owner maintenance it will last indefinitely. A wise skipper should still make regular inspections of each stays' integrity, paying special attention to broken, rusty or dry strands. If any are discovered, the stay should be immediately replaced.

It is wise to regularly wipe down all of the rigging with a damp rag to remove accumulated dirt and grime which otherwise might get on the sails.

Routinely check the barrels of the swage fittings which connect the rigging wire to the turnbuckles for tiny cracks which result from water penetrating the fitting and causing it to expand. If discovered, the stay should be immediately replaced.

Check turnbuckles for excess wear, especially the threaded area. It is good policy to routinely oil and operate the turnbuckles to keep the threads free from rust or corrosion.

Regularly inspect all cotter pins for condition, replacing where necessary.

RUNNING RIGGING:

Before each sail, every halyard sheet and guy should be given a once-over to check for evidence of wear or fraying. Areas of special concern should include: spots where halyards chafe while turning over masthead sheaves and wear points where sheets enter blocks or rub on shrouds. If excessive wear is detected, replace the worn item of running rigging with one identical in length and line type.

If the halyards are combination wire/rope, it is advisable to regularly check the wire portion for loose, dry or broken strands (fish hooks) as they may cause damage to sails or injury to crewmembers.

Cut and burn any frayed ends on any of the running rigging which may require it, as it will prevent further unravelling of the line. Salt spray will tend to stiffen dacron, so it is wise to occasionally hose off running rigging and annually soak it overnight in a bucket of warm soapy water to remove any dirt accumulated from airborne pollutants.

VANG:

One item of running rigging which should be considered as an excellent bit of safety gear is a vang/preventer. Many sailors consider the vang only in light of its use on racing boats where it is employed to control draft and flatten the mainsail. It can serve an equally important function on boats which are purchased primarily for family cruising in that it will reduce the chance of injury in case of accidental jibing. When running well off before the wind in a sloppy sea condition, even the most competent helmsman may cause an unintentional jibe. With a vang properly affixed and set up, the dangers of crew injury or rigging damage are greatly reduced.

THRU-HULL FITTINGS

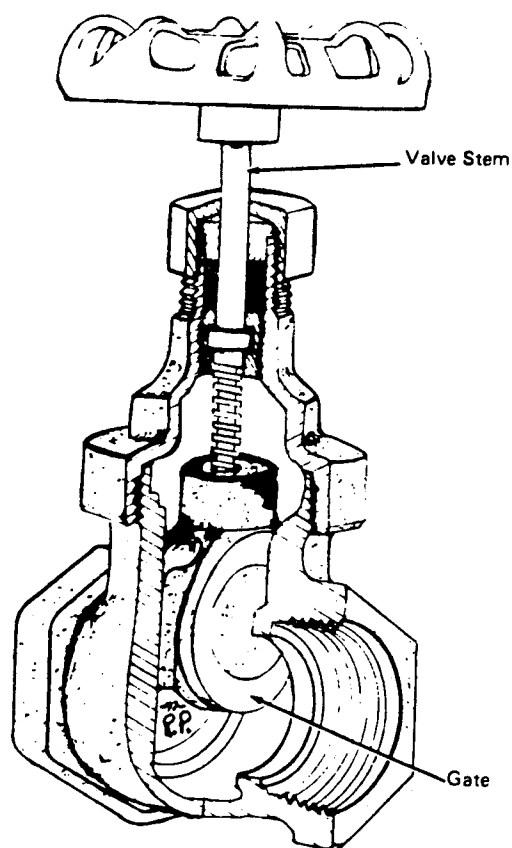
A prudent skipper will regularly inspect *all* below-water hoses and clamps for rusting or cracking and if found, replace the worn item immediately.

It is also a good idea to close all thru-hull fittings, (with the exceptions of cockpit scupper thru hulls) when not in use or when you are not aboard.

When opening the valves, turn counterclockwise to the stop and turn back $\frac{1}{4}$ turn clockwise. In this manner you will help assure that a crewmember will not mistake a fully opened fitting for one which is closed and apply a potentially damaging load on it in an attempt to free it.

It is important to make sure that the valves are either fully open or fully closed, (with the above-mentioned exception) as a gate valve left half open will wear excessively as the water passing around the gate portion of the valve will tend to cause it to "chatter." (See the enclosed cut-away drawing for detail information on thru-hull construction.)

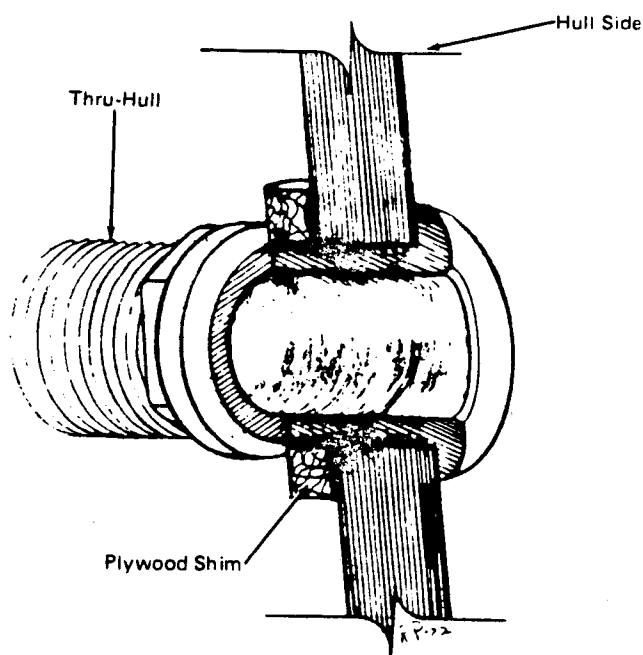
At regular intervals, when hauled out for maintenance or bottom painting, all of the thru-hull fittings should be disassembled, inspected for wear or electrolysis, and packed with a good quality water-proof grease.



Gate Valve

ELECTROLYSIS:

Electrolysis is a potential problem with any metal fittings which are immersed in salt water, but presents no danger in a fresh water environment. In short, the damaging effect of electrolysis occurs when a weak electric current passes between metals immersed in a solution which is a conductor, (in this case salt water). The current flow may be induced owing to a dissimilarity in the activity of metals, (for example zinc is more active than bronze so the current will flow from the zinc to the bronze) or due to a current caused by a loose wire grounding itself to a thru-hull fitting. In any event it is important to keep current from flowing *from* any of your boat's skin fittings. To reduce the possibility of this current flow, your thru-hull fittings are made of the best bronze which is very "noble" or resistant to such electrical activity. To further protect against the damaging effects of electrolysis it may be necessary to install a zinc which will "sacrifice" itself to protect your skin fittings. Ask your dealer about the advisability and location of any zincs. Also routinely check for any loose wires in the area of the thru-hull fittings and secure if found. If, during periodic inspections you detect a "rose" color on the interior parts of the fittings or a pitting on the exterior flange, it is a strong indication of the presence of electrolysis and corrective measures (usually adding zinc) should be taken. Again, regarding the complex problem of electrolysis, it is best to consult your Ericson dealer.



Thru-hull Assembly

OPTIONS

Your new Ericson may be fitted with a wide variety of options, all of which will add to the pleasure of sailing. We have included a general discussion of the options available on your particular model. If you have purchased the option, instructions published by the manufacturer of the equipment are included in the pocket at the back of this manual.

If you have specific questions about the operation or maintenance of any optional item, it is best to first contact the nearest supplier handling the particular item of equipment. He is best equipped and trained to offer timely and knowledgeable service. A list of the original equipment manufacturers who supply the optional equipment is included in this manual. In the event that a dealer or service representative is not available, you should contact your Ericson dealer for information.

DIESEL ENGINE

Since diesel engines do not require an electrical ignition system to produce combustion they are ideal for marine installations. Instead of a coil, distributor, and spark plugs, all of which are subject to problems caused by dampness, the diesel produces its power when fuel oil is precisely injected into the cylinder under high pressure causing combustion. Although diesels are relatively immune to malfunction caused by dampness, they are very prone to stoppages caused by dirty fuel. It is important to install quality fuel filters and regularly change the cartridges in accordance with the manufacturer's recommendations. Air in the fuel lines can stop a diesel just as easily as dirt, so it is important to learn the proper bleeding procedure to remove any air in the system. Closely follow the maintenance schedule found in the service manual covering the particular engine fitted.

COMPASS:

We strongly recommend that a compass be added to the equipment inventory of any boat which will be sailed offshore, as visual landmarks may not always be available to use for dead reckoning. After installation, it is important that the compass be "swung" by a qualified compass adjuster and that the resulting deviation card be kept aboard for reference while navigating. Do not allow ferrous metals (iron-steel) to be placed near the compass as this will induce errors. Always keep the compass covered when not in use to protect it from the damaging effects of sunlight.

WHEEL STEERING:

If wheel steering is selected, it is advisable to regularly check the condition of steering cables, quadrant and rudder head. Some initial stretch will occur in the cables which should be taken up using the threaded eye bolt on the quadrant. The cables should be slightly taut, but not excessively so as

too much tension on the quadrant can cause binding of the rudder head. Access to the quadrant is gained through the inspection plate on the forward side of the cockpit bridge that supports the pedestal and wheel.

In case of a failure of the wheel steering, an emergency tiller can be fitted to the rudder head through the access plate. The boat is then controlled as any tiller-steered sailboat. Nothing needs to be done to the wheel steering when the tiller is affixed. It is advisable to locate the tiller in a readily accessible area and practice fitting it at least once.

REACHING STRUT:

If a spinnaker gear package is selected as an option, it is recommended that the reaching strut assembly also be purchased. When close reaching with the pole well forward, the reaching strut will do much to reduce the strain on the afterguy. The afterguy should not be allowed to contact the upper shrouds nor should the pole be allowed to lay against the headstay as this may cause excessive loading of the shrouds or headstay.

Before each outing, it is important to check the operation and condition of the pole and pole end fittings, mast car and track, spinnaker halyards and foreguy. It is helpful to fit plastic collars on the spinnaker sheets to prevent the snap shackles from jamming the jaws of the pole, preventing tripping of the afterguy snap shackle on takedown.

BATTERY CHARGER:

If a battery charger is fitted, closely follow the manufacturer's recommendations regarding operation and service. Routinely check battery condition and pay close attention to all terminals, wires and connectors.

OPTIONS

110 VOLT SHORE POWER:

A 110 volt shore power system is available on the Ericson to provide electricity for small appliances or a battery charger. The system has a shore power cord rated at 30 amperes, a circuit breaker of 30 amperes, and outlets at convenient locations in the cabin. The following safety precautions should be **STRICTLY** adhered to when using the 110 volt shore power system.

1. Always turn off the boat circuit breaker **BEFORE** connecting or disconnecting the shore power cord.
2. Take special precautions to prevent the "live end" of the shore power cord from contacting crewmembers or the water. To assure this, always *connect* the shore power cord to the boat first, then connect at the dockside outlet. *Disconnect* the shore power cable at the dockside outlet **BEFORE** the boat.
3. Be prudent when using onboard electrical appliances such as toasters which require a great deal of power, as you may cause the dockside circuit breaker to trip. Check with the dockmaster regarding acceptable loads on the dockside electrical system.
4. Always be sure that your shore power cord will mate properly with the dockside outlet. Do not use an adaptor or pigtail until you have consulted the dockmaster.
5. Regularly check the condition of the electrical wiring and insulation, circuit breaker, shore power cord and connectors to assure continuing safe operation. If you have any questions check with your Ericson dealer.
6. If the main circuit breaker trips to the "off" position, it may be because the dock power is improperly wired, causing "reverse polarity." To test for this condition, switch all of the accessory breakers to the off position to assure that a simple overload induced by onboard electrical accessories is not causing the problem. If the main breaker continues to trip, unplug the shore power cord and see the dockmaster as the dockside power sources is improperly wired. This automatic tripping action is a safety feature designed to protect onboard electrical accessories from possible damage due to reverse polarity.
7. It is a good practice to routinely check the areas where electrical wiring passes through bulkheads for wear and tear on the wire insulation due to chafe. Have any chafed wires replaced immediately by a qualified electrician.

FOLDING PROPELLER:

A folding propeller produces much less drag than a conventional solid prop and is a worthwhile purchase, especially if your boat is to be raced. It is important to keep in mind that there may be some delay in backing down (reverse) as the flow of water will have a tendency to fold the blades in a closed position.

A wise skipper will familiarize himself with the handling characteristics of the boat when a folding prop is fitted, in particular the distance required to stop the boat after shifting to reverse.

If any unusual vibration is detected when powering it may be occurring because both blades have not completely unfolded. Continued operation in this situation could cause damage to the strut and drive line. To correct the problem, try rapidly shifting from forward to reverse to free the blade. If this does not work, it will be necessary to free it underwater. When hauled out it is advisable to routinely check the prop for nicks or dents and for proper operation.

PRESSURE WATER:

If the pressure water system is purchased, it is important that the following suggestions be strictly adhered to:

1. If you plan to leave the boat for any length of time, turn off the pressure water switch. If the optional 110 volt water heater is fitted, switch it off also.
2. Be sure that the water tanks are kept topped up, otherwise the hot water tank (if 110 volt hot water is purchased) may run dry. If this occurs, the heating element could overheat, causing damage to the tank and a possible electrical fire.
3. Make sure that the lines are kept free of air as they will cause the water pump to operate continuously, inducing excess wear. Routinely bleed the lines by opening the water taps and allowing water to run until a steady flow with no air bubbles is obtained.
4. Routinely check all hoses and hose clamps for integrity, replacing any which show evidence of cracking or deterioration.
5. If you have any warranty problems with the water pump, contact the manufacturer as shown in the original equipment manufacturer's list in the back of this manual.

OPTIONS

LARGER HEADSAILS:

Most owners of Ericson Yachts will eventually want to purchase a larger headsail for light air conditions or to provide additional power for racing or cruising. Usually any headsail which overlaps the mast is considered a genoa and is identified by the amount of this overlap. Accordingly, if the distance from the forward edge of the mast to the point where the headstay joins the bow is 10'/3.05 m, (J on the sail plan), any headsail with distance of 15'/4.58 m from its clew to the luff on a line perpendicular to the luff would be termed a 150% genoa. If the luff perpendicular line or LP was 18'/5.49 m, then the sail would be considered a 180% genoa. It is generally accepted theory that larger headsails combined with a smaller mainsail provides the greatest power per square foot of total sail area, so any owner wishing to gain the best efficiency from his boat will usually add to his inventory of headsails. It is wise to always keep in mind that larger headsails generate much greater loads, so that appropriate cars, blocks and track should be selected to fit particular needs. Refer to the safe working loads of any hardware item you plan to purchase or consult your Ericson dealer.

STOVES

ALCOHOL:

Please refer to manufacturer's literature before operating. To fill the tank with the required amount of alcohol that the stove tank will hold, unscrew the cap, turning to the left, use a funnel to pour in the alcohol, being careful not to spill any on the stove or parts of the galley assembly. (If you do spill—wipe up with lots of water and be absolutely certain no alcohol has run down the sides of the assembly, under the bunk cushions, etc.)

Pressurize the tank with the hand pump and turn on the burner (to the left), and let a little alcohol flow into the priming pan. Light the fuel with a match after you have turned off the alcohol supply. When the fuel has burned down to a low flame in the priming pan, turn the burner on for fuel supply and light with a match. **IF YOU HAVE A FLAREUP UPON LIGHTING**—Turn off the fuel supply completely. If flame does not go out and seems out of control, douse it by pouring water over flame and stove. Note: You may relight the stove after drying up all the water (the water will not hurt the stove). If the fire gets out of hand, use an extinguisher. We suggest when the stove is not in use, that you release the pressure in the tank by unscrewing the fill cap on the top in a counterclockwise direction. This will extend the useful life of the burner tips.

PROPANE:

If a propane stove is fitted it is important that **EXTREME CAUTION** be used during operation as propane is a **highly explosive gas** if it accumulates in a closed area such as the bilge. Since propane is heavier than air it will sink to the lowest point in the bilge where it is very difficult to detect. The following suggestions will help reduce the risks involved when using propane stoves.

1. Always locate propane tanks in an air tight box which is vented at its lowest point to a tube which leads overboard. Regularly check the vent to assure that it is intact and not blocked in any way.
2. Install a shutoff valve outside near the propane tank and always turn off the system when not in use to prevent a possible leak into the galley in the event that a stove burner or line is faulty.
3. Always sniff test the area around the stove and in the lowest point of the bilge, checking for a propane smell **before** operating the stove, engine or electrical appliances.
4. Regularly check the entire system for leaks as follows: Pressurize the system by turning the burners off with the tank valve on. Brush a solution of soapy water on all lines and fittings, checking for bubbles which would indicate a leak. If detected, either tighten the fitting or replace the line as necessary and recheck using the soapy solution.
5. Regularly check the tank(s) for dents, rust or corrosion.

CNG:

Compressed natural gas has all of the benefits of propane, being clean burning and easy to use, without the drawback of being heavier than air—reducing the risk of explosion from an accumulation of gas in the bilge. Unfortunately CNG is not available in many parts of the country.

KEROSINE:

Kerosine is one of the safest stove fuels but has the drawback of burning with a sooty yellow flame if improperly primed, or if the burner tips are clogged or the fuel is dirty. With proper maintenance a kerosene stove will provide a clean source of cooking heat. In case of fire it is advisable to attempt to smother the flame using a pan lid or use a fire extinguisher approved for such use by the Coast Guard. If a fire extinguisher is used, aim at the base of the flame. Under no circumstances attempt to use water to put out a kerosine fire as it will only serve to spread the flame.

ATOMIC FOUR ENGINE:

An Atomic-4 engine is standard on the Ericson 29. It is imperative that special precautions be taken to assure that fuel or exhaust leaks do not develop. Regularly check every fitting, line and filter on the fuel system to be sure that they are secure. While the engine is running, make a thorough inspection of the exhaust system for leaks. Check the cooling water outlet for normal flow and routinely check the packing gland for proper tightness. It should be only tight enough to stop the water flow before tightening the locknut against it. If the packing nut is over-tight it will cause excess heating and possible damage to the packing. After a period of time, all of the take-up on the packing nut will be used up. At that point it is time to re-pack the gland using flax packing which can be obtained at most marine hardware stores.

Check shaft alignment after the boat has been in the water for a few weeks and routinely check engine bed bolts for tightness. Carefully follow the suggested service recommendations found in the enclosed engine manufacturer's manual.

GALLEY:

The galley consists of a deep stainless steel sink with a foot-operated pump and a 16.7 gallon/ 63.3 L fresh water tank located under the starboard quarterberth, a well-insulated self-draining ice-box, space for an optional two burner counter top or three burner stove with oven and ample food, condiment and dish storage. It is advisable to routinely flush the water tank, particularly on a new boat to assure a fresh tasting supply of water.

HEAD:

See the head manufacturer's instructions for proper use and maintenance of your marine head.

A marine head will give trouble-free service and operation if not missused. Make sure the operational instruction plate is mounted in a place where it can be seen. Emphasize to guests that cigarettes, paper towels, cloth, etc. should not be disposed of in the head. The major cause of faulty operation is usually traceable to this practice. All requests for parts and routine service should be directed to the manufacturer of the head.

For more information on Federal marine head requirements refer to CG-485 "Federal Marine Sanitation Device Regulations."

OPTIONS

BILGE PUMP:

Both a manual and an electric bilge pump are available as an option. If either model is fitted it is important to routinely check the operation of the pump, and also be sure that all clamps and hoses are secure and that the inlet screen is kept free of debris.

REEFING GEAR:

It is sometimes important to be able to reduce the size of the mainsail when the wind velocity warrants a reduction in sail area. A properly reefed main will greatly ease the motion of your boat in heavy weather and reduce the strain on the hull and rigging. Jiffy reefing is recommended for reefing the main. Consult your dealer about its proper operation.

SAFETY

SOME THOUGHTS ON SAFETY:

The safe operation of your new Ericson is the responsibility of *YOU*, the skipper. Your boat can provide countless hours of pleasurable sailing and many memories of enjoyable cruises. To do so, you must be well equipped to handle any possible situation which may arise. Having a good working knowledge of your boat's handling qualities and safety gear is a good start and in this capacity your Ericson dealer can provide invaluable information. Secondly, you have a responsibility to yourself and your crew to learn as much as possible about the basic skills necessary to make safe passages.

Both the U.S. Coast Guard Auxiliary and the U.S. Power Squadron offer excellent courses covering a wide variety of subjects ranging from basic sailing to celestial navigation. For more information contact your local chapter or write either the Chief, Auxiliary Affairs Division, Office of Boating Safety, U.S. Coast Guard, G-BAE, Washington, D.C. 20559 OR United States Power Squadron, P.O. Box 30423, Raleigh, N.C. 30423.

Third and lastly, is the need to practice the things which you have learned. It is one thing to know about the requirements for personal flotation devices and quite another to practice fitting and wearing them. A prudent skipper will read the enclosed Coast Guard publication titled "Federal Requirements for Recreational Boats." For the equipment and safety requirements currently in force.

SPARES:

It is wise to carry on board a set of basic tools, spare parts (cotter pins, winch pawl springs, etc.) a medical kit compiled following the advice of your doctor, flares, flashlights, manoverboard gear, etc.

PFD:

A Coast Guard approved personal flotation device (PFD) of appropriate size should be carried aboard for each crewmember, (see CG-290 for details). It is important to routinely check all PFD's for condition, replacing any which show signs of ageing or wear. An occasional hosing with fresh water and a thorough drying in the sun will assure that salt water or mildew does not accumulate.

ANCHORS:

It is a good idea to have an anchor ready in a convenient accessible area cleared to drop and with enough rode for your local sailing conditions, whenever you leave your slip or mooring. The vagaries of wind and tide plus the possibility of an engine stoppage make a ready anchor your "Best Insurance."

FIRE EXTINGUISHERS:

The threat of fire aboard a boat is always present, and the possible consequences are extremely serious. Fire extinguishers of the size and type recommended by the U.S. Coast Guard should be installed immediately by the owner. (See CG-290).

As important as the number of extinguishers, is their location which should be near places where fire is most likely to occur, such as the galley or engine area. The extinguishers should be readily accessible in an emergency and not cut off by the fire itself. Following the recommended servicing schedule will help assure that when the extinguisher is needed it will be operable.

INBOARD FUELING SAFETY

****CAUTION: Gasoline vapors are heavier than air and will settle in the lowest point in the bilge where they are HIGHLY EXPLOSIVE.**

Each time fuel is added to your engine these steps should be followed.

1. Estimate the amount of fuel required based on knowledge of tank capacity and current fuel gauge readings before reaching the fuel dock and order approximately that amount. Tanks should be filled to about 95% of total tank volume to allow for heat expansion without causing an overflow at the tank vent.
2. Shut off engine and switch off main electrical breaker.
3. Have a ready fire extinguisher on hand any time fuel is taken aboard.
4. Extinguish all stoves, lamps or cigarettes below-decks and avoid any possible exposure to flame or sparks during the fueling process.
5. Carefully oversee the fueling and when the proper amount of fuel is aboard, secure the cap, wash down any spills and check for overflow at the tank vent.
6. Open all hatches, doors, windows and ports.
7. Let your nose be your guide—thoroughly sniff the lowest point in the bilge and the area around the engine and fuel tank(s). If a raw fuel smell is detected—**STOP**. Do not do anything else until you are able to trace its source, correct it and clean up the spilled fuel with a sponge and bucket.
8. If a bilge blower is fitted, operate it at least five minutes after giving the bilge a sniff test.
9. Switch on main electrical breaker and start engine.

Safe fueling cannot be emphasized strongly enough. Accidents caused by unsafe fueling practices constitute a major cause of injury and property loss in pleasure boats.

SAFETY

BATTERY:

At the heart of the DC electrical system is a 12 volt marine battery. If your Ericson was built after October 1st, 1977, it is equipped with a Sears Di-Hard battery which never requires the addition of water. On boats built prior to this date it is necessary to regularly check battery fluid level, adding distilled or chemically pure water as needed. Check the battery maker's warranty in the back of this manual for warranty details and dealer address if you have purchased this option. Warranty service for the Di-Hard batteries may be obtained at any Sears store.

******CAUTION** — Battery water is diluted sulphuric acid and therefore highly dangerous. It can cause severe burns or damage to fabric if allowed to contact skin or clothing. In the event of spillage, immediately flood the affected area with copious amounts of water and if possible apply a solution of baking soda and water which will neutralize the acid.

When the battery is being charged, it gives off free hydrogen and is therefore highly explosive. Avoid striking sparks near a battery being charged. Also never use matches or open flame near a battery which is still warm after use or charging. Do not short across cells or remove or attach cables to a battery carrying a load. Always be sure that battery terminals and cables are clean and free of corrosion. A light coating of grease applied to the terminals and cable ends will reduce the formation of corrosion. Keep the battery cover in place with the straps secured to prevent accidental shorting.

In the event that the battery is not being used for a long period of time store it in a cool dry place off the floor and charge it periodically as a stored battery may lose its charge.

SUGGESTED READING LIST

Basic Sailing

Piloting, Seamanship and Small Boat Handling
Chapman
Basic Sailing — George
Basic Windcraft — Watts
Colgate's Basic Sailing — Colgate
Hand, Reef and Steer — Henderson
Royce's Sailing Illustrated — Royce
Seamanship — Time-Life
Boat Handling — Time-Life

Navigation

Piloting, Seamanship and Small Boat Handling
Chapman
Dutton's Navigation and Piloting — Dunlop
Primer of Navigation — Mixer
Almanac and Weather Forecaster — Sloane
American Practical Navigator — Bowditch
Instant Weather Forecasting — Watts
Kindergarten of Celestial — Seller
Oceanography and Seamanship — Van Dorn
Government Publications:
Lights Lists
Radio Navigation Aids
Sailing Directions
Tide Tables
Sight Reduction Tables

Safety

Piloting, Seamanship and Small Boat Handling
Chapman
Advanced First Aid Afloat — Eastman
Dangerous Marine Animals — Hasteed
Until the Doctor Comes — Merker
Physician's Desk Reference
Sea Survival — Robertson
Federal Requirements for Recreational Boats — CG-290

Shipshape and Bristol Fashion

Sails — Williams
Art of Rigging — Biddlecome
Arts of the Sailor — Smith
Ashley Book of Knots — Ashley
Boat Owners Maintenance Manual — Toghill
Care and Repair of Sails — Howard-Williams
Fiberglass Repairs — Petrick
Glass Fibre Repair — Jones
Maintenance — Time-Life

Racing

Elvstrom Speaks Out on Yacht Racing — Elvstrom
Fundamentals of Sailboat Racing — Falk
Invitation to Sailboat Racing — Brown
Yacht Racing Rules, 1977-1980 — Bavier
Elvstrom Explains Yacht Racing Rules — Elvstrom
Racing Tactics — Curry
Racing — Time-Life

Cruising

Sailing Alone Around The World — Slocum
Cruising Under Sail — Hiscock
Sea Was Our Village — Smeeton
After 50,000 Miles — Roth
Around the World in Wanderer III — Hiscock
Deep Sea Sailing — Bruce
Heavy Weather Sailing — Coles
Ocean Sailing Yacht — Street
Self Steering For Sailing Craft — Letcher
Voyaging Under Sail — Hiscock
Crew List For Spanish Speaking Countries — Baldwin
Cruising — Time-Life
Sail Power — Ross
Complete Cruiser — Herreshoff
Cruiser's Compendium — Henderson
Sea Quest — Borden
Long Way — Moitessier

Galley

Blue Water Cookbook — Brown
Bottems Up Cookery — Leamer
Edible Sea Creatures — Hill
Gourmet in the Galley — Robinson
Happy Ship Cookbook — Berick
New Cruising Cookbook — Jones and Norton
Complete Fish Cookbook — Morris

ORIGINAL EQUIPMENT MANUFACTURERS

For parts or warranty service on any of the items listed below contact the original equipment manufacturer or dealer handling the part. The OEM suppliers are best trained and equipped to offer service and often their individual warranties will be voided if Ericson Yachts or an Ericson dealer provides service.

When replacing standard items such as screws, blocks or turnbuckles, it is wise to purchase them through your local marine hardware store or yacht equipment catalog instead of ordering them from Ericson Yachts.

This has a dual benefit in that the parts are often less expensive when purchased locally, and our stockroom is less burdened supplying standard items and is thus better able to respond to your needs for specialty equipment available only from the Ericson factory.

Anodizing

Anadite
10647 S. Garfield
South Gate, CA 90280
213/773-4210

Batteries

(Boats built prior to 1 Oct. 1977)

Polaris Battery
13752 Harbor Blvd.
Garden Grove, CA 92640
714/839-6400

(Boats built after 1 Oct. 1977)

Any Sears Store

Bilge Blower Motor

Atwood Corporation
Box A
Lowell, MI 49331
616/897-9241

Bow & Stern Pulpit & Stanchions

Railmakers
849 B West 18th Street
Costa Mesa CA 92627

Compasses

Danforth Compass
Portland, Maine 04103
207/797-2791

Cowl Vents

Nicro-Fico
2065 W. 140th St.
San Leandro, CA 94577
415/357-8332

Cushions, Carpets, Fabrics

Johansen & Christensen
16691 Milliken Ave.
Irvine, CA 92664
714/556-1063

Dockside Cords

Marineco
450 E. Strawberry Drive
Mill Valley, CA
415/383-5338

Gauges

Marcra Manufacturing
3303 Harbor Blvd., Suite C-4
Costa Mesa, CA 92626
714/556-0250

Engines - Outboard

Check Yellow Pages for the
dealer nearest you.

Engines - Inboard

Atomic-4
Medalist Universal Motor
1552 Harrison St.
Oshkosh, Wisc. 54901
414/231-4100
Volvo
Western Engine
17831 Sky Park Circle, Suite J
Irvine, CA 92707
714/556-8620

Perkins
Charles M. Smith Co.
505 31st St.
Newport Beach, CA 92663
714/673-4780

Yanmar
Miller Marine Sales
1591 Monrovia St.
Newport Beach, CA 90660
714/646-4351

Westerbeke
Westerbeke Engine
Avon Industrial Park
Avon, Mass. 02322
617/588-7700

Halyards - Rope/Wire

Justice Co.
1401 E. Edinger
Santa Ana, CA
714/835-5585

Heads & Hot Water Heaters

Raritan Engineering
1025 N. High St.
Mellville, N.J. 08332
609/825-4900

Folding Propeller

Martec Engineering
2257 Gaylord St.
Long Beach, CA 90813
213/435-4494

Mast & Boom (23, 25, 27 only)

Sparcraft
Box 925
Costa Mesa, CA 92627
714/645-7177

Panel & Interior Lamps

Jensen-Wemac (cabin lamps)
3343 N. Harvard
Santa Ana, CA 92704
714/754-1711
Seatec (main panel)
1534 E. Edinger, Suite 8
Santa Ana, CA 92705
714/558-1483

Pedestal Steering

Teleflex Yacht Specialties
1555 East St. Gertrude Pl.
Santa Ana, CA 92705
714/546-1707

Galley Pump

VSI-Small Lot Stamping
1410 E. Walnut Ave.
Fullerton, CA 92631
714/870-9600

Pressure Water Pump

Shurflo
1400 Cerritos Ave., Suite E
Anaheim, CA 92805
714/533-7700

Electric Bilge Pump

ITT-Jabsco
1485 Dale Way
Costa Mesa, CA 92626
714/545-8251

Manual Bilge Pump

Seagull Marine
1951 McGaw
Irvine, CA 92705
714/979-6161

Props & Prop Shafts

Marine Propeller Service
415 30th St.
Newport Beach CA 92660
714/557-4073

Refrigeration

Magna-Kold
1760 Monrovia St.
Costa Mesa, CA 92626
714/631-2555

Sink & Shower Fixtures

Famillain Sierra Craft
17711 E. Railroad St.
City of Industry, CA 91748
714/990-1243

Stoves

Galley Maid
Box 10417
Riviera Beach, Fla. 33404
303/848-8696

Homestrand Stove
c/o Kenyon Marine
2730 B.S. Main St.
Santa Ana, CA 92707
714/546-1101

or —

Homestrand Stove
c/o Kenyon Marine
New Whitfield Rd.
Guilford, Conn. 06437
203/453-4374

Princess
Optimus/Princess
12423 E. Florence Ave.
Santa Fe Springs, CA 90670
213/944-9841

CNG Gas Systems
6400 Marina Drive
Long Beach, CA 90803
213/598-9481

Switches

Main Breaker
Industrial Liaison
3190 Airport Loop Drive, Suite B
Costa Mesa, CA 92626
714/556-8871

Blower

Sudbury Laboratory
Sudbury, Mass 01776
617/443-8844

Tanks

Aluminum & Stainless
Vic Berry
760 Newton Way
Costa Mesa, CA 92627
714/646-9703

Plastic
Ronco Products
15031 Parkway Loop
Tustin, CA 92680
714/731-1385

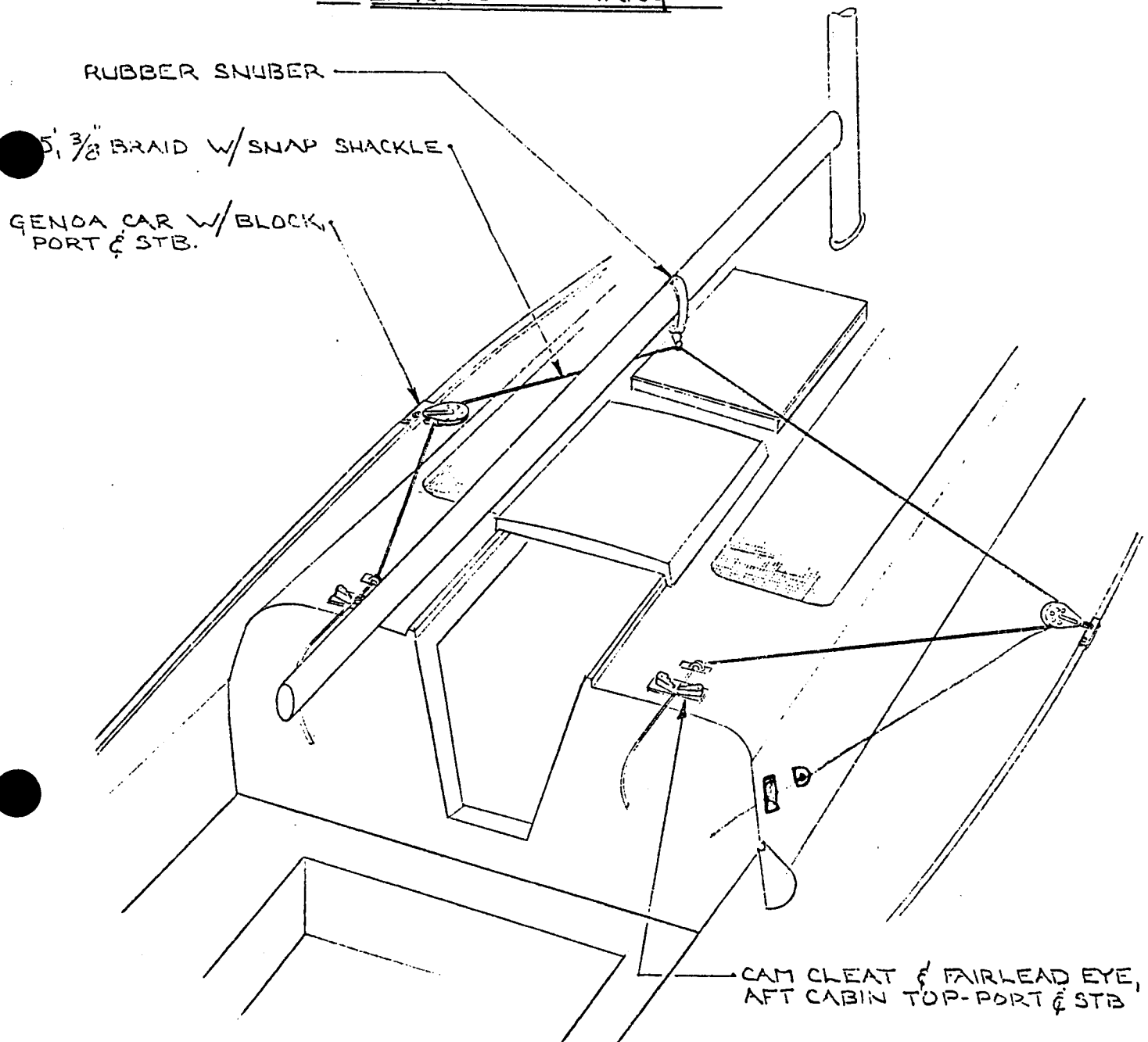
Trailers

Trailrite
3100 West Central
Santa Ana, CA 92704
714/556-4540
E-Z Loader
1723 S. Ritchey Ave.
Santa Ana, CA 92705
714/547-6418

Winches

Barlow
Alexander Roberts Co.
1851 Langley Ave.
Irvine, CA 92705
714/540-2141
Bariant Company
936 Bransten Road
San Carlos, CA 94070
714/540-2141
Lewmar
James K. Dugan
892 West 18th Street
Costa Mesa, CA 92627
714/642-2655

E-29 BOOM VANG

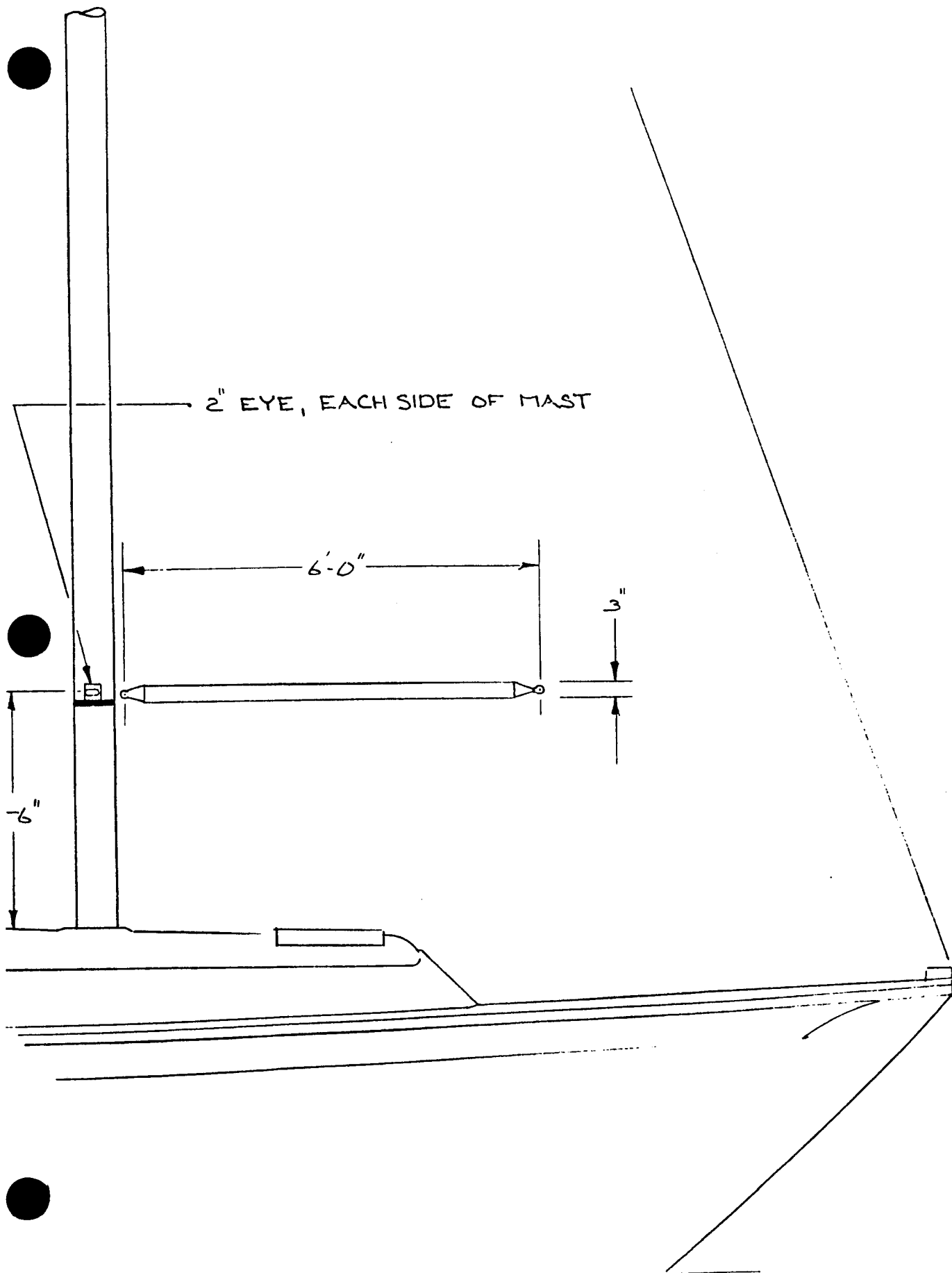


NOTES:

BOOM VANG AS PICTURED ABOVE IS STOCK WITH THE EXCEPTION OF THE CAM CLEATS & FAIRLEAD EYES ON THE CABIN TOP.

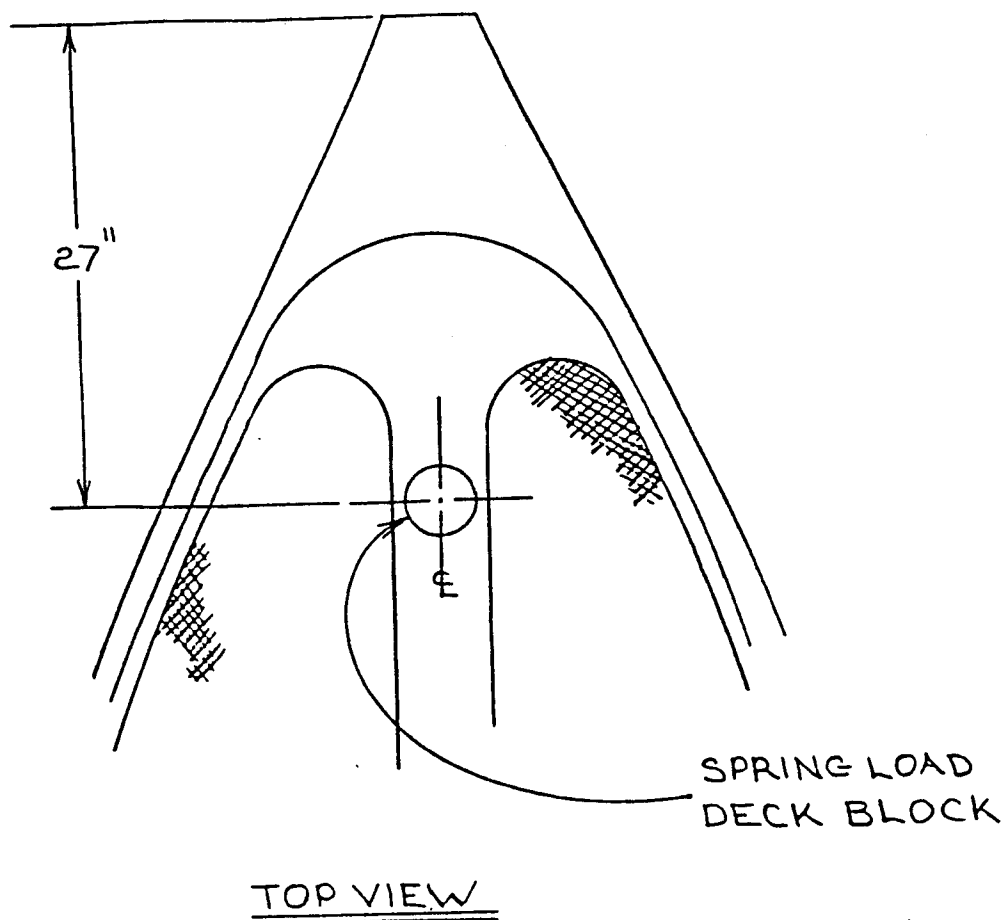
-12/11/74-

E- 29 REACHING STRUT ASSY.



9/6/74

E-29 / E-27 SPINNAKER GEAR

MATERIAL

1- SPRING LOADED DECK BLOCK.
 4- *10X2" R.H.B
 4- *10 FLAT WASHERS
 4- *10 STANDARD NUTS
 DOLPHINITE

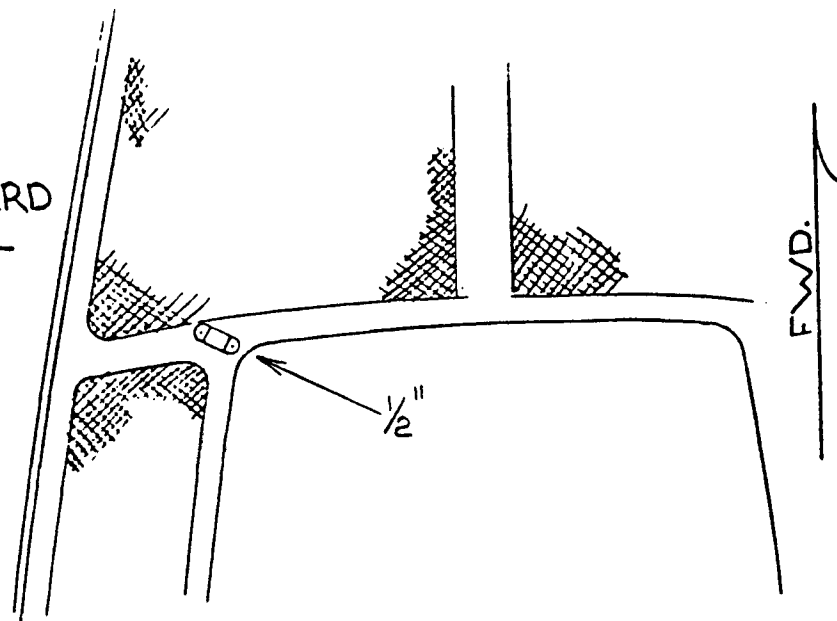
TOOLS

AIRDRILL
 9/64 BIT
 SCREWDRIVER
 3/8 WRENCH.

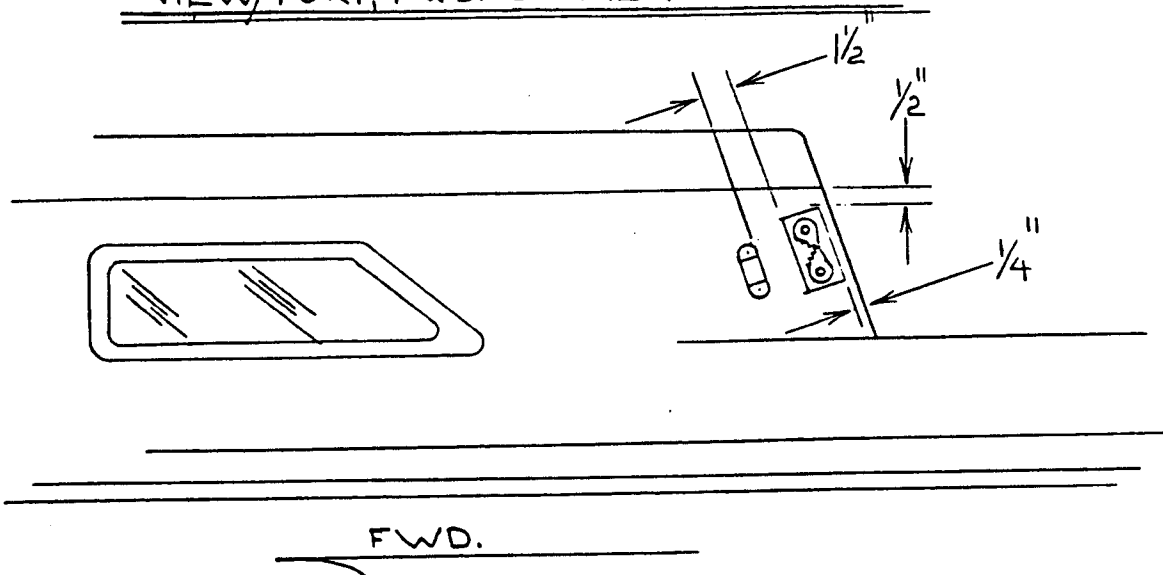
7/27/73

NOTE:

FAIRLEAD EYE
WILL AIM TOWARD
BLOCK ON FORE-
DECK.



VIEW/ PORT, FWD. CORNER OF CABIN



VIEW/ PORT, AFT. END OF CABIN

MATERIAL

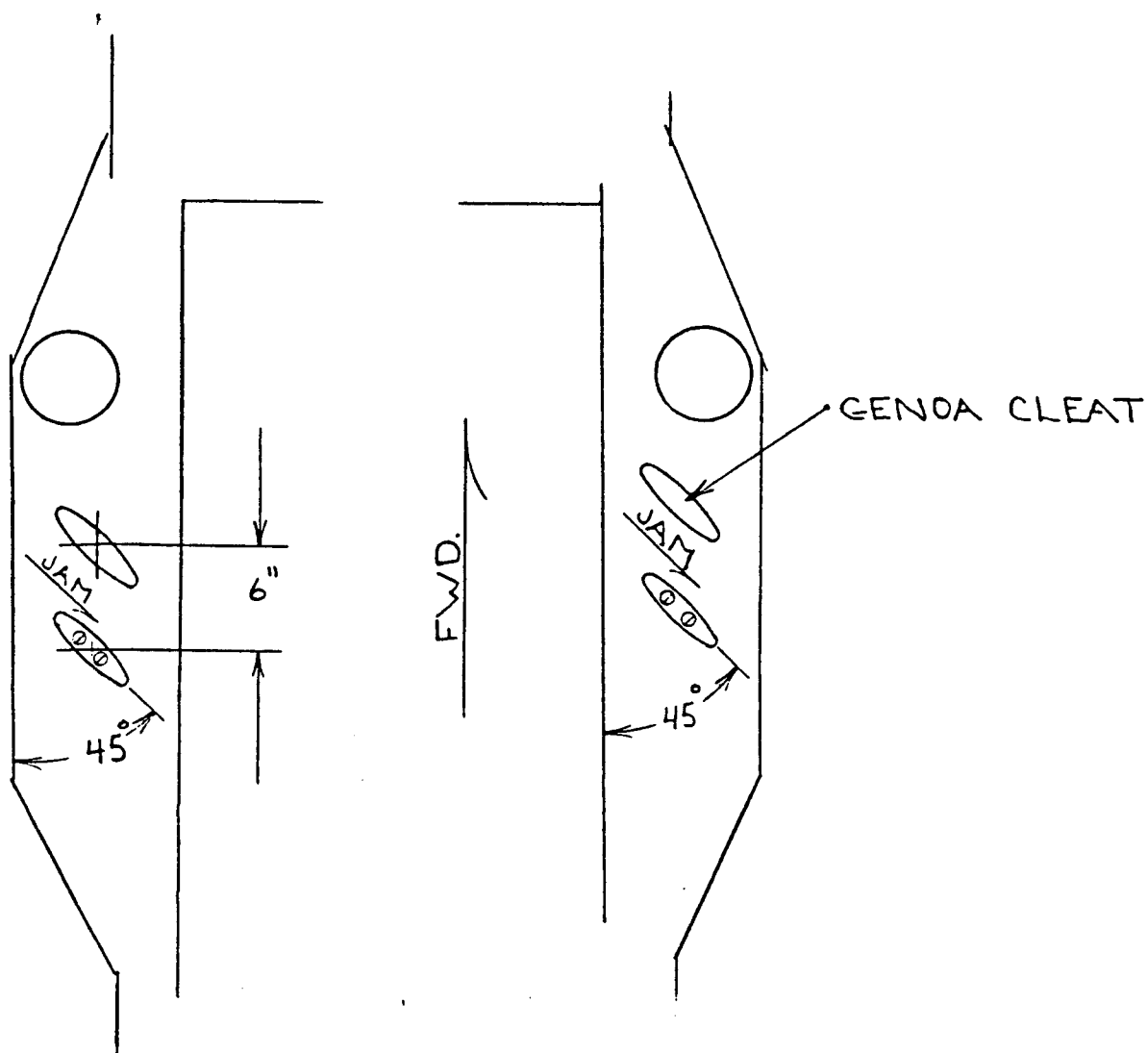
2- FAIRLEAD EYES W/SCREWS.
1- CAM CLEAT W/HARDWARE.
DOLPHINITE

TOOLS

AIR DRILL
1/8" BIT
9/64" BIT
SCREWDRIVER
3/8" WRENCH

7/27/73

E-29 / E-27 SPINNAKER GEAR

MATERIAL

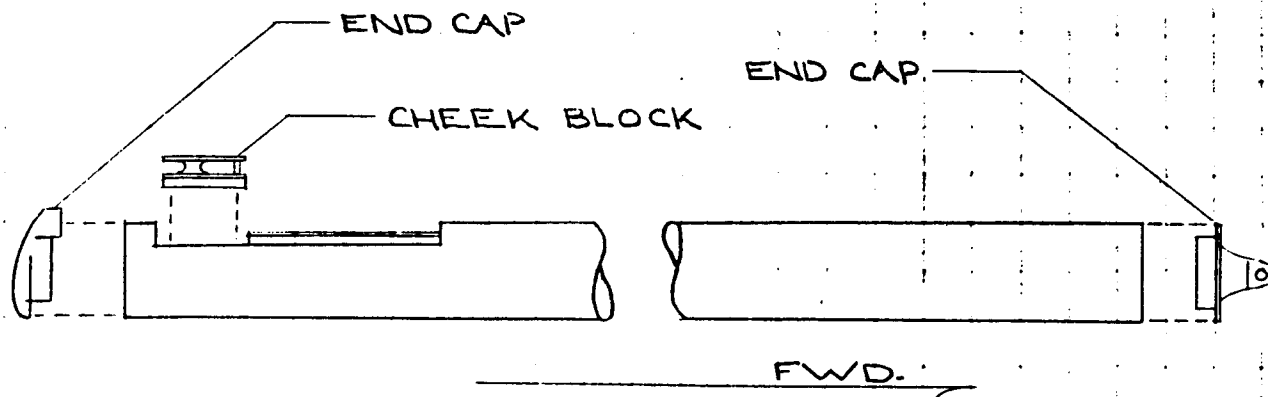
2- 6" CLEATS
 4- $\frac{1}{4}$ / 20 X 3" F.H.B.
 4- $\frac{1}{4}$ " FLAT WASHERS
 4- $\frac{1}{4}$ " LOCK WASHERS

TOOLS

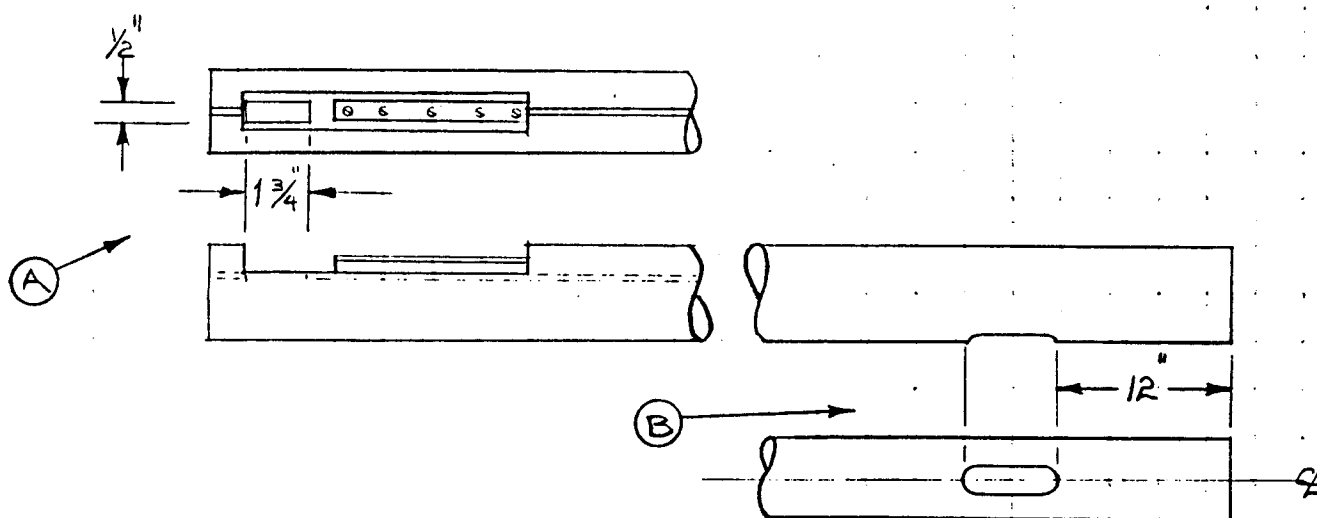
AIR DRILL
 $\frac{1}{4}$ " BIT
 SCREWDRIVER
 $\frac{7}{16}$ WRENCH

7/31/73

TO REMOVE CLEW OUTHAUL UNIT.



FIRST REMOVE "BOOM ENDCAPS" AND
CHEEK BLOCK AS SHOWN ABOVE.



AFTER END CAPS AND CHEEK BLOCK HAVE BEEN
REMOVED, MAKE CUT-OUT FOR BLOCK AFT OF
OUTHAIL TRACK (A), (BLOCK IS 444 RONSTAN).

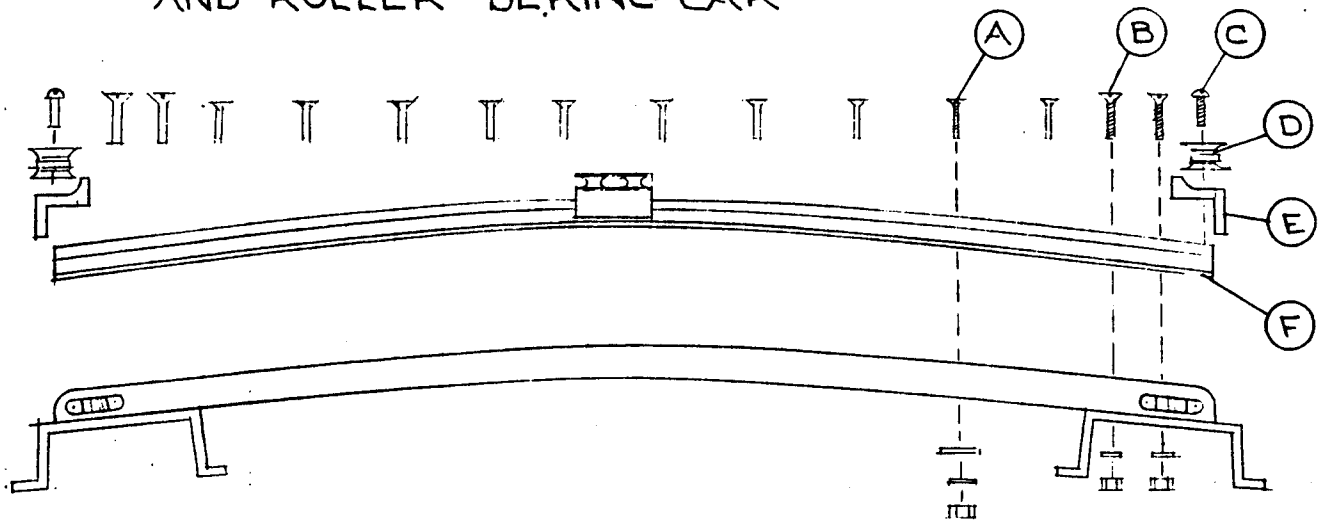
MAKE CUT-OUT FOR REMOTE UNIT. 12" AFT OF FWD.
END OF BOOM AS PER INSTRUCTIONS THAT ARE
PROVIDED WITH UNIT. (B)

NOTE:

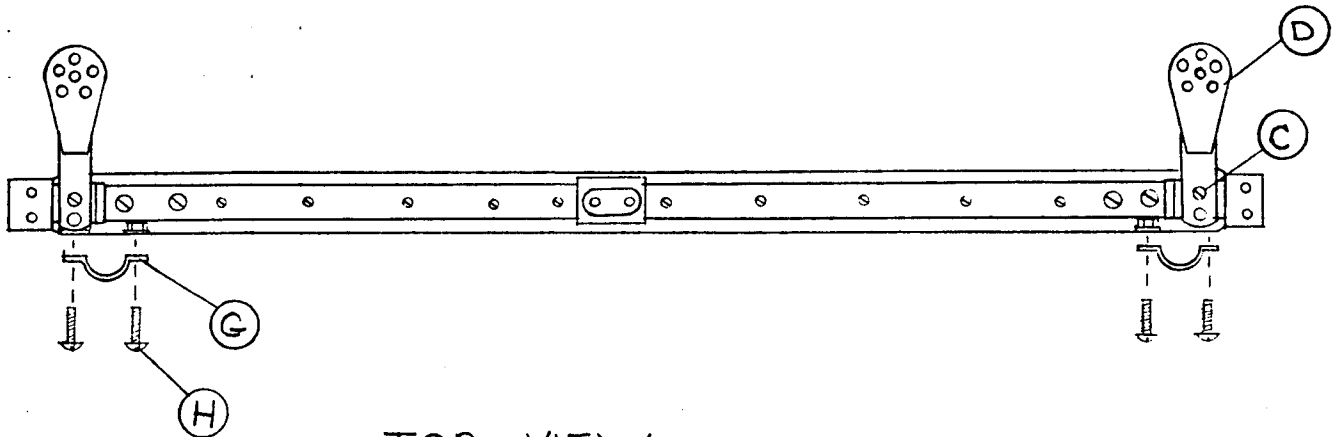
BECAUSE OF THE TIGHT FIT OF THE
REMOTE UNIT IN THE BOOM SECTION
CUT-OUT "B" MUST BE CAREFULLY
CENTERED.

5/13/74

E-29 BOOM TRAVLER W/SEA BOARD TRACK AND ROLLER BEARING CAR



SIDE VIEW



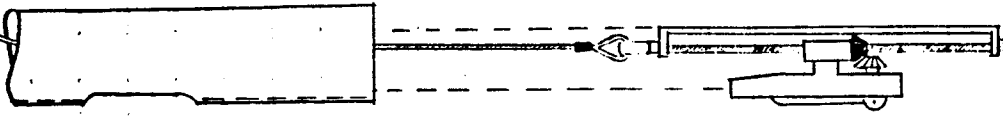
TOP VIEW

NOTE: $\frac{3}{8}$ " MUST BE CUT OFF
OF EACH END OF THE
SEA BOARD TRACK.

- (A) *10-24 X 2" W/ $\frac{1}{4}$ " FLAT WASHER, #10 FLAT WASHER STD. NUT
- (B) $\frac{1}{4}$ - 20 X 2" W/ $\frac{1}{4}$ " FLAT WASHER, STD. NUT
- (C) *10-32 X $\frac{1}{2}$ ", TAP INTO TRACK
- (D) TRAVLER BLOCK
- (E) ALUM. STOP BLOCK
- (F) SEA BOARD TRACK & CAR
- (G) PAD EYE
- (H) #10-32 X $\frac{1}{2}$ ", #10 FLAT WASHER & STD. NUT

BREAK BOLTS OFF FLUSH W/ NUTS

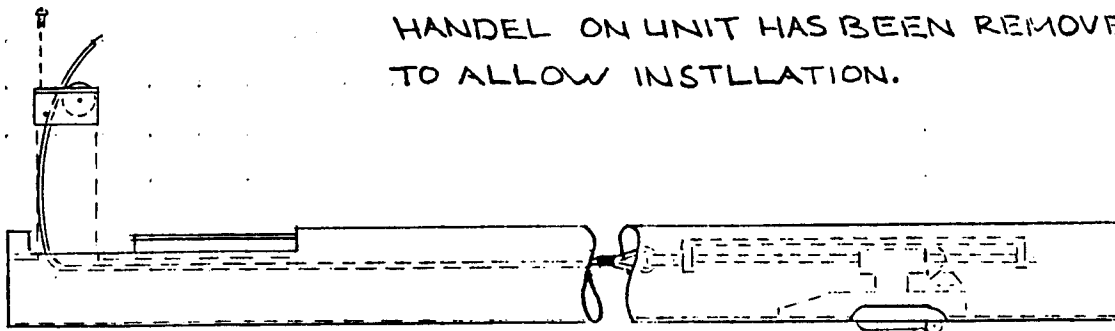
7/10/73



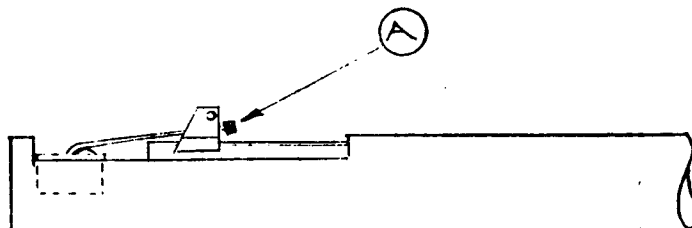
AFTER CUT-OUTS ARE COMPLETE, FEED CABLE THRU BOOM TO AFT END AND SLIDE UNIT INTO POSITION. SECURE UNIT AS PER INSTRUCTIONS.

NOTE:

HANDEL ON UNIT HAS BEEN REMOVED TO ALLOW INSTLLATION.

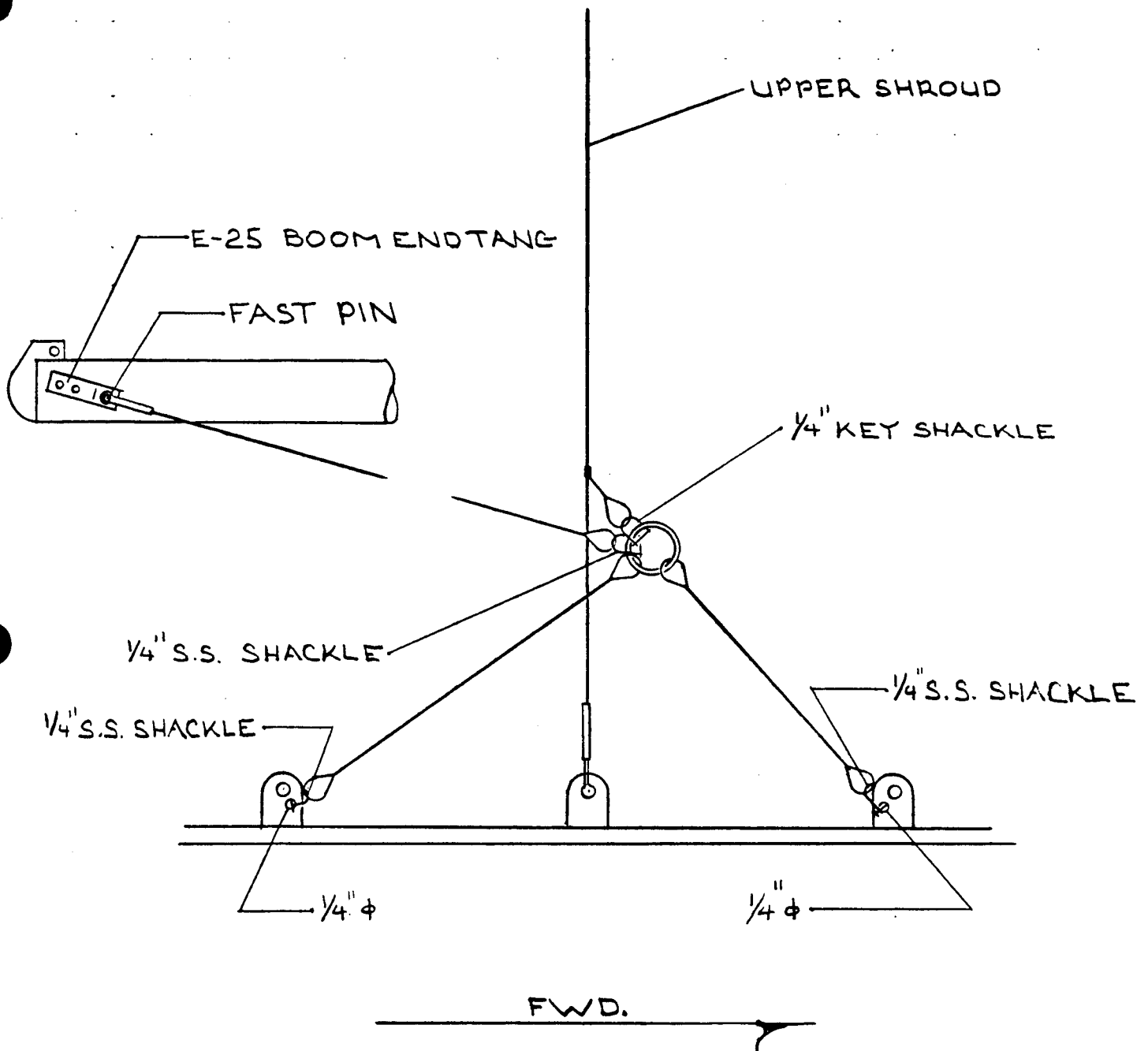


PASS CABLE UP THRU SLOT CUT IN BOOM AND THRU BLOCK, NOW SECURE BLOCK TO BOOM WITH SIX (6) * 10/24 ROUND HD. BOLTS. TAP INTO BOOM.



AFTER BLOCK HAS BEEN INSTALLED, PASS END OF CABLE THRU SLOT IN OUT-HAUL CAR AND NICO-PRESS IN PLACE, (A).
REPLACE END CAPS, INSTLLATION COMPLETE.

5/13/74



1. Disconnect fore & aft Lowers
2. Install Bridle
3. Make sure Boom Topping Lift is Connected
4. Make sure main sheet is secure
5. Disconnect backstay and lower mast slowly using main sheet.
6. DO NOT LET GO OF LINE.

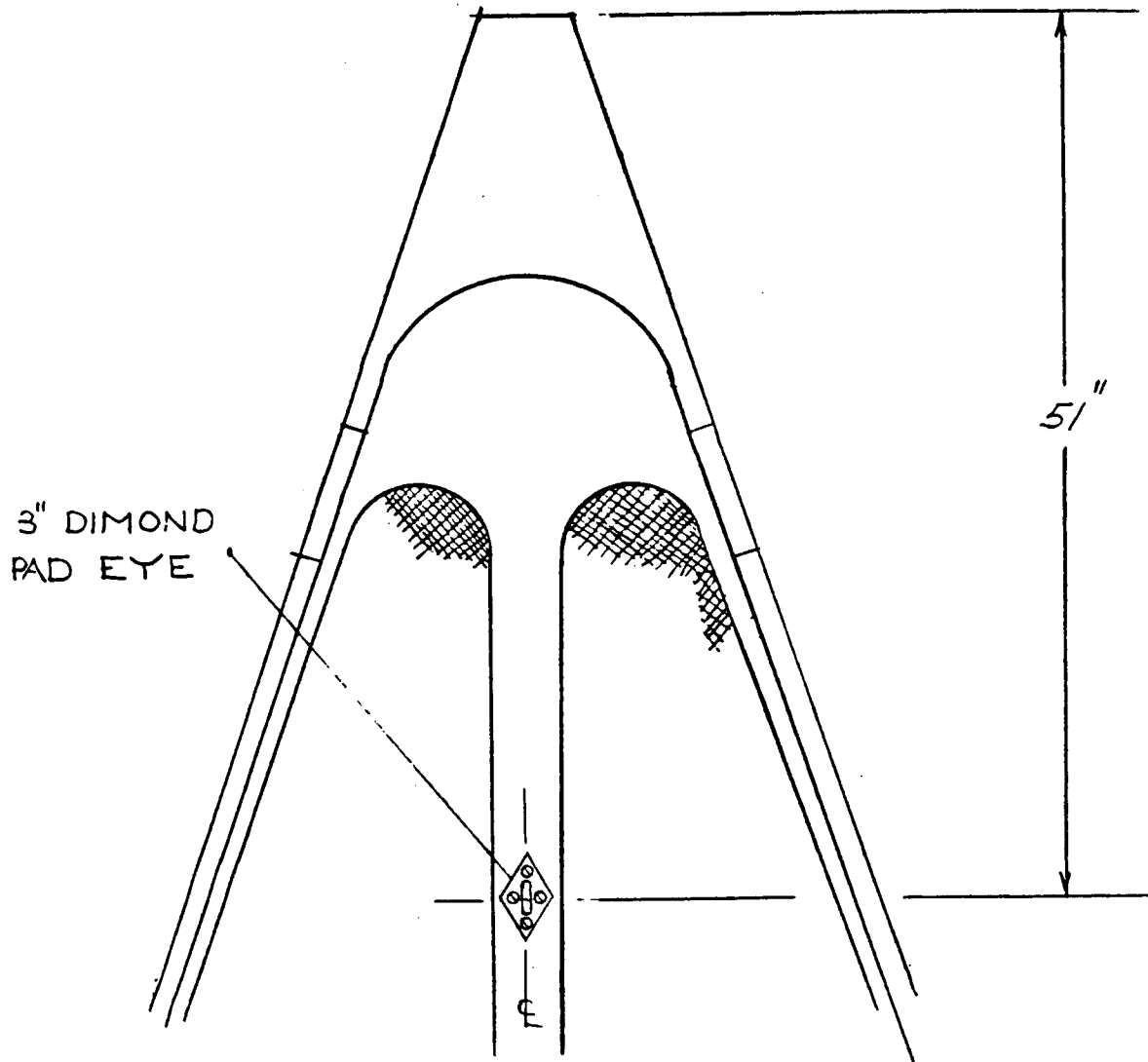
9/11/73

-
- Technical drawing showing two views of a rectangular structure, likely a ship's deck plan, with various components and dimensions.
- Left View (Side Elevation):**
- Overall width: 8"
 - Overall height: 26"
 - Internal width: 7 1/2"
 - Internal height: 12 1/2"
 - Bottom width: 4"
 - Bottom height: 9"
 - Overall bottom width: 13"
 - Components include: a vertical rod on the left, a circular component with a crosshair, a rectangular component with a crosshair, a circular component with a crosshair, and a vertical rod on the right.
- Right View (Front Elevation):**
- Overall width: 9 3/4"
 - Overall height: 3"
 - Internal width: 4 1/2"
 - Internal height: 12 1/2"
 - Bottom width: 4"
 - Bottom height: 9"
 - Overall bottom width: 13"
 - Components include: a vertical rod on the left, a circular component with a crosshair, a rectangular component with a crosshair, a circular component with a crosshair, and a vertical rod on the right.
 - Labels A, B, C, D, E are placed along the left side of the structure.
 - A 45° angle is indicated on the right side.
- Notes:**
- FWD.

FAIRLEAD EYE
W/SCREWS



8/8/73



TOP VIEW OF FORE DECK

MATERIAL

1- 3" DIMOND PAD EYE
 4- $\frac{1}{4}$ "/20 X 2" F.H.B.
 4- $\frac{1}{4}$ " FLAT WASHERS
 4- $\frac{1}{4}$ " LOCK WASHERS
 4- $\frac{1}{4}$ " CAP NUTS
 DOLPHINITE

TOOLS

AIR DRILL
 $\frac{1}{4}$ " BIT
 SCREWDRIVER
 $\frac{7}{16}$ " WRENCH

8/8/73

E-29 REACHING STRUT ASSY.

436'
Main

417'
Reaching

417'
Reaching

2" EYE ON EACH
SIDE OF MAST

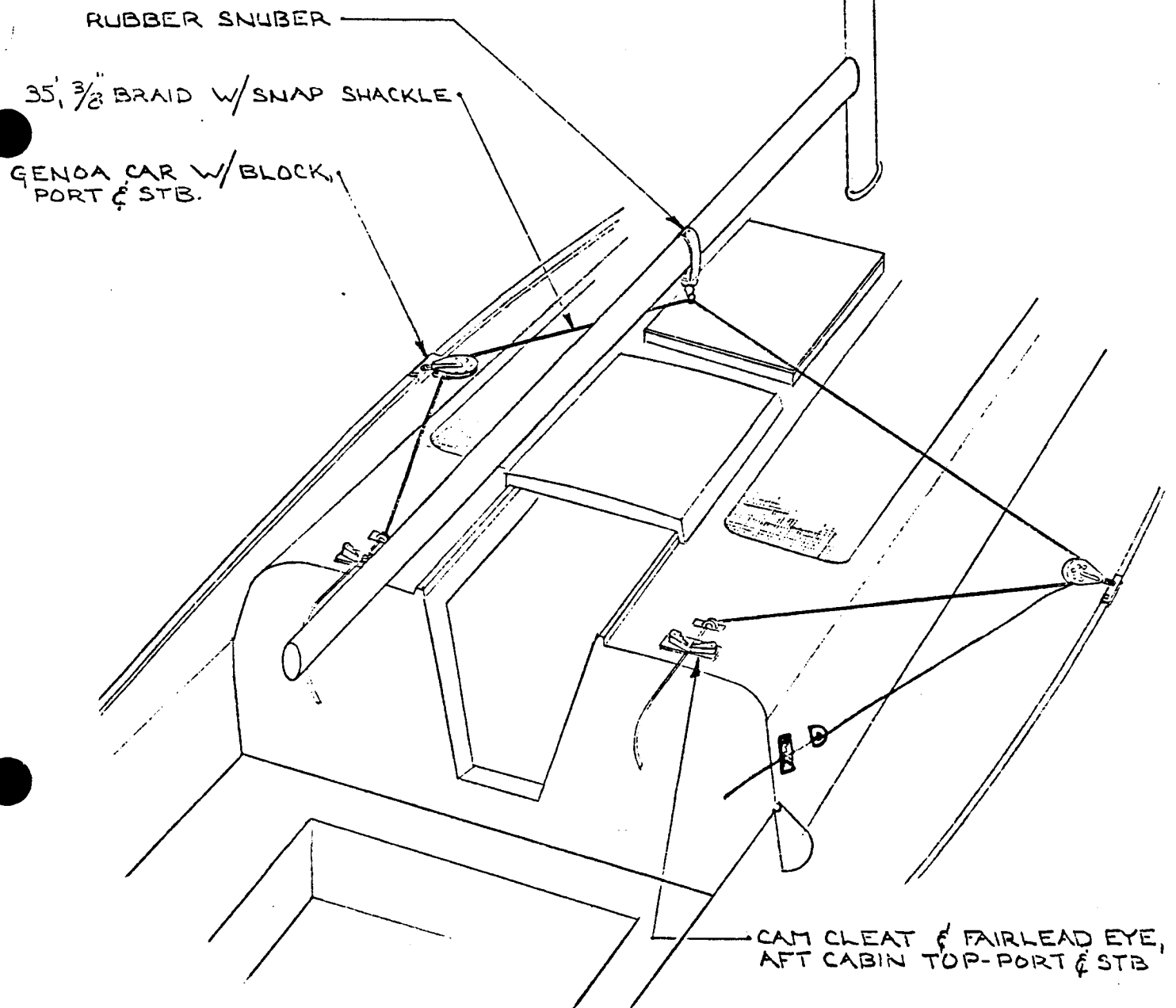
2.5' REACHING

6'-0"

3'-6"

3"

J-12.24

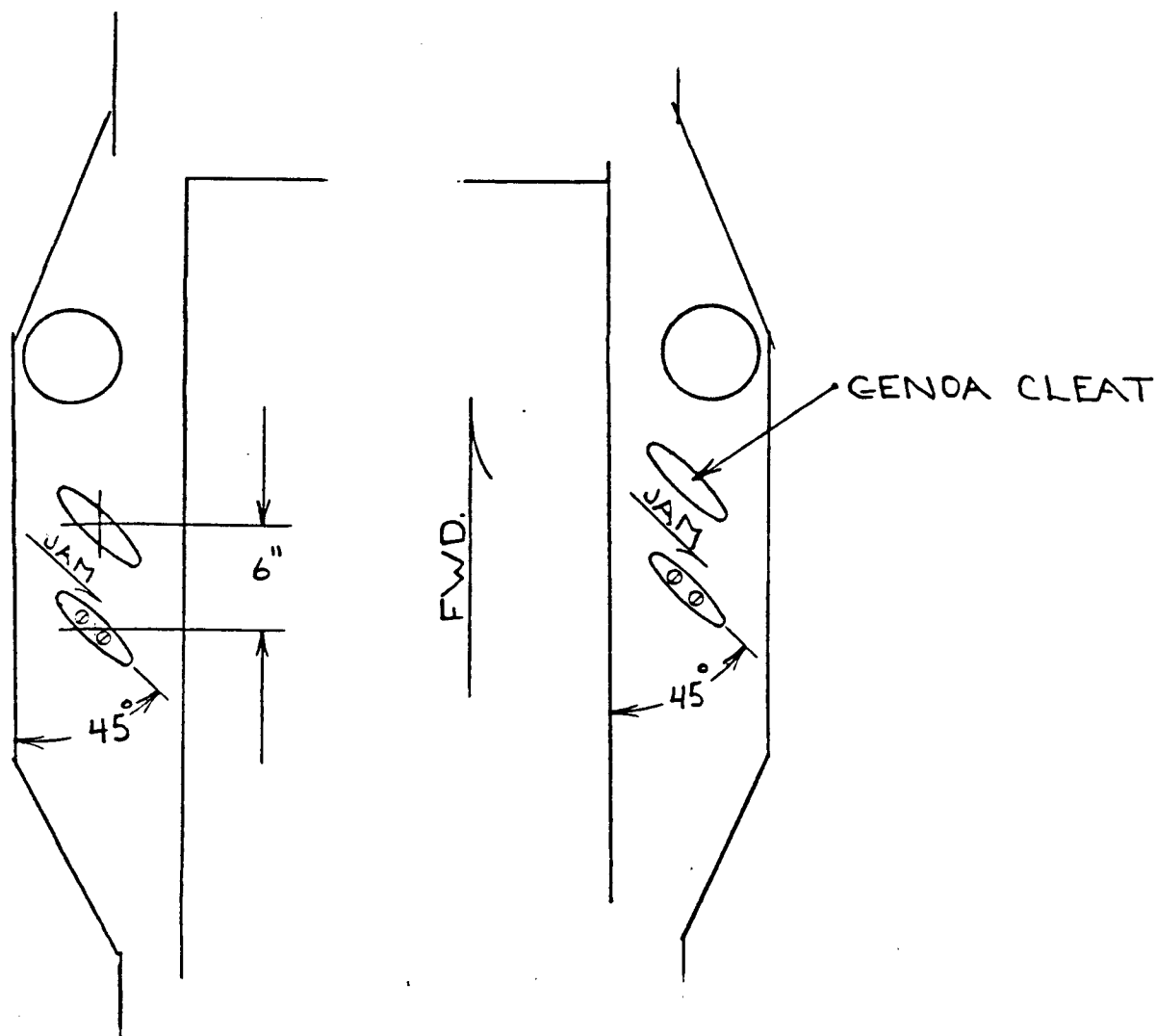


NOTES:

BOOM VANG AS PICTURED ABOVE IS STOCK WITH THE EXCEPTION OF THE CAM CLEATS & FAIRLEAD EYES ON THE CABIN TOP.

-12/11/74-

E-29 / E-27 SPINNAKER GEAR

MATERIAL

2- 6" CLEATS
 4- $\frac{1}{4}$ / 20 X 3" F.H.B.
 4- $\frac{1}{4}$ " FLAT WASHERS
 4- $\frac{1}{4}$ " LOCK WASHERS

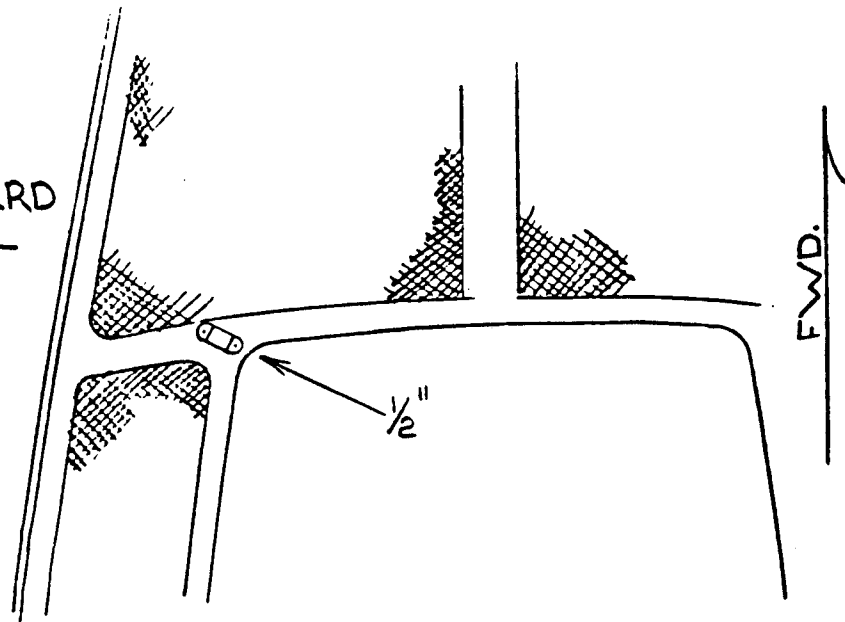
TOOLS

AIR DRILL
 $\frac{1}{4}$ " BIT
 SCREWDRIVER
 $\frac{3}{16}$ WRENCH

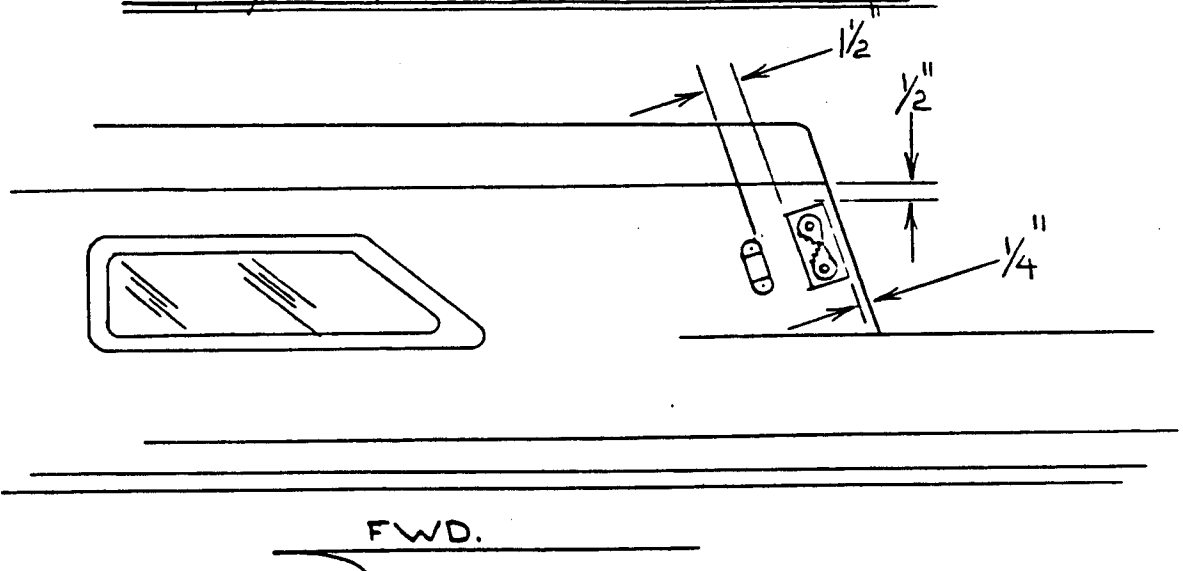
7/31/73

NOTE:

FAIRLEAD EYE
WILL AIM TOWARD
BLOCK ON FORE-
DECK.



VIEW/ PORT, FWD. CORNER OF CABIN



VIEW/ PORT, AFT. END OF CABIN

MATERIAL

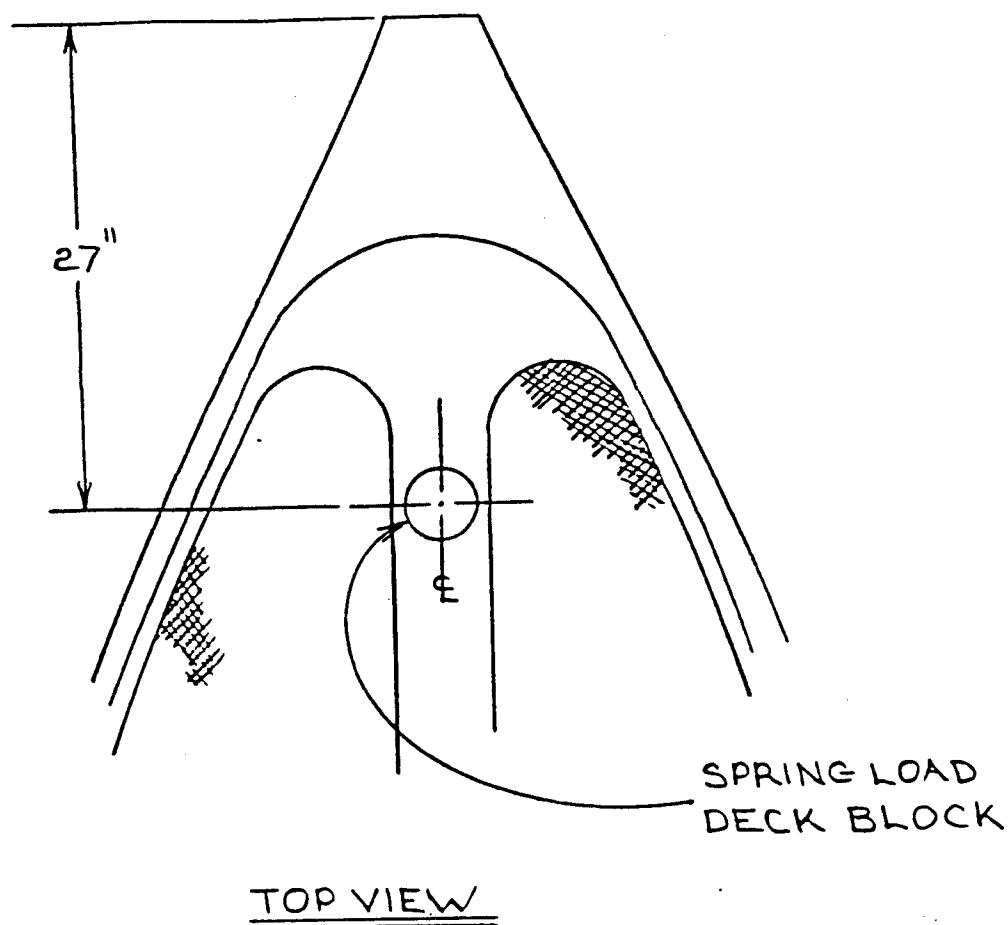
2- FAIRLEAD EYES W/SCREWS.
1- CAM CLEAT W/HARDWARE.
DOLPHINITE

TOOLS

AIR DRILL
1/8" BIT
9/64" BIT
SCREWDRIVER
3/8" WRENCH

7/27/73

E-29 / E-27 SPINNAKER GEAR

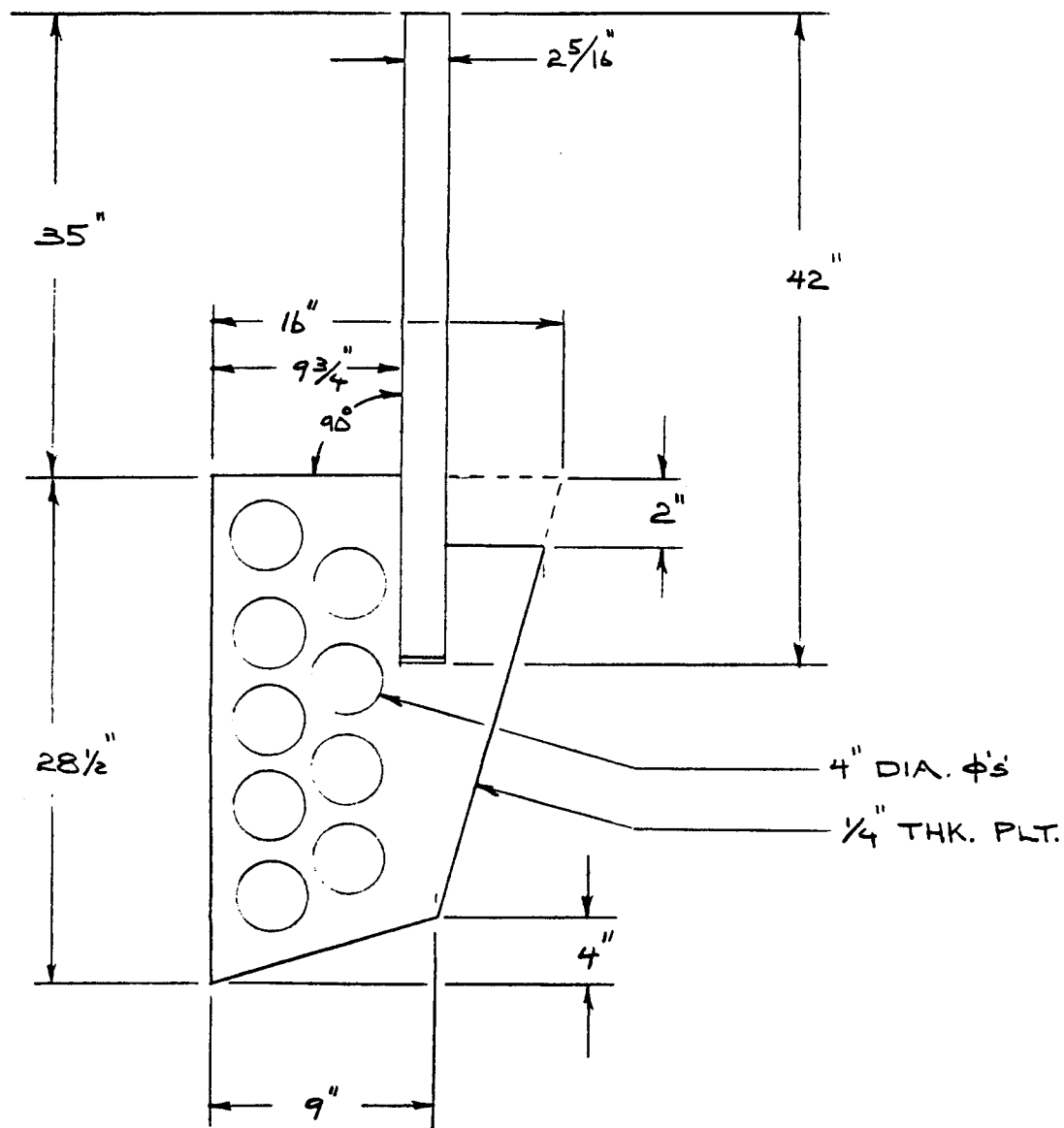
MATERIAL

1- SPRING LOADED DECK BLOCK.
 4- *10X2" R.H.B
 4- *10 FLAT WASHERS
 4- *10 STANDARD NUTS
 DOLPHINITE

TOOLS

AIRDRILL
 9/64 BIT
 SCREWDRIVER
 3/8 WRENCH.

7/27/73



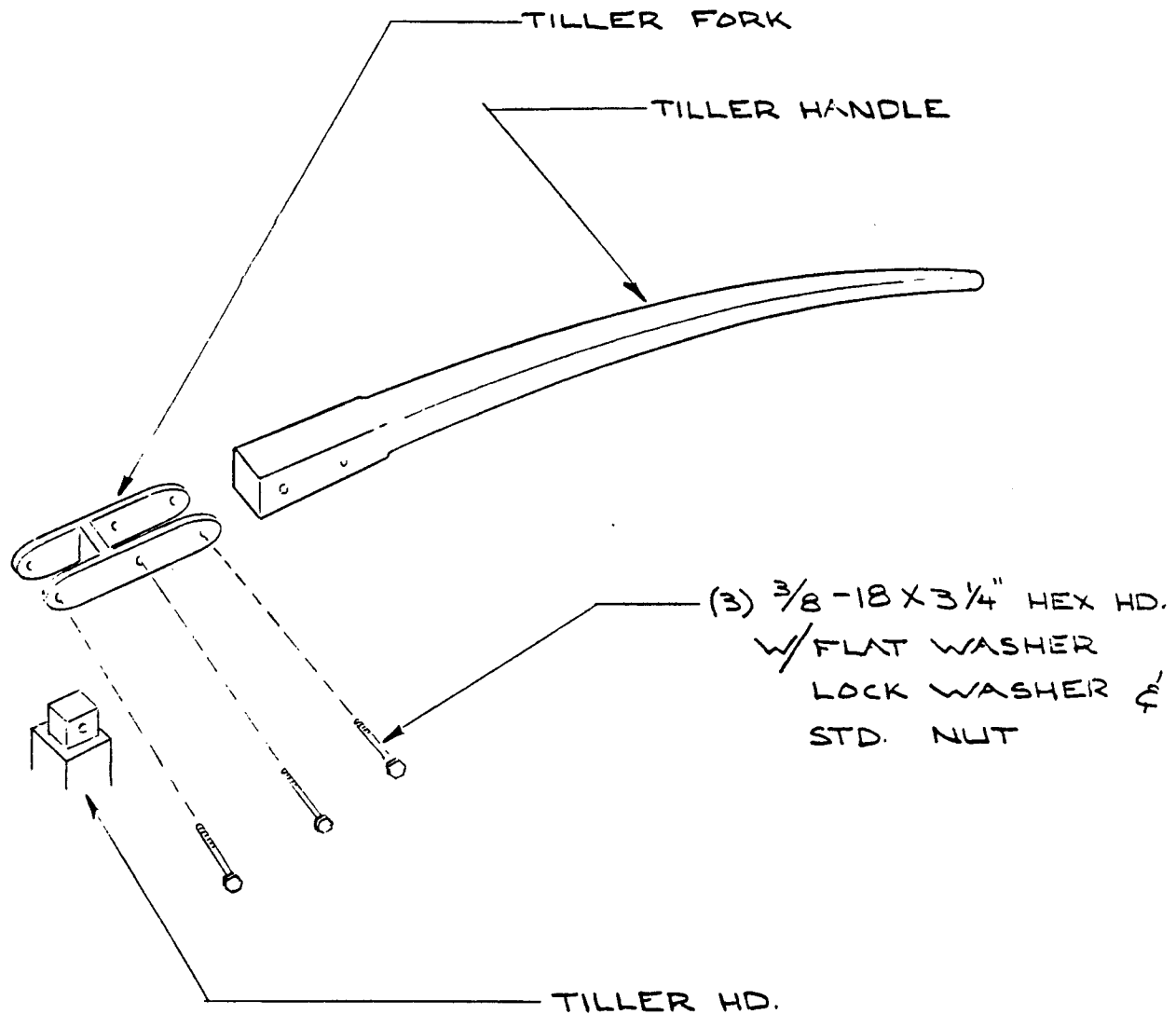
NOTE:

CAP BOTTOM OF TUBE.

6/12/75
E/28/75

E-27 TILLER ASSY.
E 29

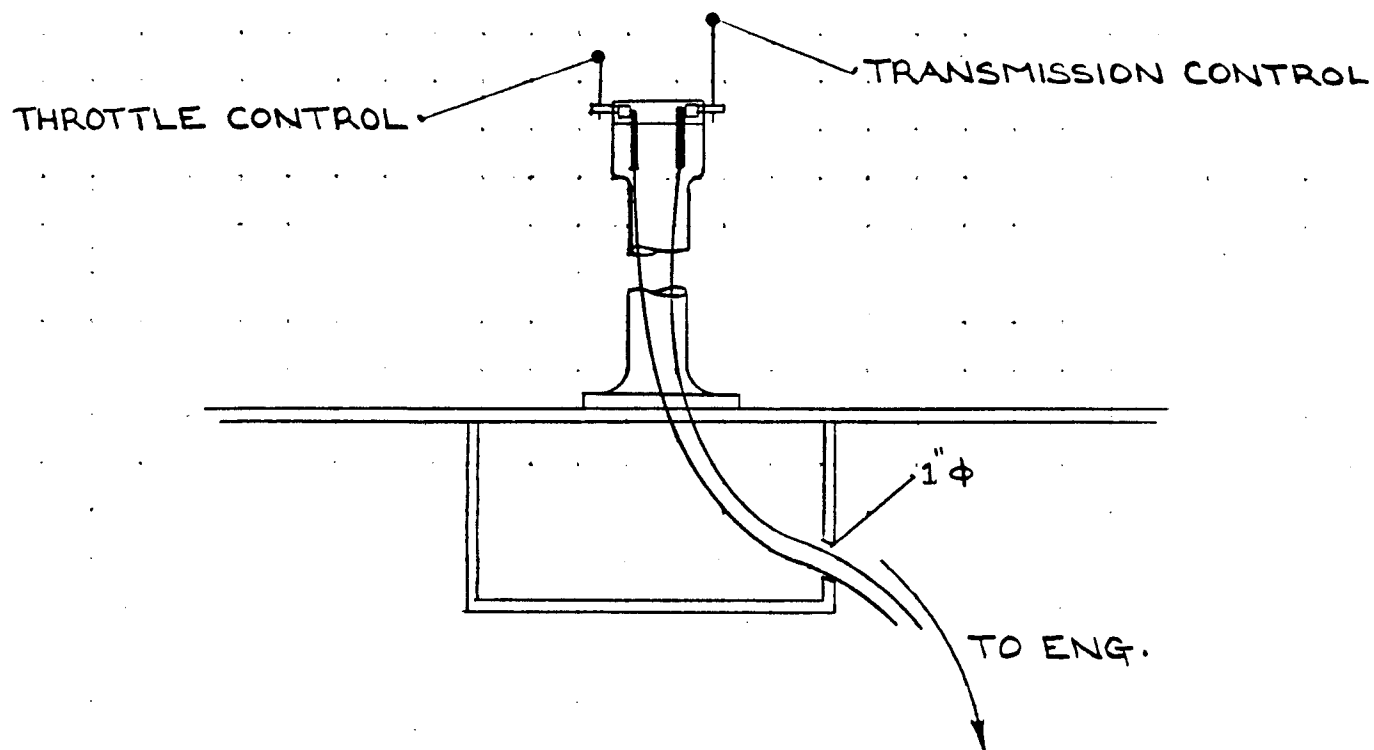
010



NOTES:

SIDES OF TILLER HANDLE MAY NEED
TO BE SANDED DOWN SO THAT THE
TILLER FORK WILL SLIP OVER THE END.

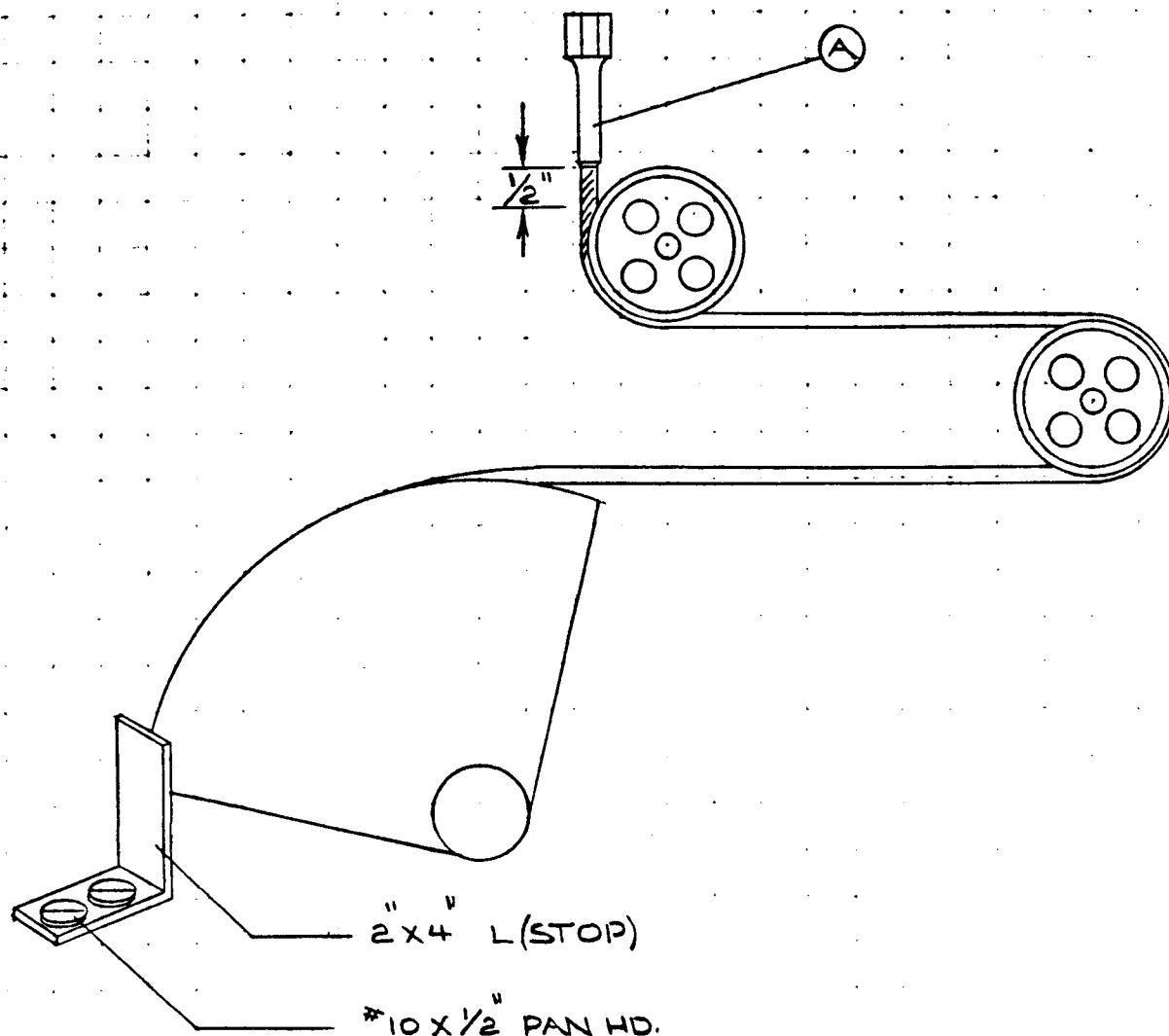
3/4/75



LOOKING AFT AT PEDESTAL

TO RE-LOCATE ENG. CONTROLS
DRILL A 1" HOLE IN THE PORT
SIDE OF THE BOX UNDER BRIDGE-
DECK, ANGLE HOLE SLIGHTLY
UPWARDS. PASS CABLES THRU
HOLE AND UP PEDESTAL TO
CONTROL HEAD. INSTALL
CABLES IN CONTROL HEAD,
AS PER "YACHT SPECIALTIES"
INSTALLATION INSTRUCTIONS.

2/26/74



RUDDER STOPS:

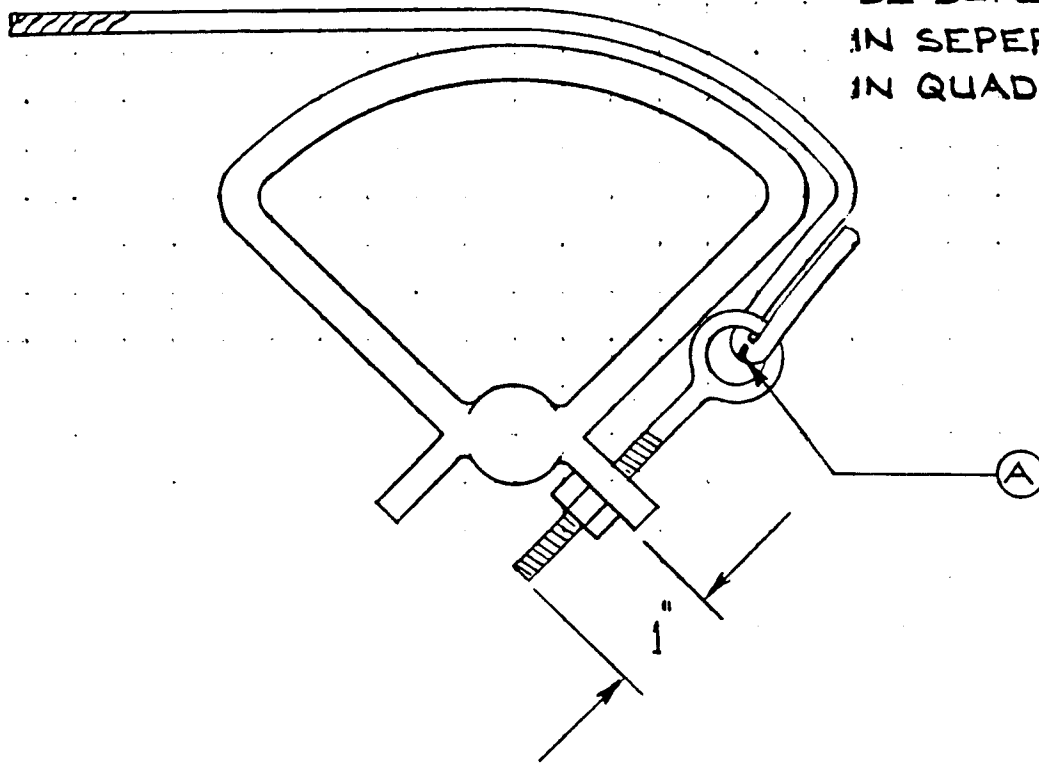
AFTER ALL CABLES ARE INSTALLED
TURN WHEEL UNTILL CABLE END
FITTING (A) IS ABOUT $\frac{1}{2}$ " AWAY FROM
PULLEY. WITHOUT MOVING WHEEL
FROM THIS POSITION INSTALL 2"x4" L
STOP IN LOWER CORNER OF QUADRANT.
(SHOWN ABOVE), USE *10 x $\frac{1}{2}$ " PAN HD. SCREWS.

REPEAT ABOVE FOR OTHER STOP.
BASIC WHEEL STEERING UNIT IS NOW
COMPLETE.

2/26/74

NOTE:

BE SURE CABLE'S ARE
IN SEPERATE GROOVES
IN QUADRANT.



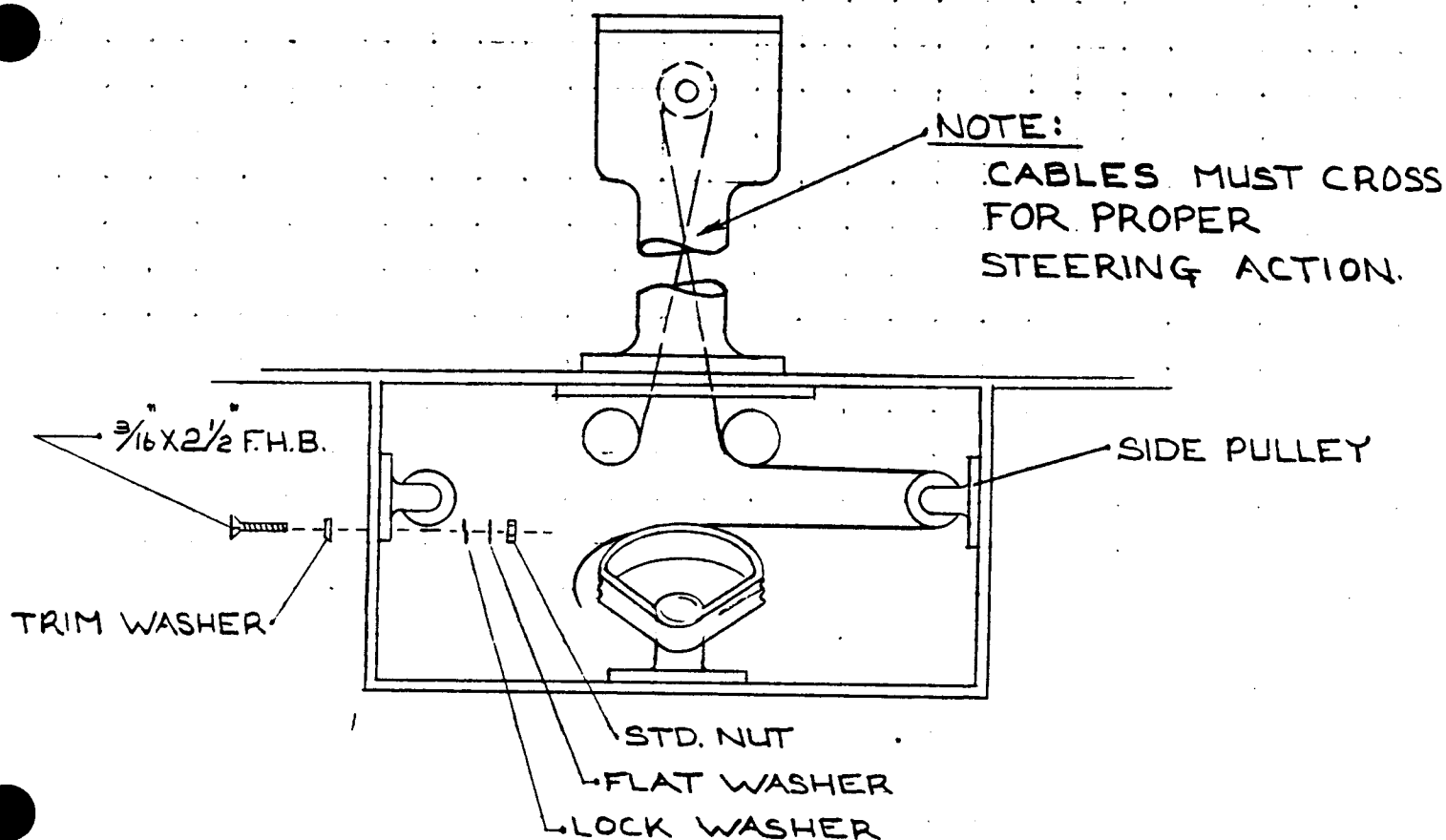
TOP VIEW OF QUADRANT

FIRST CENTER RUDDER AND
SET EYE BOLT IN PLACE, THREAD NUT
UP 1" (SEE ABOVE). PULL CABLE THRU EYE
BOLT AS TIGHT AS POSSABLE AND MARK
CABLE, (A).

REMOVE EYE BOLT FROM QUADRANT AND
NICO-PRESS CABLE ON EYE BOLT AT
POSITION MARKED. CUT OFF EXCESS
CABLE AND RE-INSTALL EYE BOLT ON
QUADRANT.

REPEAT ABOVE FOR OTHER CABLE AND
TIGHTEN DOWN BOTH EYE BOLTS
AFTER INSTALLATION IS COMPLETE.

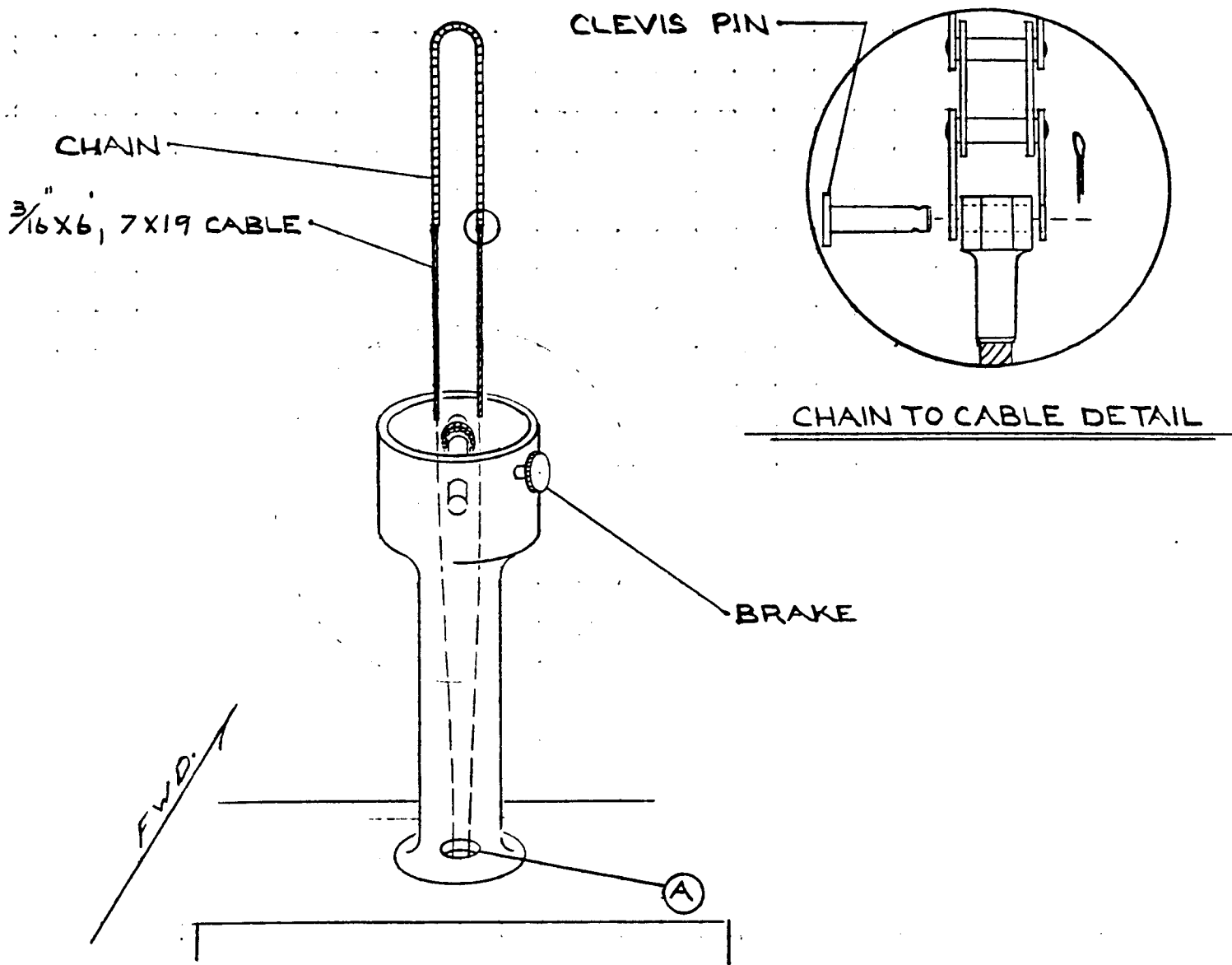
2/26/74



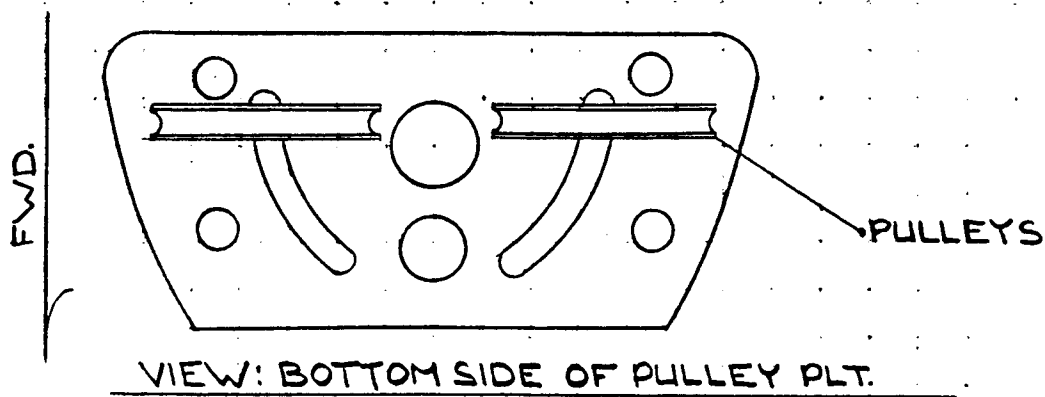
TO MOUNT SIDE PULLEYS RUN CABLE THRU PULLEY AND HOLD PULLEY IN PLACE, CHECK CABLE ALIGNMENT WITH QUADRANT & MARK HOLES FOR PULLEY BASE. REMOVE PULLEY, DRILL HOLES (3/16), & SECURE PULLEY W/ 3/16 X 2 1/2 F.H.B.

REPEAT ABOVE FOR OTHER SIDE PULLEY.

2/26/74

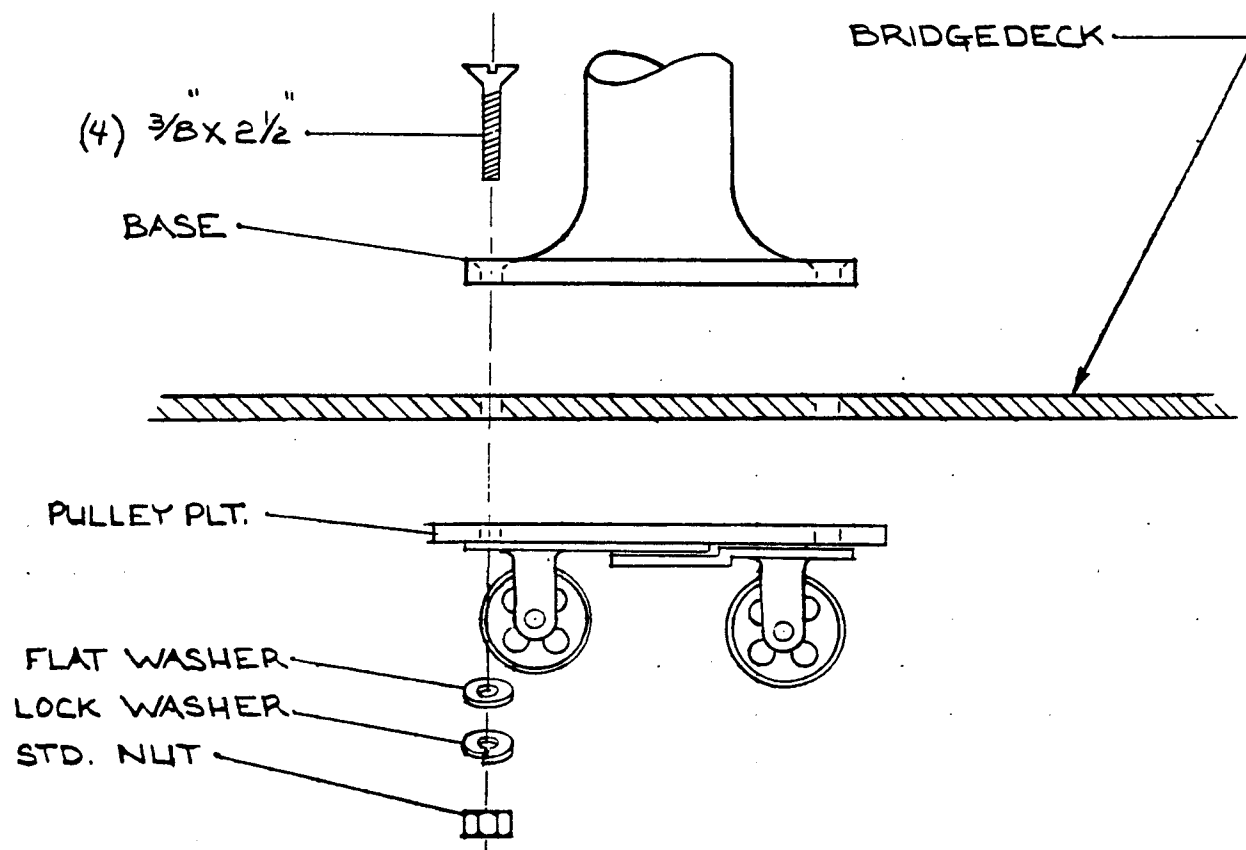


AFTER BASE IS SECURED, CENTER WHEEL
 AND IF UNIT HAS BRAKE SET BRAKE.
 INSTALL CABLES ON ENDS OF CHAIN (ABOVE
 DETAIL), CENTER CHAIN ON CHAIN WHEEL AND
 FEED CABLES THRU CENTER HOLE, (A).

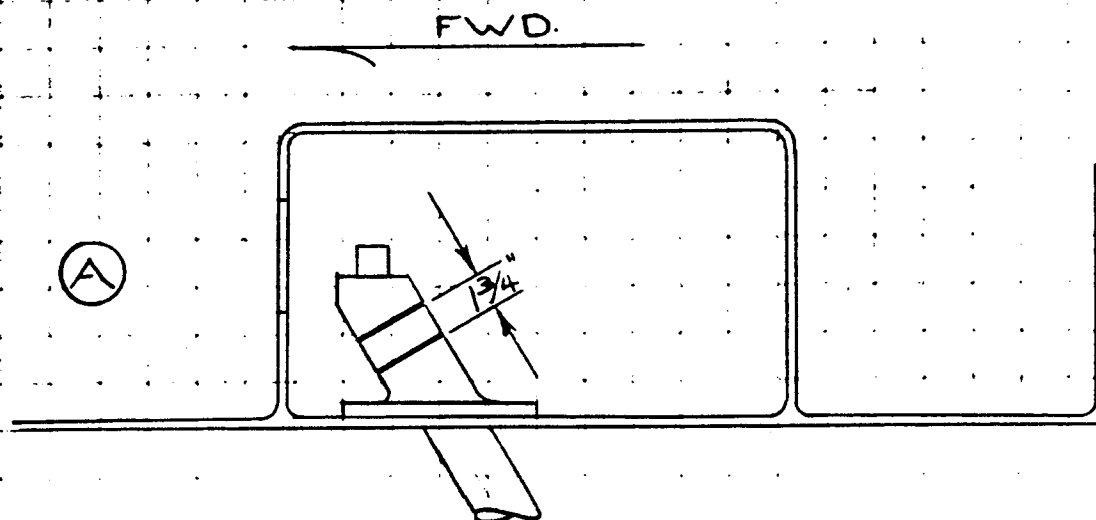


AFTER ALL HOLES ARE DRILLED, LOCK PULLEYS ON PULLEY PLT. IN PLACE RUNNING FROM PORT TO STB, SEE ABOVE.

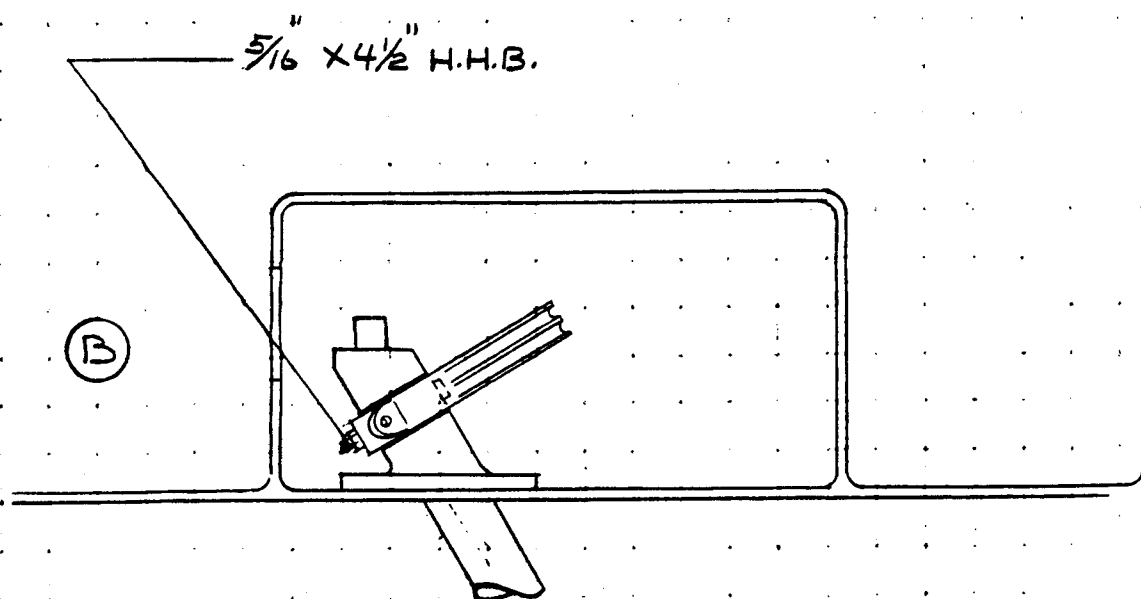
NEXT MOUNT BASE AND PULLEY PLT. BY BOLTING THRU BASE AND PULLEY PLT. WITH 4, $2\frac{1}{2}$ " \times $\frac{3}{8}$ " FLAT HEAD BOLTS. BED BASE W/DOLPHINITE.



2/25/74



IF A BOAT IS BUILT WITHOUT WHEEL STEERER A $1\frac{3}{4}$ " SPACER IS INSTALLED BETWEEN DECK PLT. & TILLER HEAD, (A). THIS SPACER MUST BE REMOVED AND QUADRANT (FOR WHEEL STR.) INSTALLED IN ITS PLACE, (B). SECURE WITH: $\frac{5}{16}$ X $4\frac{1}{2}$ " HEX HEAD BOLT, FLAT WASHER, LOCK WASHER & STD. NUT.

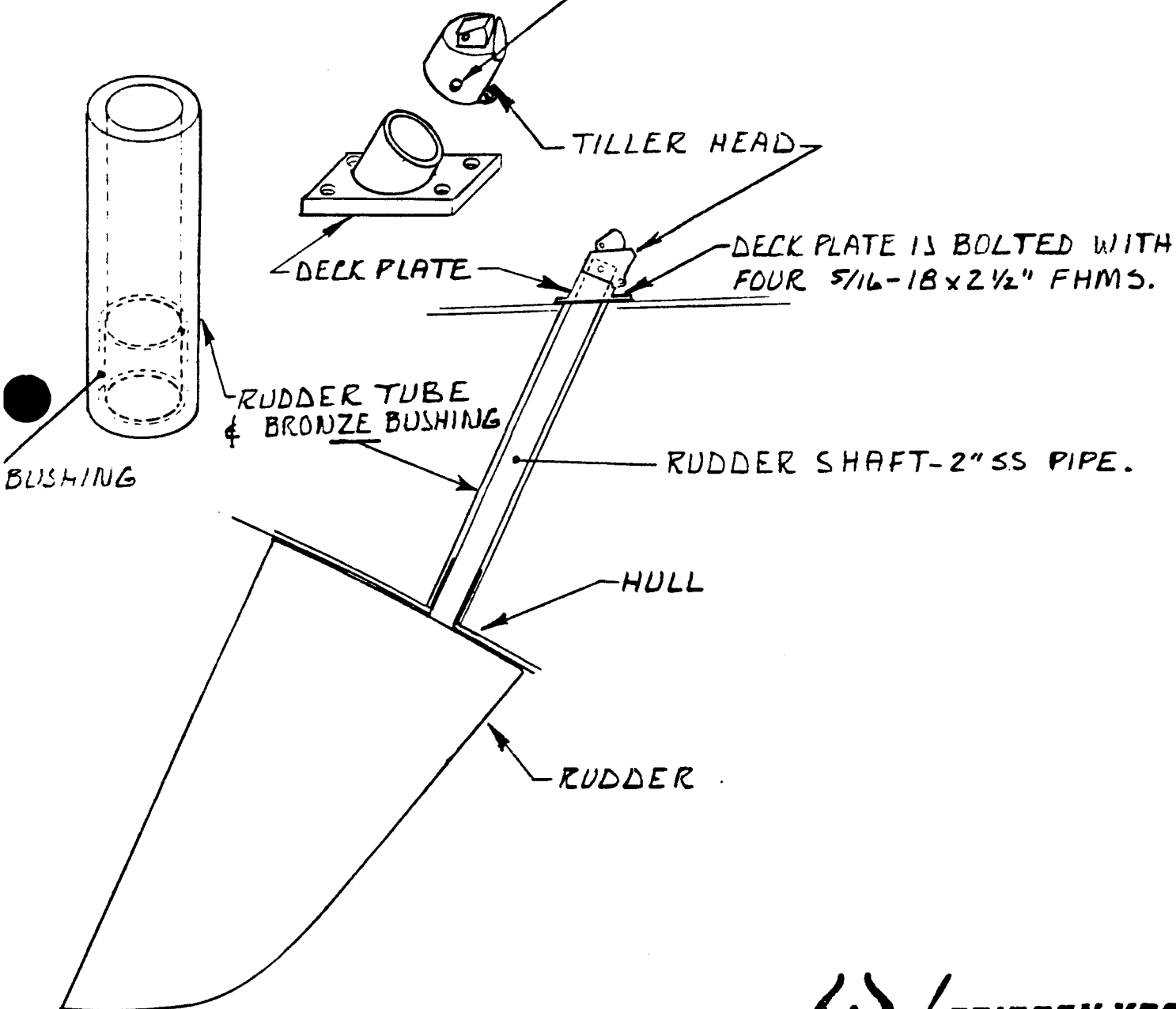


CROSS SECTION OF BRIDGE DECK

2/25/74

E-29 RUDDER DETAIL.

TILLER HEAD & RUDDER SHAFT ARE THRU-BOLTED
WITH 5/16-18 x 3 1/2" S.S. HHMB.

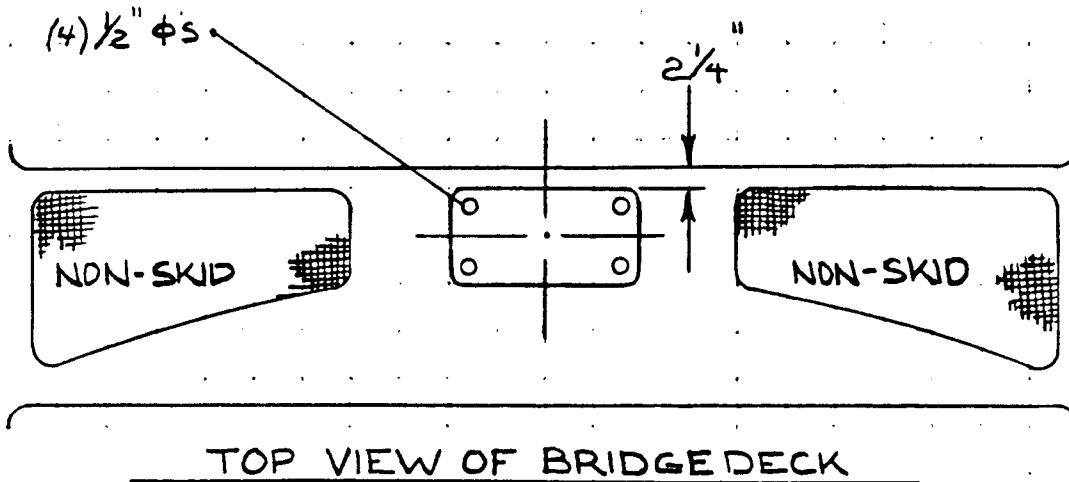


ERICSON YACHTS

1931 Deere Ave., Santa Ana, Calif. 92705

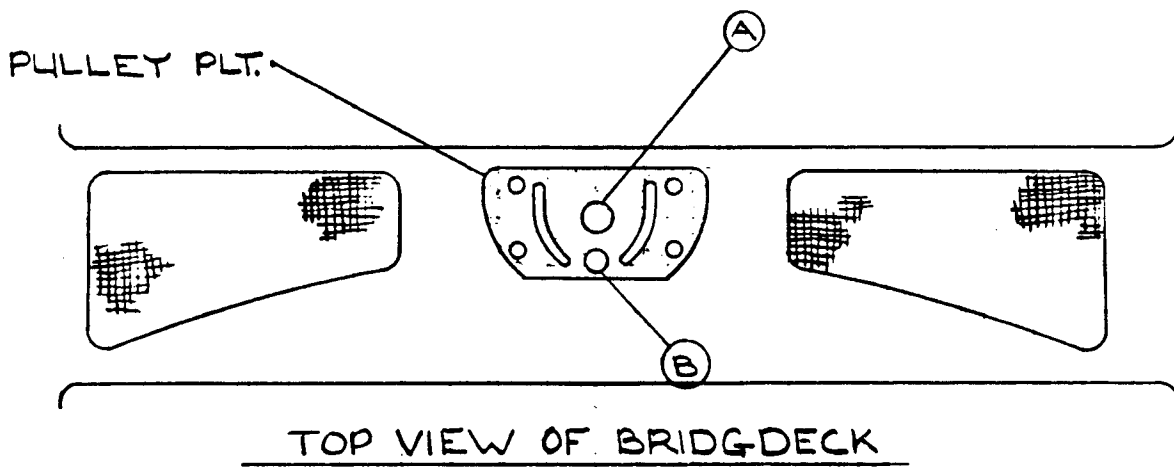
2-16-78 R.P.

FWD.

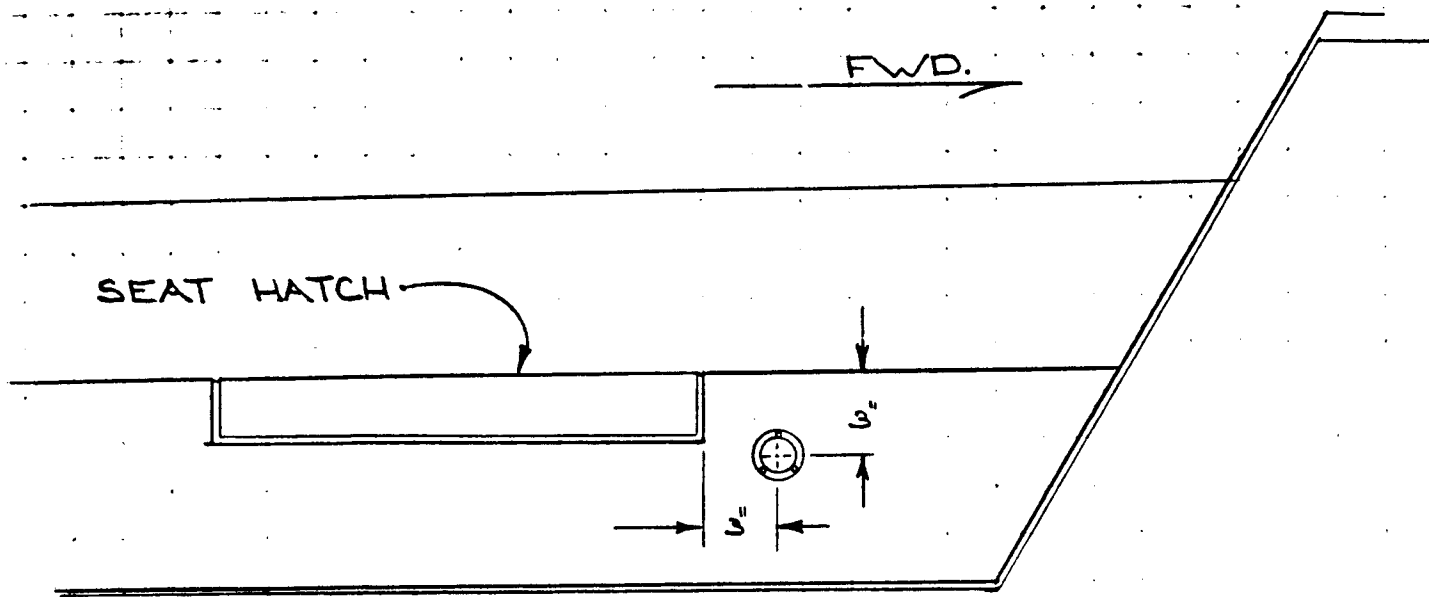


FIRST CENTER BASE FOR WHEEL STEERER BETWEEN NON-SKIDS AND $2\frac{1}{4}$ " FWD. OF AFT EDGE OF BRIDGE DECK. MARK LOCATION OF MOUNTING HOLES, REMOVE BASE AND DRILL HOLES USING A $\frac{1}{2}$ " BIT.

FWD.



SET PULLEY PLT. IN POSITION OVER HOLES DRILLED FOR BASE, MARK CENTER HOLE, (A), AND HOLE FOR ENG. CONTROL CABLES, (B). REMOVE PULLEY PLT. AND USE A 1" DRILL BIT TO DRILL OUT HOLES (A) & (B).



VIEW, STB. SIDE OF COCKPIT

INSTALL HUBBEL "TWIST-LOCK" FLUSH MOUNT MALE FITTING IN POSITION SHOWN ABOVE. USE $2\frac{1}{8}$ " HOLE SAW TO CUT HOLE AND SECURE UNIT W/ 3, $\frac{3}{4}$ " P.H.S.. BED W/ SILICONE SEALANT.

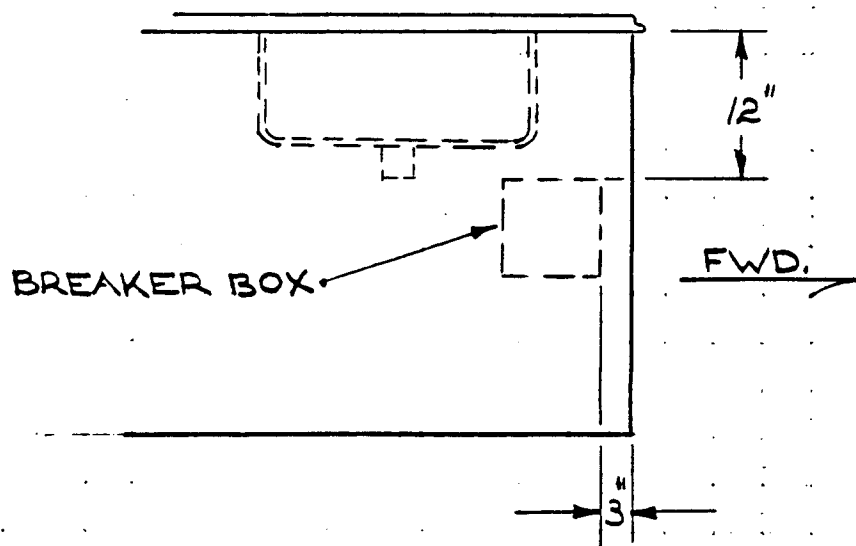
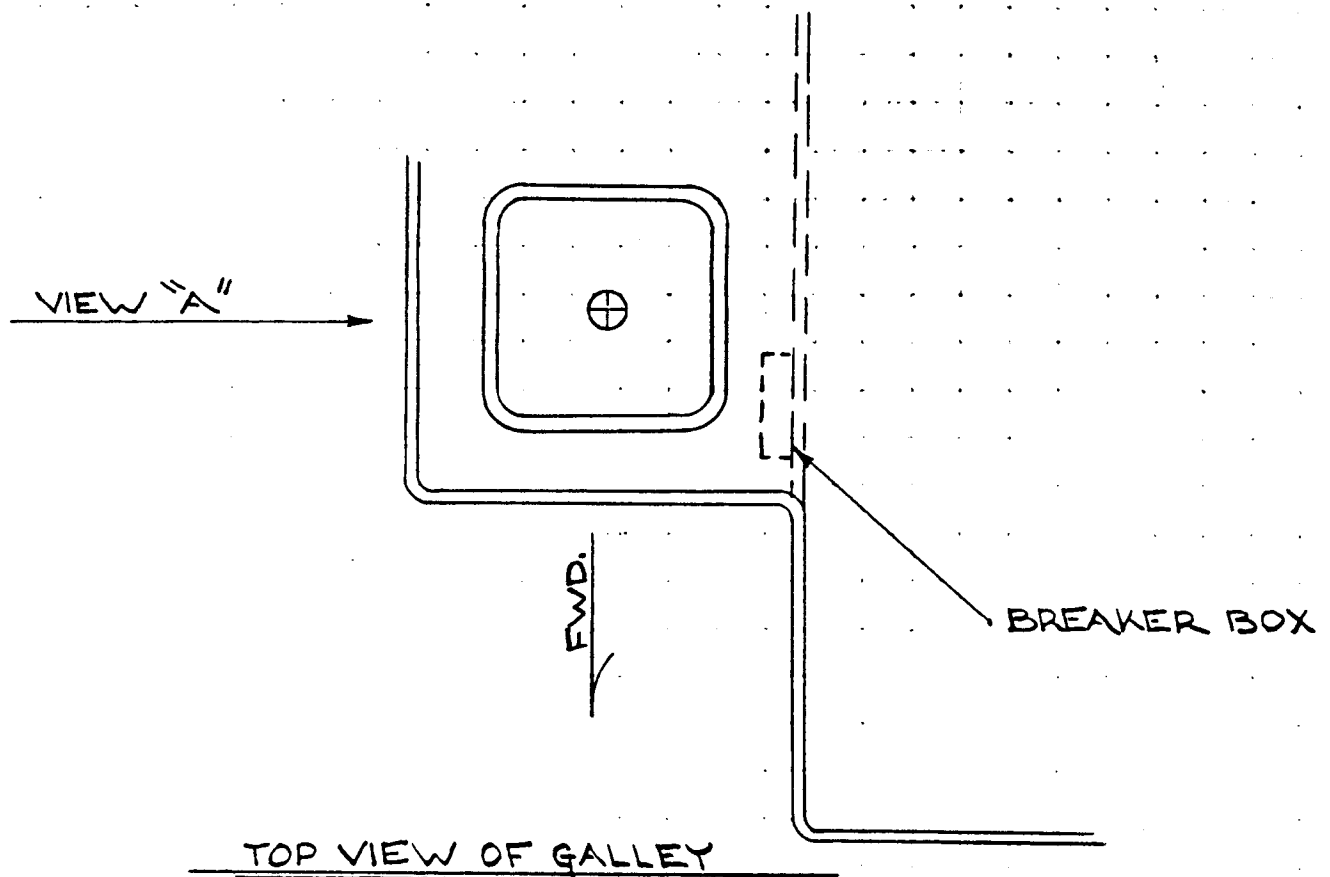
AFTER UNIT IS INSTALLED CONNECT $16\frac{1}{3}$ WIRE TO UNIT AS PER FOLLOWING CODE: BLACK IS (+) POSITIVE
WHITE IS RETURN
GREEN IS GROUND.

AFTER CONNECTION IS COMPLETE, RUN $16\frac{1}{3}$ WIRE TO UNDER GALLEY SINK.

6/10/74

E-27/29. ELECT.
DOCKSIDE POWER

011



VIEW "A"

LOCATE BREAKER BOX
ON PORT SIDE BULKHEAD
UNDER GALLEY SINK
SEE ABOVE. SECURE
BOX W/ 3, *8 X 1 1/4" P.H.S.

4/10/74

20 AMP BREAKER SW'S.

WHITE FROM ACC.
LINE (OUT) TO THIS
TERMINAL

WHITE WIRE
FROM 110 V.
OUTLET LINE
(OUT) TO THIS
TERMINAL

WHITE WIRE
"JUMP" TO
SECOND BREAK-
ER SW.

CONNECT ALL 3
GREEN WIRES
TO TERMINAL
BLOCK & RUN A
#8 GREEN WIRE
TO ENG.

#8 TO
ENG.

CONNECT ALL 3
BLACK WIRES

LINE OUT TO 110V.
OUTLETS (4)

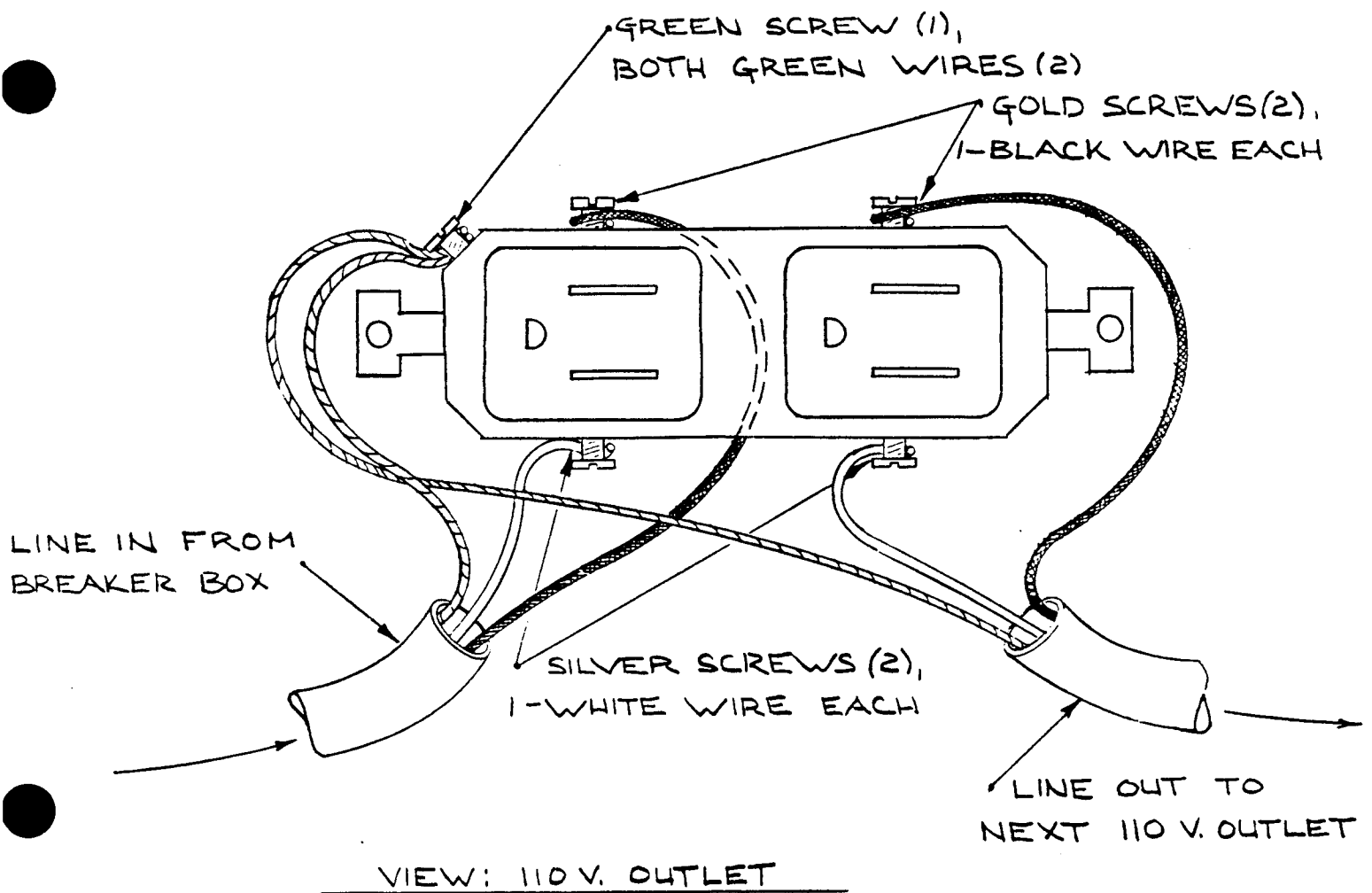
LINE OUT TO
ELECT. ACC. (110V.)

16/3 LINE IN
FROM COCKPIT

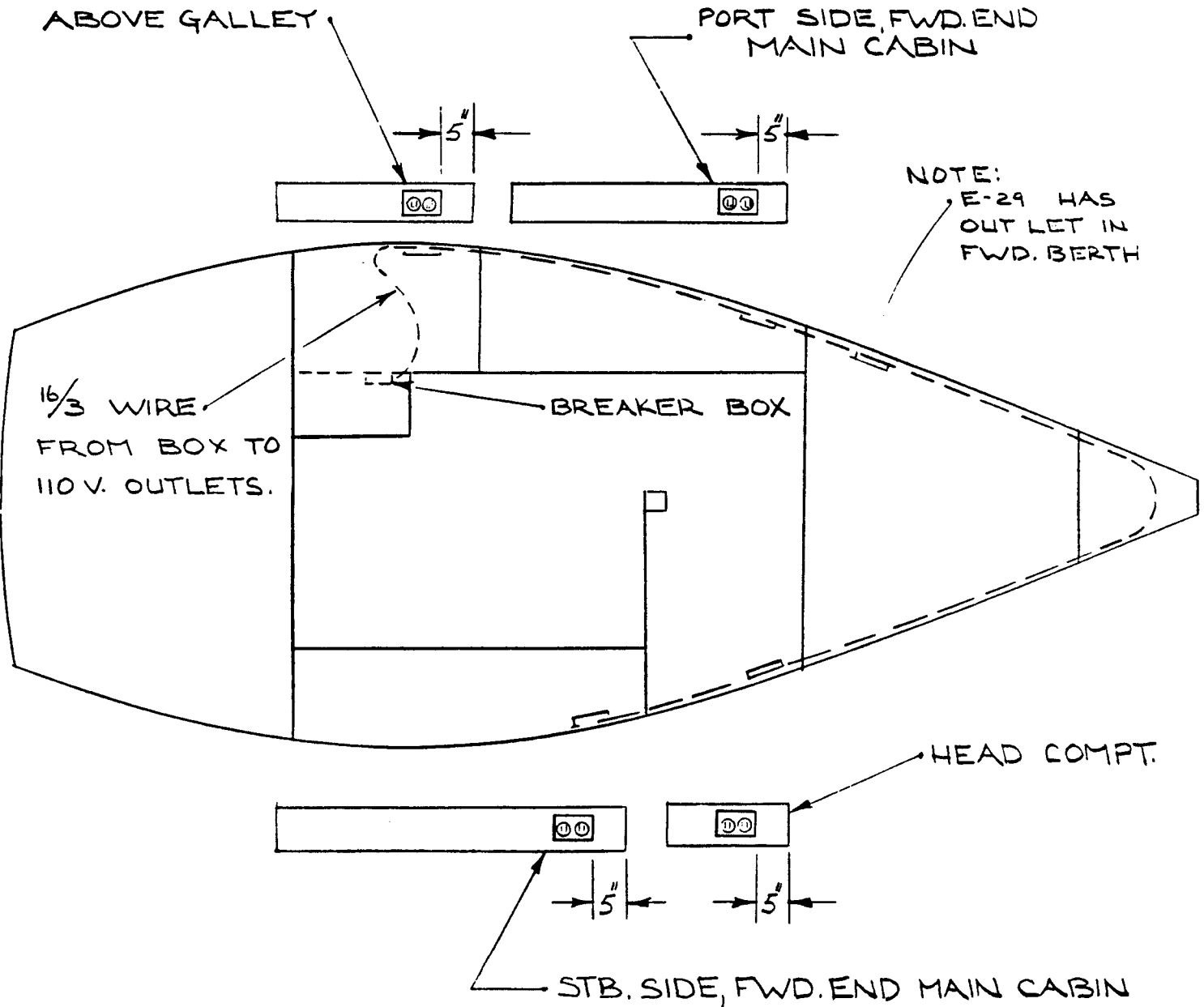
VIEW: BREAKER BOX

REVISED: 6-10-76
6/14/74

E-27/24 ELEC. 1.
DOCKSIDE POWER



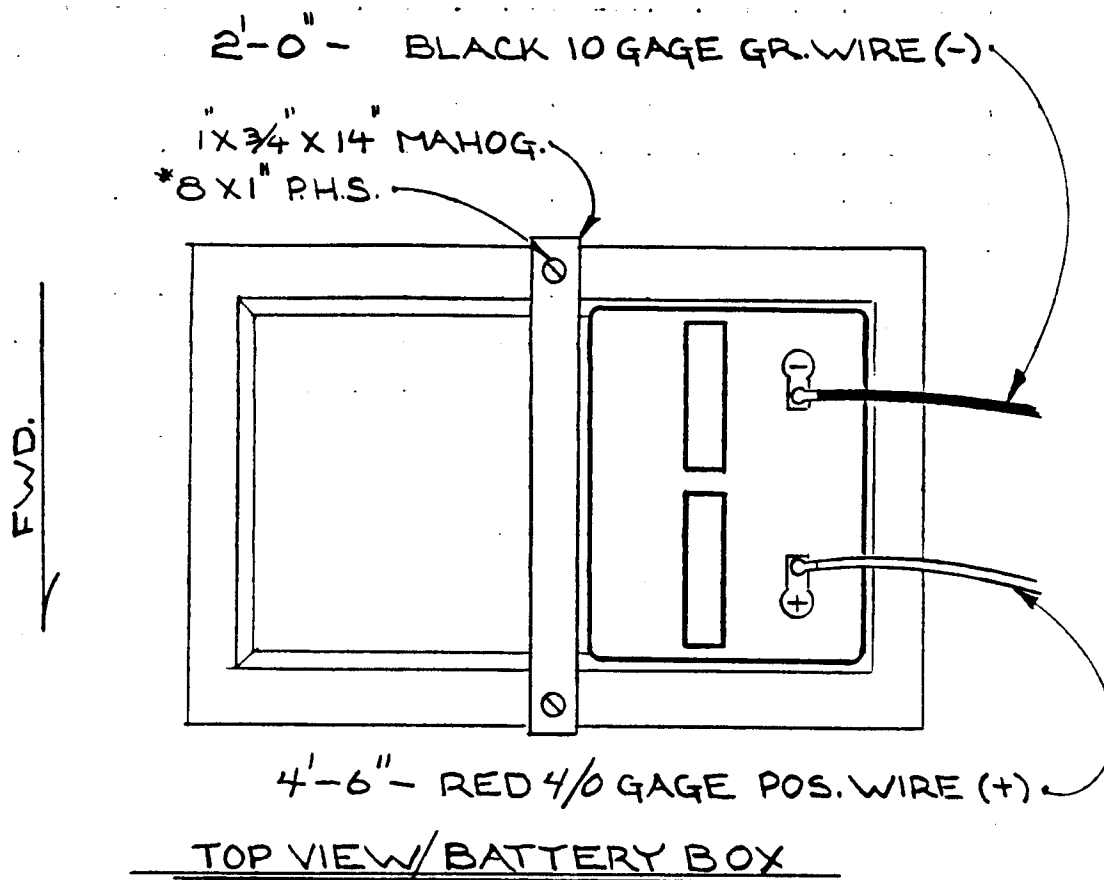
6/13/74



LOCATE 110 V. OUTLETS ON MAHOG. "GUNWALE COVERS" AS SHOWN ABOVE.

6/12/74

E-27/29 ELECT.
SINGLE BATTERY



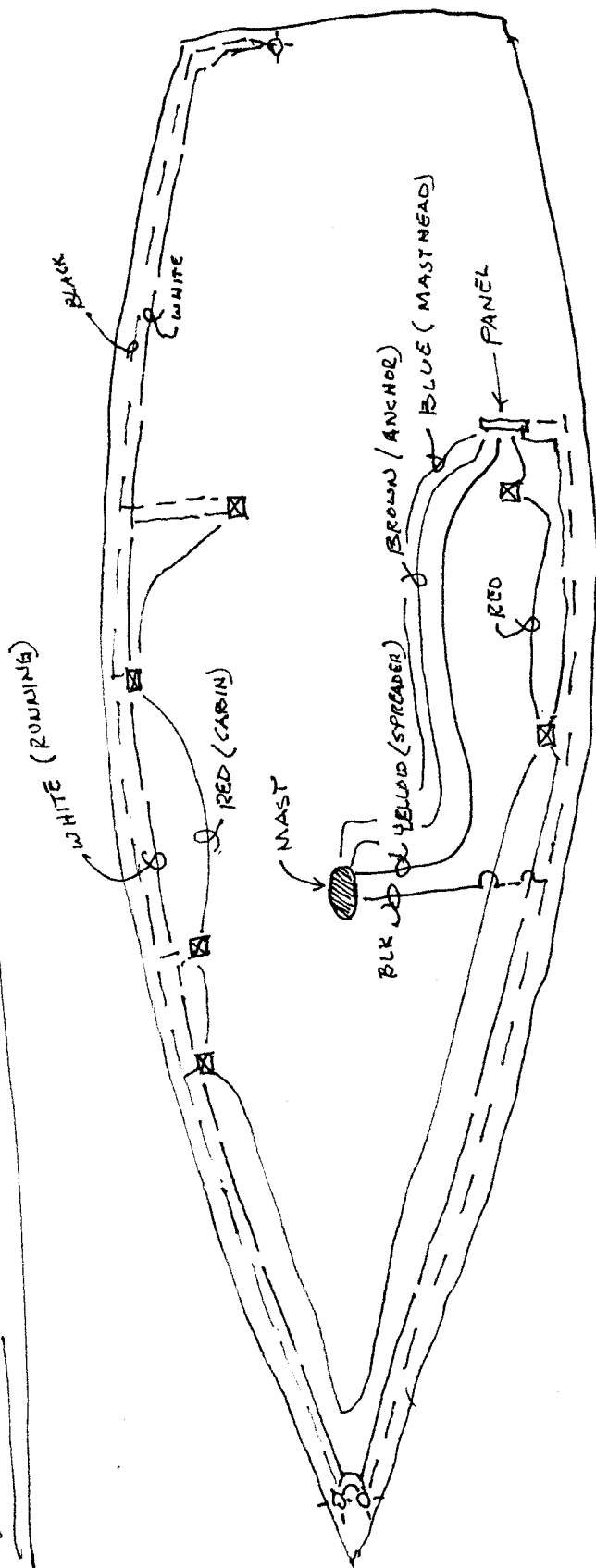
FIRST CONNECT BLACK 10 GAGE WIRE TO THE NEGATIVE (-) POLE ON THE BATTERY. NOW CONNECT OTHER END OF 10 GAGE WIRE TO ENG. BLOCK.

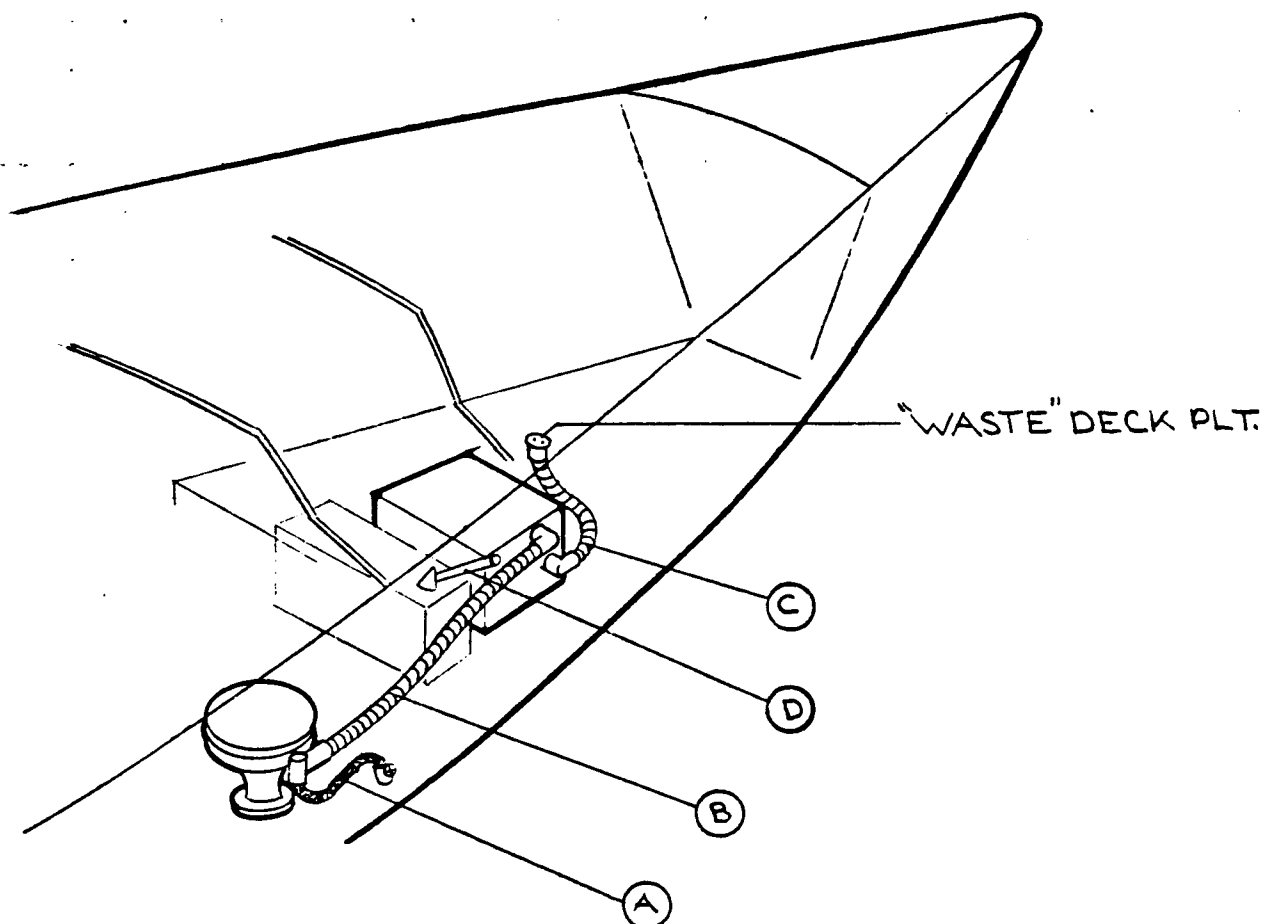
SECOND, CONNECT RED 4/0 WIRE TO THE POSITIVE (+) POLE ON THE BATTERY. NOW CONNECT THE OTHER END TO TERMINAL #1 ON MAIN SWITCH.

SECURE BATTERY IN BOX W/ 1" X 3/4" X 14" MAHOG. BATTEN. SCREW BATTEN TO BOX W/ 2, *8 X 1" P.H.S. .

6/5/74

WIRING SCHEMATIC





- (A) INTAKE, FROM $\frac{3}{4}$ " THRU-HULL TO HEAD.
- (B) DISCHARGE, HEAD TO HOLDING TANK.
- (C) DISCHARGE, TANK TO DECK PLT.
- (D) VENT, TANK TO "PEE-WEE" VENT ON SHEER.

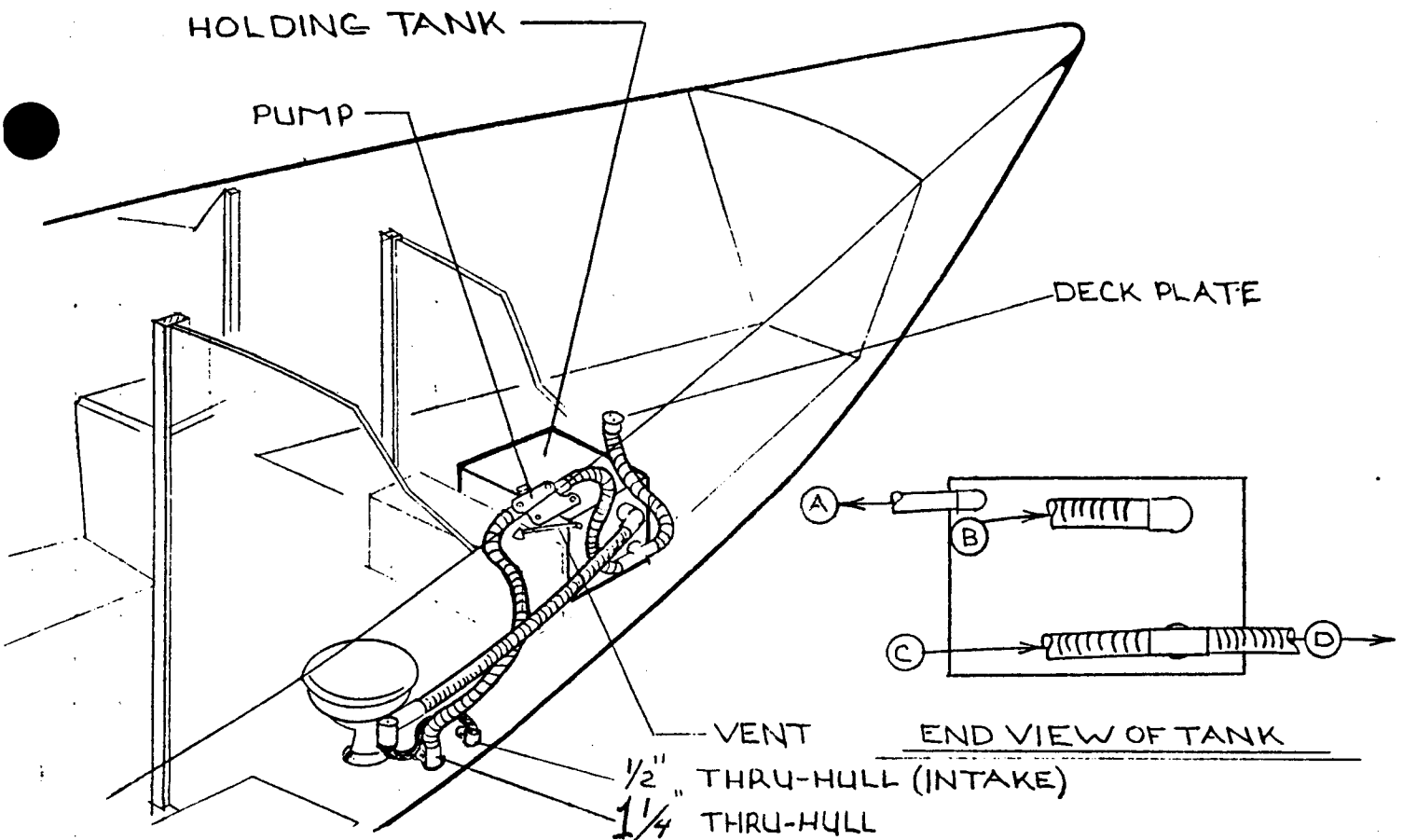
MATERIAL

- 6 - * 28 HOSE CLAMPS
- 2 - * 6 HOSE CLAMPS
- 10' - $\frac{1}{2}$ " CLEAR HOSE
- 2' - $\frac{3}{4}$ " CLEAR HOSE
- 10' - $\frac{1}{2}$ " U-2 WASTE HOSE
- 1 - PEE-WEE VENT
- 2 - $\frac{1}{2}$ " 90° ELL
- 4 - HOSE COLLARS
- 1 - E-27 HOLDING TANK
- 1 - WASTE DECK PLT.



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9/20/73

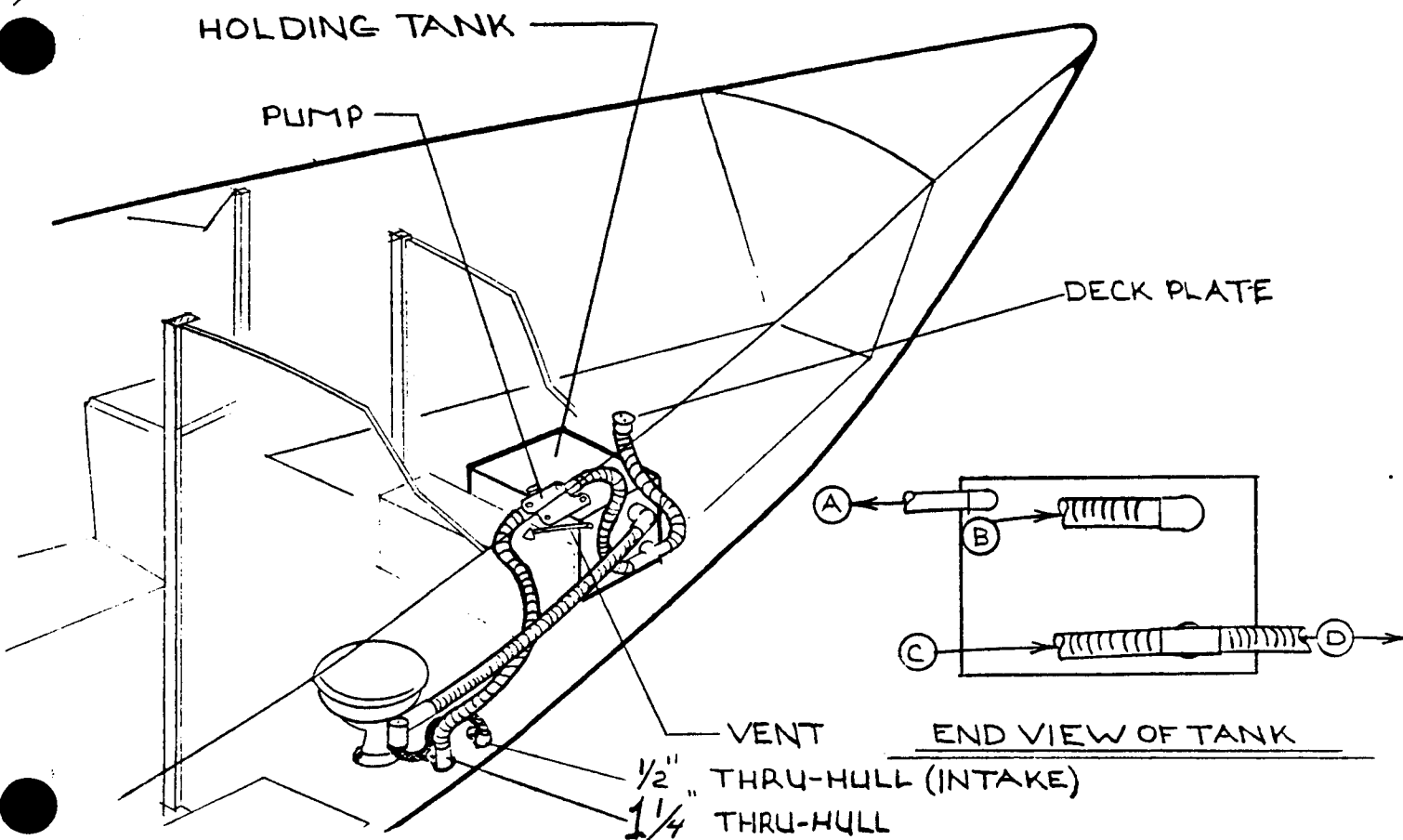


MATERIAL

- 10- #28 HOSE CLAMPS
- 2- #6 HOSE CLAMPS
- 10' 1/2" CLEAR HOSE
- 2' 3/4" CLEAR HOSE
- 15' 1 1/2" U-2 WASTE HOSE
- 1 - PEE WEE VENT
- 1 - 1 1/2" PVC. TEE
- 1 - 1 1/2" 90° ELL.
- 1 - 1/2" 90° ELL.
- 1 - WHALE GUISHER PUMP
- 8- HOSE COLLARS
- 1- E27 HOLDING TANK
- 1- DECK PLATE
- 1- TUBE CEMENT (FOR HOSE ADAPTORS)

8/29/73

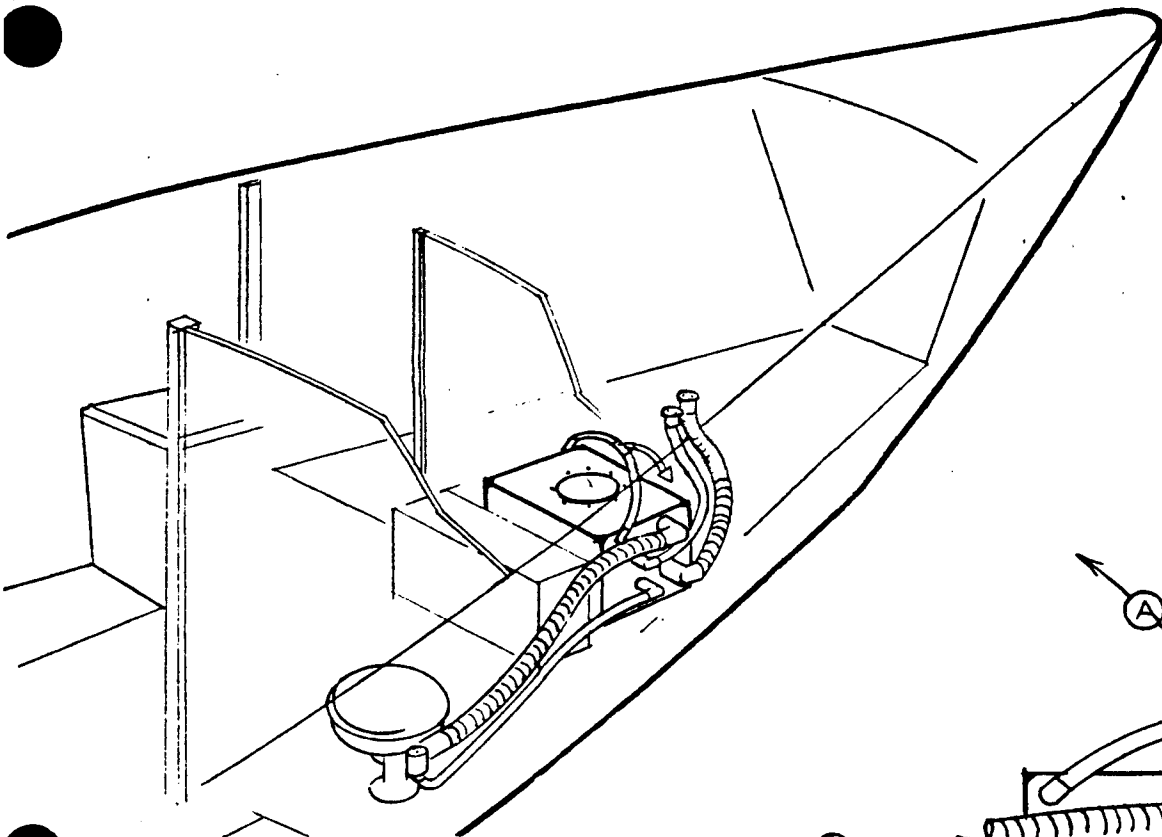
E-29/E-27 HOLDING TANK W/OVERBOARD DISCHARGE



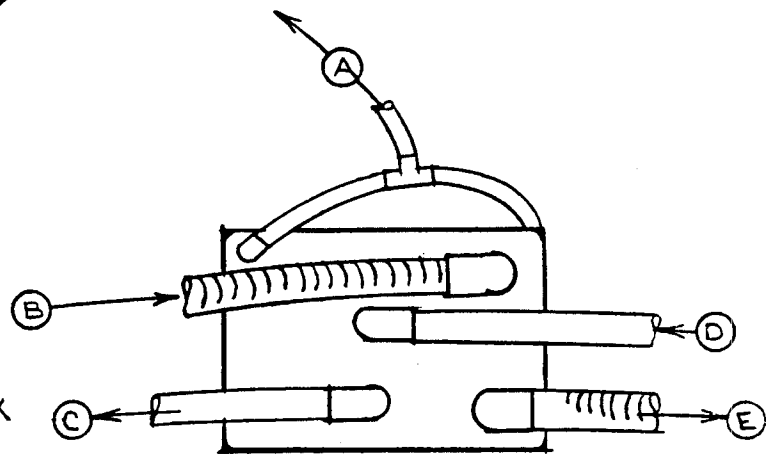
MATERIAL

- 10- #28 HOSE CLAMPS
- 2- #6 HOSE CLAMPS
- 10' $\frac{1}{2}$ " CLEAR HOSE
- 2' $\frac{3}{4}$ " CLEAR HOSE
- 15' $1\frac{1}{2}$ " U-2 WASTE HOSE
- 1- PEE WEE VENT
- 1- $1\frac{1}{2}$ " PVC. TEE
- 1- $1\frac{1}{2}$ " 90° ELL.
- 1- $\frac{1}{2}$ " 90° ELL.
- 1- WHALE GUSHER PUMP
- 8- HOSE COLLARS
- 1- E-27 HOLDING TANK
- 1- DECK PLATE
- 1- TUBE CEMENT (FOR HOSE ADAPTORS)

8/29/73



- (A) VENT, TANK TO SHEER
- (B) DISCHARGE, HEAD TO TANK
- (C) INTAKE, TANK TO HEAD
- (D) FILL, DECK PLT. TO TANK
- (E) DISCHARGE, TANK TO DECK



END VIEW/TANK

MATERIAL

- 8- *28 HOSE CLAMPS
- 6- *6 HOSE CLAMPS
- 12' 1/2" CLEAR HOSE
- 10' 3/4" HOSE
- 1- PEE WEE VENT
- 1- 1/2" TEE
- 2- 1/2" 90° ELL
- 2- 1 1/2" 90° ELL
- 1- E-27 REC. TANK
- B- HOSE COLLARS
- 1- WASTE DECK PLT.
- 1- FILL DECK PLT. (PLAIN)

- 12'-1 1/2" U-2 WASTE HOSE
- 2- 3/4" NIPPLES



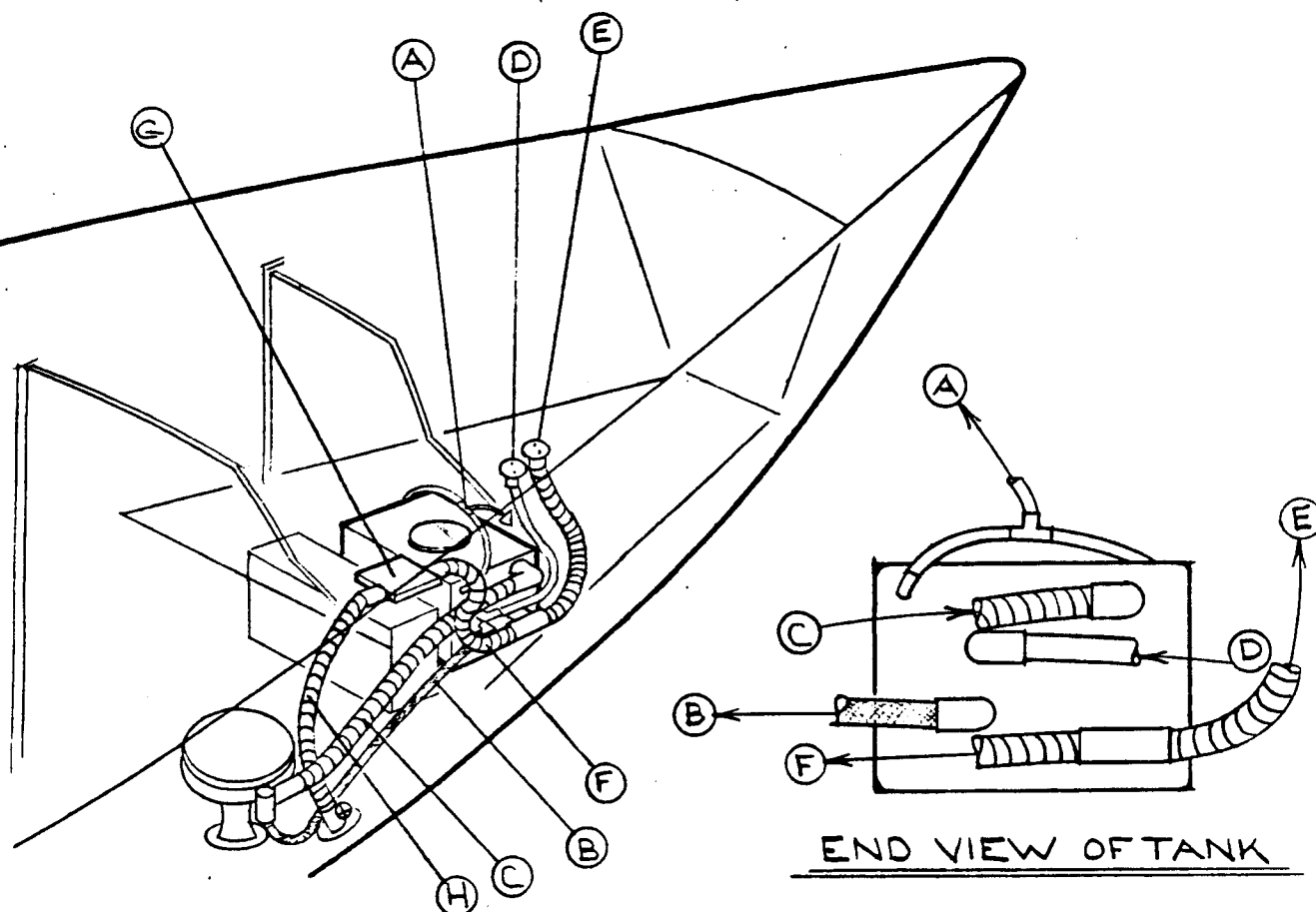
ERICSON YACHTS

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9/17/73

E-29/E-27 RECIRCULATING TANK
W/OVERBOARD DISCHARGE

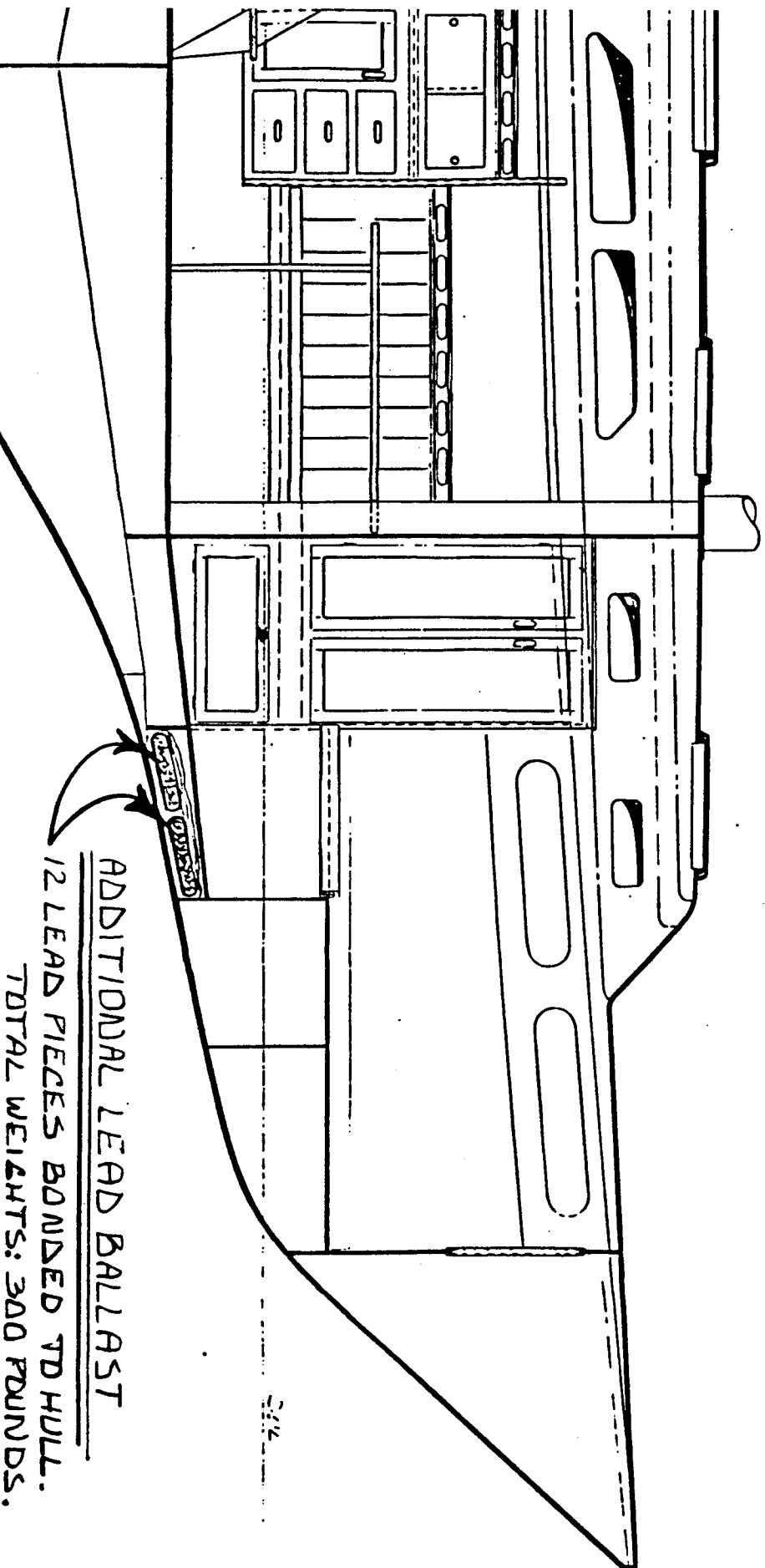
021



- Ⓐ VENT TUBE, FROM TANK TO PEE-WEE VENT ON SHEER.
- Ⓑ HEAD INTAKE, FROM TANK TO HEAD.
- Ⓒ HEAD DISCHARGE, FROM HEAD TO TANK.
- Ⓓ TANK FILL, DECK PLT. TO TANK.
- Ⓔ WASTE, FROM "TEE" ON TANK TO DECK PLT.
- Ⓕ WASTE, FROM "TEE" ON TANK TO WHALE GUSHER PUMP.
- Ⓖ WHALE GUSHER PUMP.
- Ⓗ DISCHARGE, WHALE GUSHER PUMP TO 1/4" THRU-HULL.

9/20/73

E-29 ADDITIONAL LEAD BALLAST



ADDITIONAL LEAD BALLAST

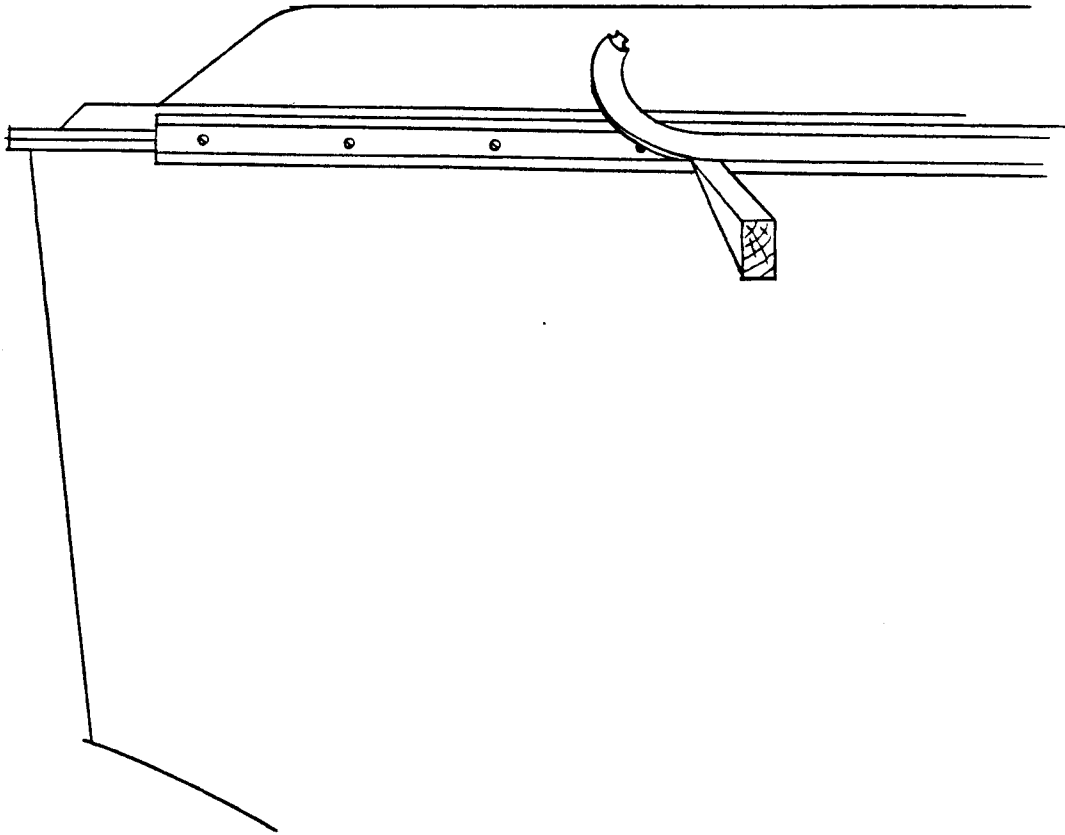
12 LEAD PIECES BONDED TO HULL.
TOTAL WEIGHTS: 300 POUNDS.



ERICSON YACHTS
2841 Deane Ave., Suite 100, Oak, CA 94705

7/24/78

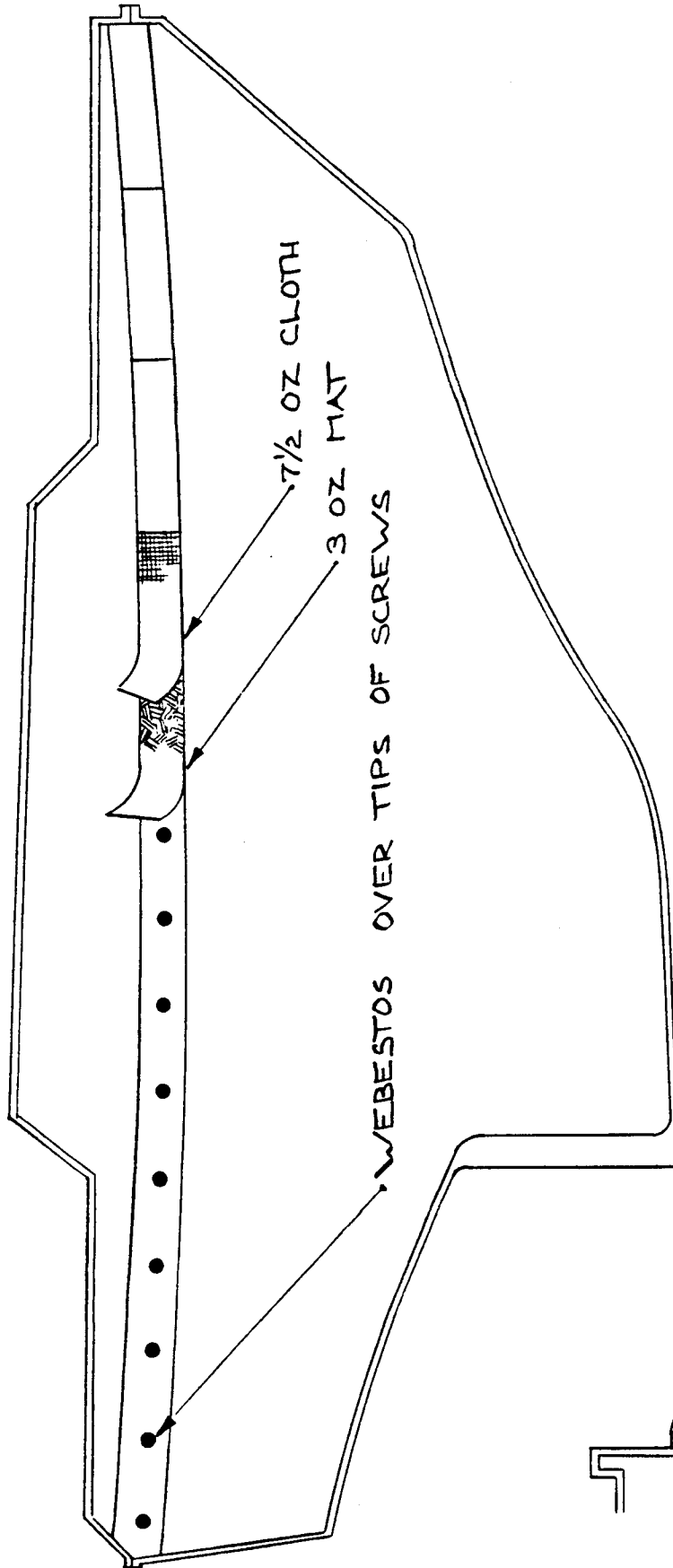
E29, E- 2.7 JOINING
RUB-RAIL INSTALLATION.



TO INSTALL RUB-RAIL USE
A HAMMER AND A WEDGE.
USE WEDGE TO INSERT RAIL
AS SHOWN ABOVE.

4/1/70

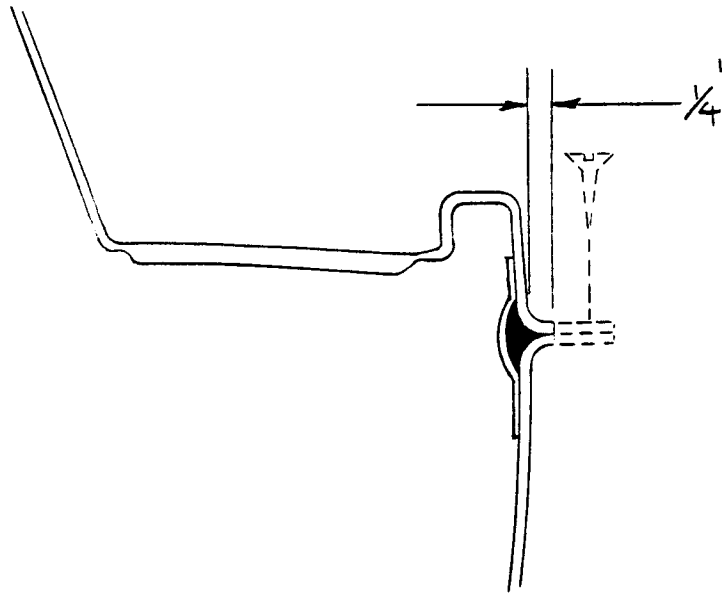
7/11/74



AFTER SCREW TIPS HAVE BEEN
FAIRED IN LAY IN 2ND BOND.

NOTE:

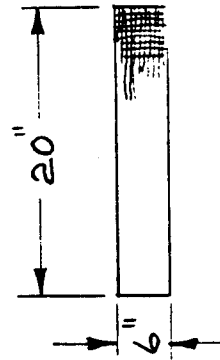
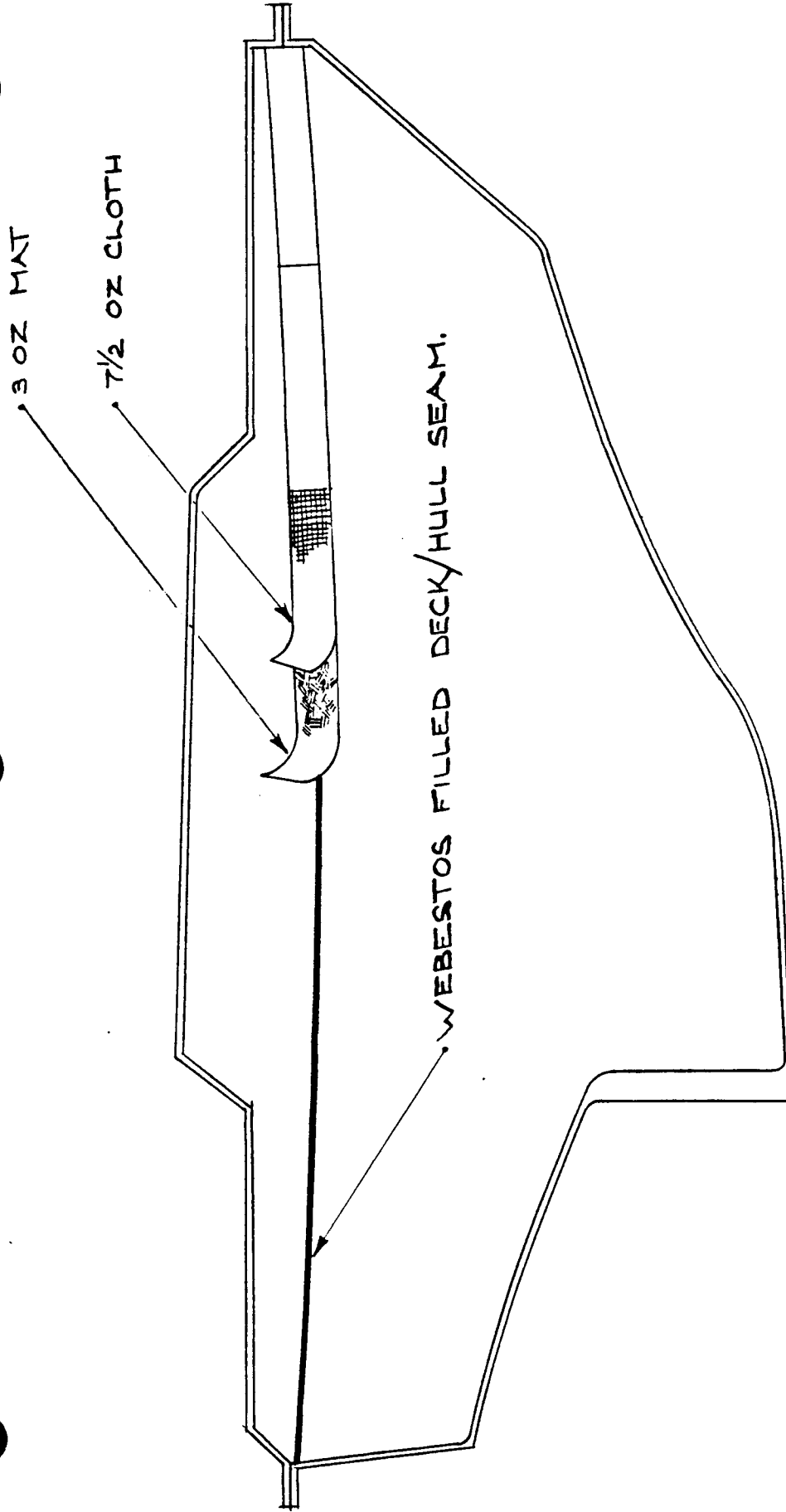
THE TIPS OF THE
SCREWS THAT SECURE
THE TRIM RAIL COME
THRU THE FIRST BOND.
THESE NEED TO BE
FAIRED IN WITH
WEBESTOS.



AFTER FIRST BOND HAS CURED
REMOVE FLAT HD. SCREWS FROM
FLANGE. AFTER ALL SCREWS ARE
OUT OF THE FLANGE USE AN
8" "SKILL" SAW TO CUT THE
FLANGE OFF LEAVEING $\frac{1}{4}$ ".

6/27/74

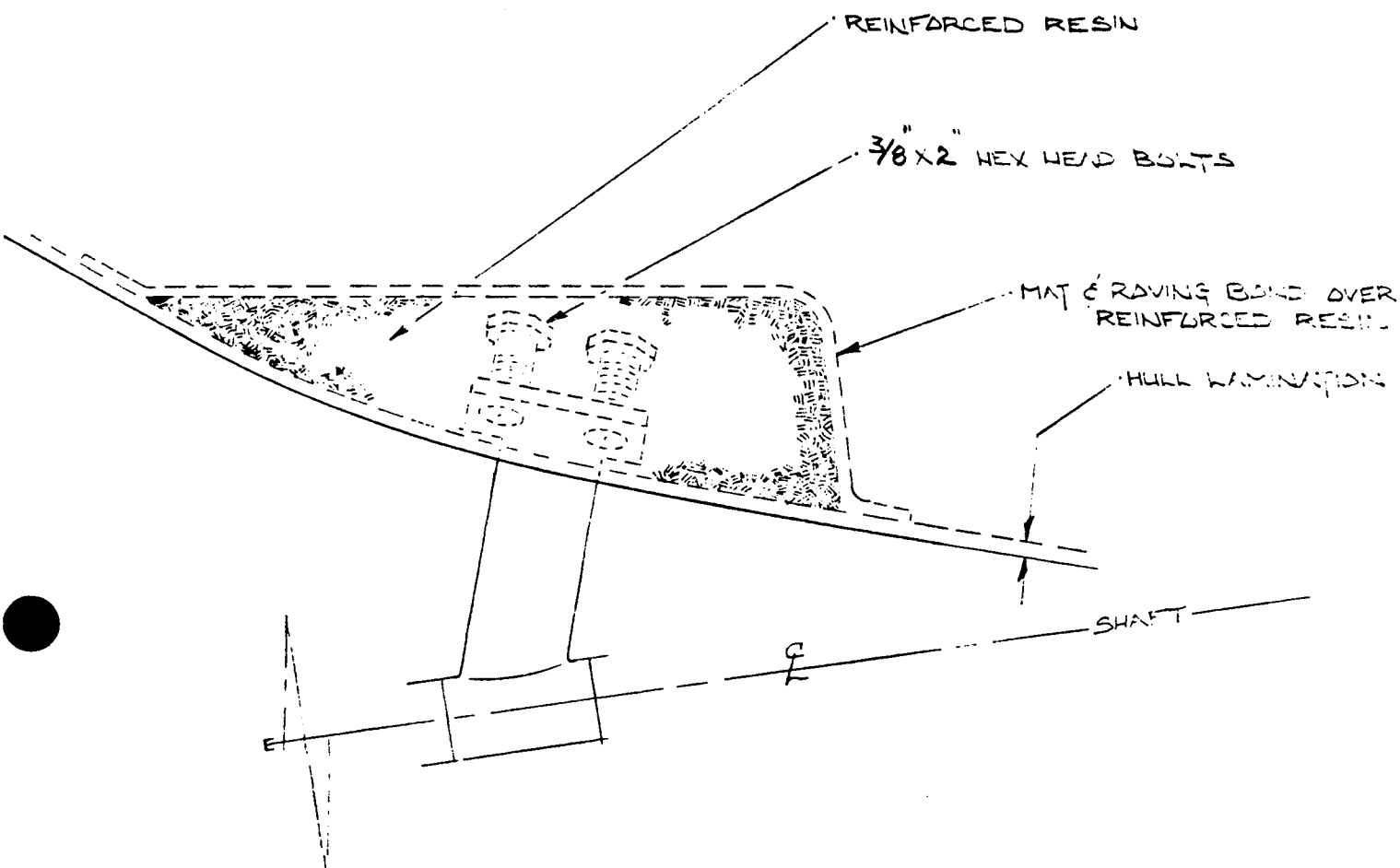
6/17/74
WB



AFTER DECK/HULL SEAM HAS
BEEN FILLED WITH WEBESTOS,
BOND DECK TO HULL WITH
3 OZ MAT & 7 1/2 OZ CLOTH STRIPS
ALONG ENTIRE SEAM.

NOTE:
BOTH MAT & CLOTH BONDS
ARE CUT FROM 6" WIDE
ROLLS INTO 20" LONG STRIPS.

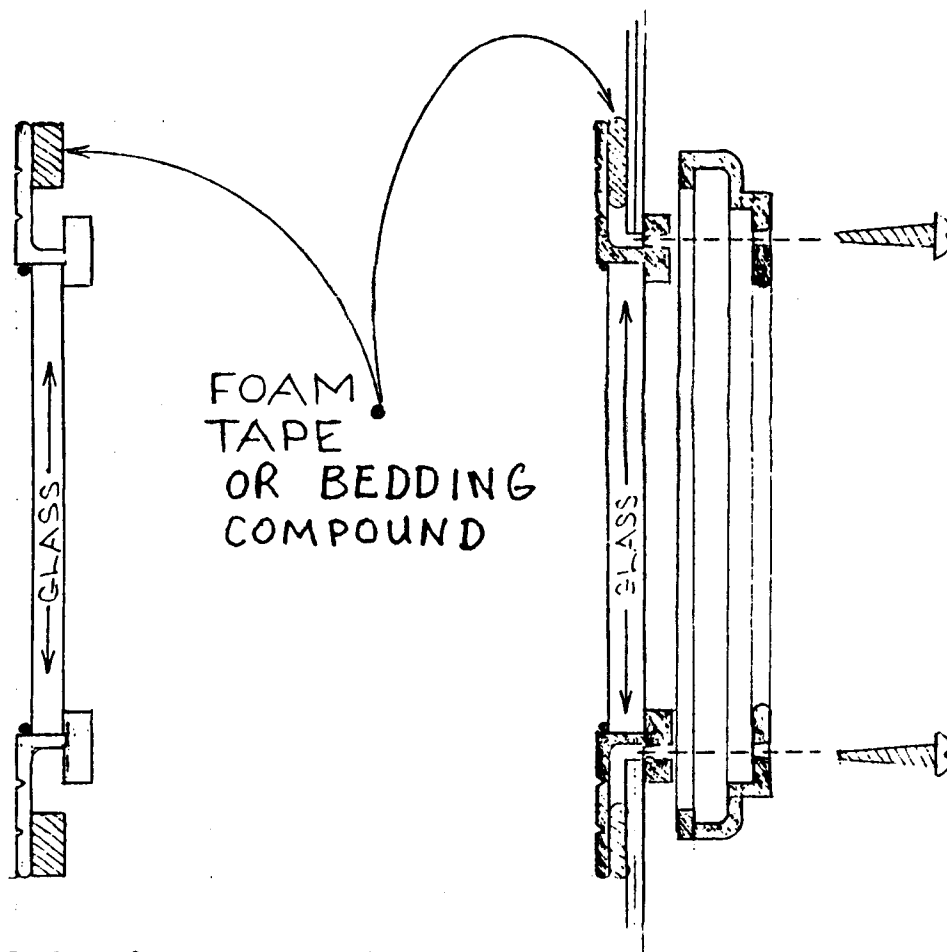
TYPICAL STRUT INST., 27 THRU 36



NOTES:

- ① LOCATE STRUT & ALIGN W/ SHAFT,
SECURE IN PLACE W/ TAPE.
- ② CAREFULLY POUR REINFORCED RESIN
OVER STRUT, DO NOT MOVE STRUT.
- ③ BOND OVER TOP OF ALL W/
(2) 3-OZ MAT & (2) 16-OZ ROVING.

E-29/E-27/E-25, STANDARD WINDOW INSTALLATION



CROSS SECTION, WINDOW

CROSS SECTION, WINDOW IN PLACE

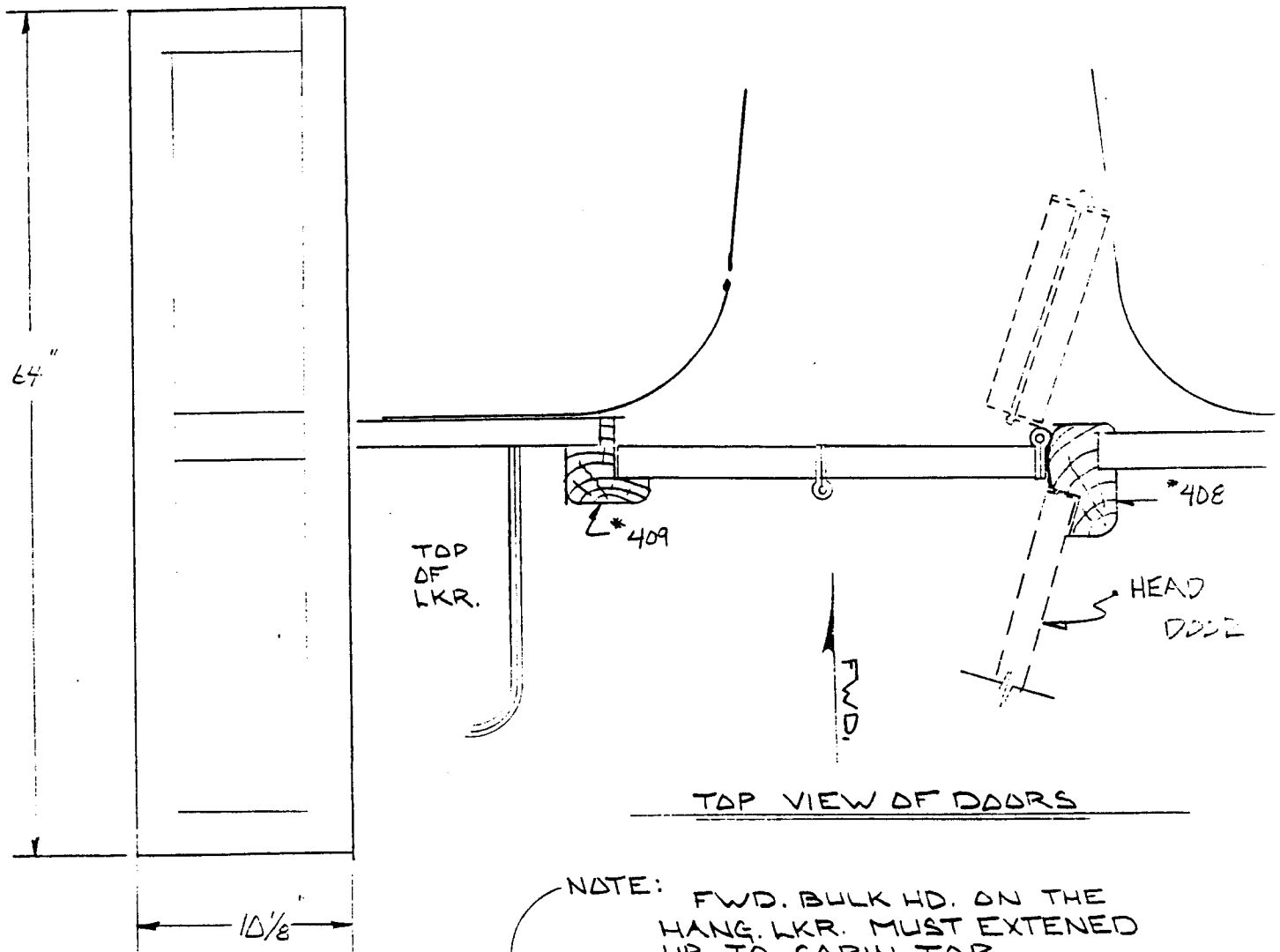
MATERIAL

4-WINDOWS
 *8x5/8" AS NEEDED
 1/2" FOAM TAPE
 E-27: SAME AS ABOVE
 EXCEPT ADD,
 2 SMALL WINDOWS
 E-29: ADD 4 SMALL
 WINDOWS

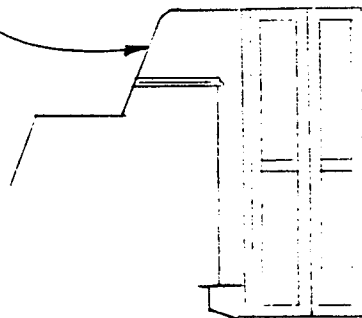
TOOLS

PHILIPS DRIVE TIP
 IMPACT GUN

E-29 FWD. COMPARTMENT DOOR



2 DOORS PER BOAT



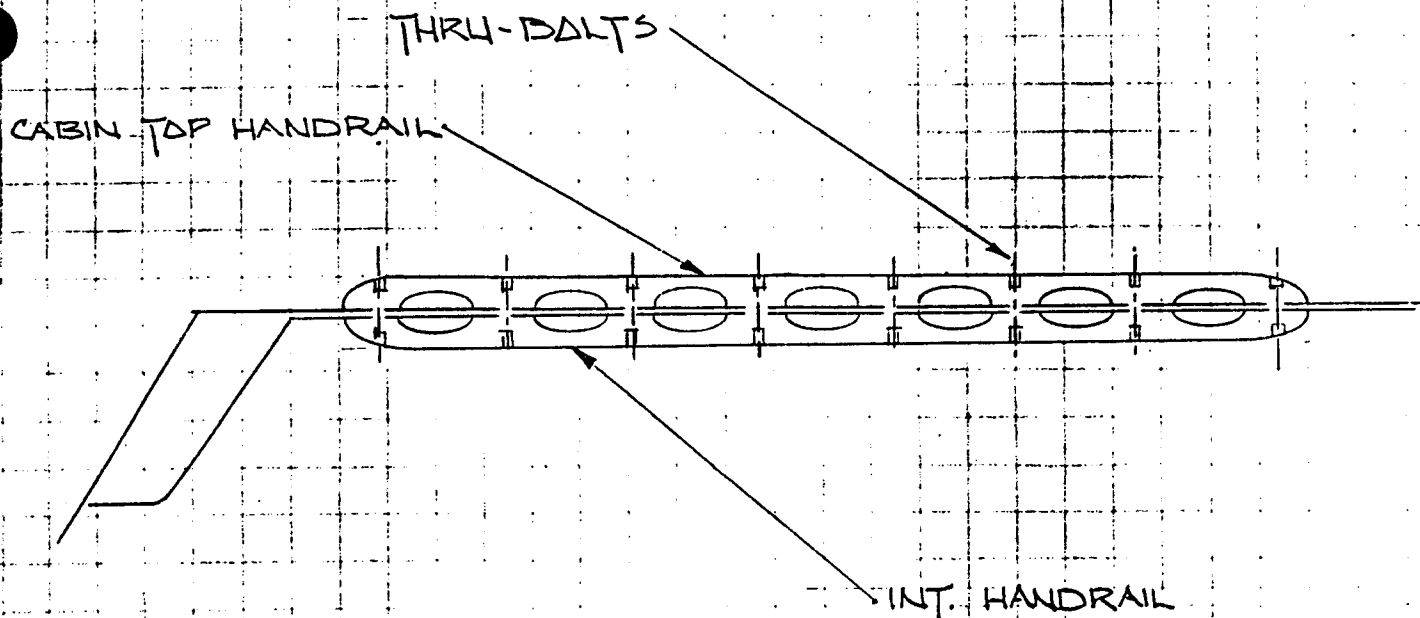
LOOKING FWD. AT DOORS

NOT AVAILABLE THRU FACTORY
MUST HAVE CUSTOM MADE.

REVISED: 10-28-76

6/20/75

TYPICAL INT. HANDRAIL INSTALLATION



NOTES:

- ① INT. HANDRAILS & CABIN TOP HANDRAILS ARE TO BE THRU-BOLTED.
- ② COUNTERSINK & PLUG THRU-BOLTS.
- ③ THRU-BOLT W/ $\frac{1}{4}$ " - 20 X 4 $\frac{1}{2}$ " S.S. FLAT HD'S. & STD. NUTS.

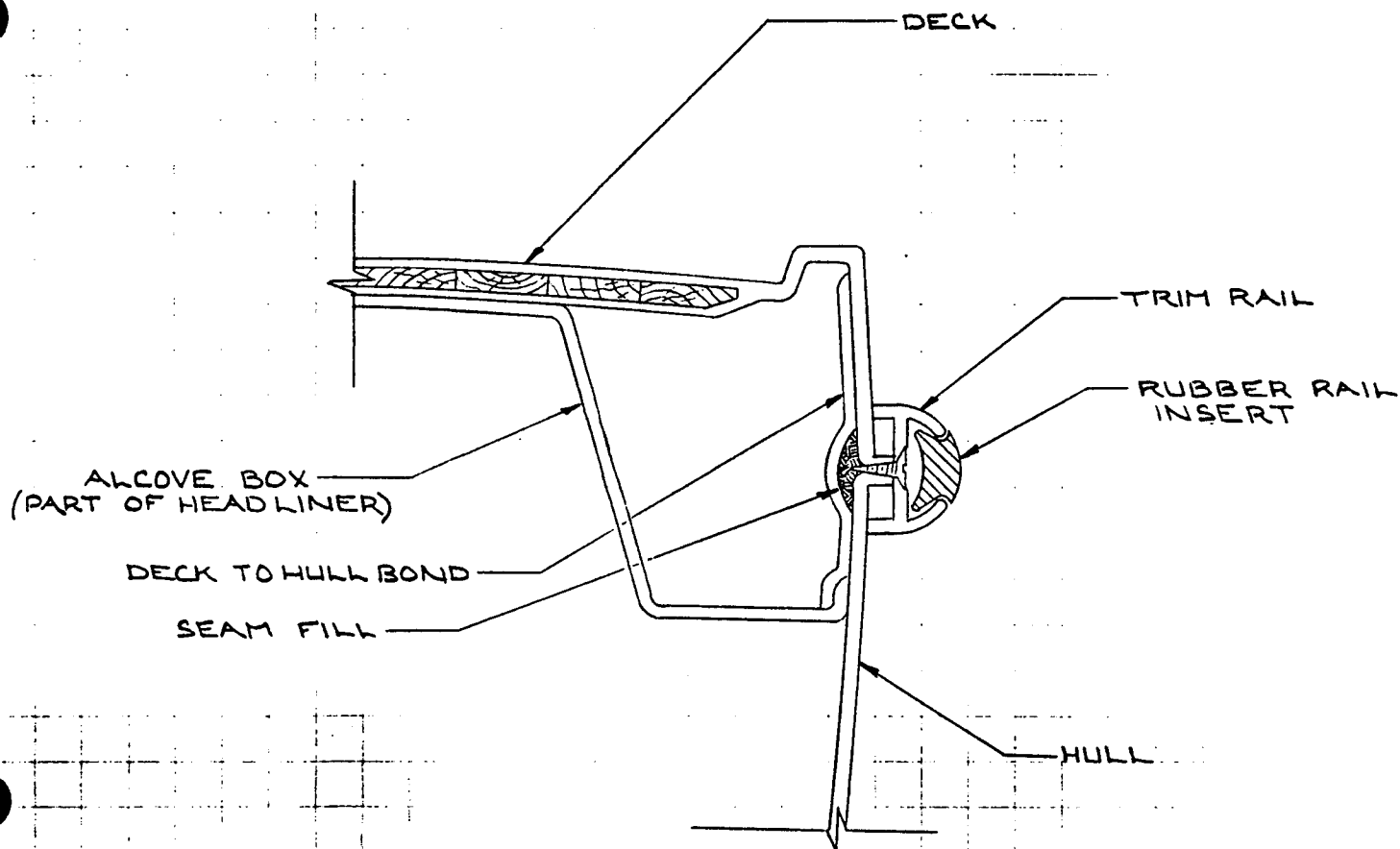


ERICSON YACHTS

1931 Deere Ave., Santa Ana, Calif. 92705

11/12/75

— TYPICAL DECK/HULL SEAM —



CROSS SECTION OF TYPICAL DECK/HULL SEAM

NOTES:

DECK TO HULL BOND COMPOSITION —

1, 3 OZ MAT

1, 7½ OZ CLOTH

1, 3 OZ MAT

1, 7½ OZ CLOTH

THE DECK/HULL SEAM FILL MATERIAL
IS A REINFORCED POLYESTER RESIN.

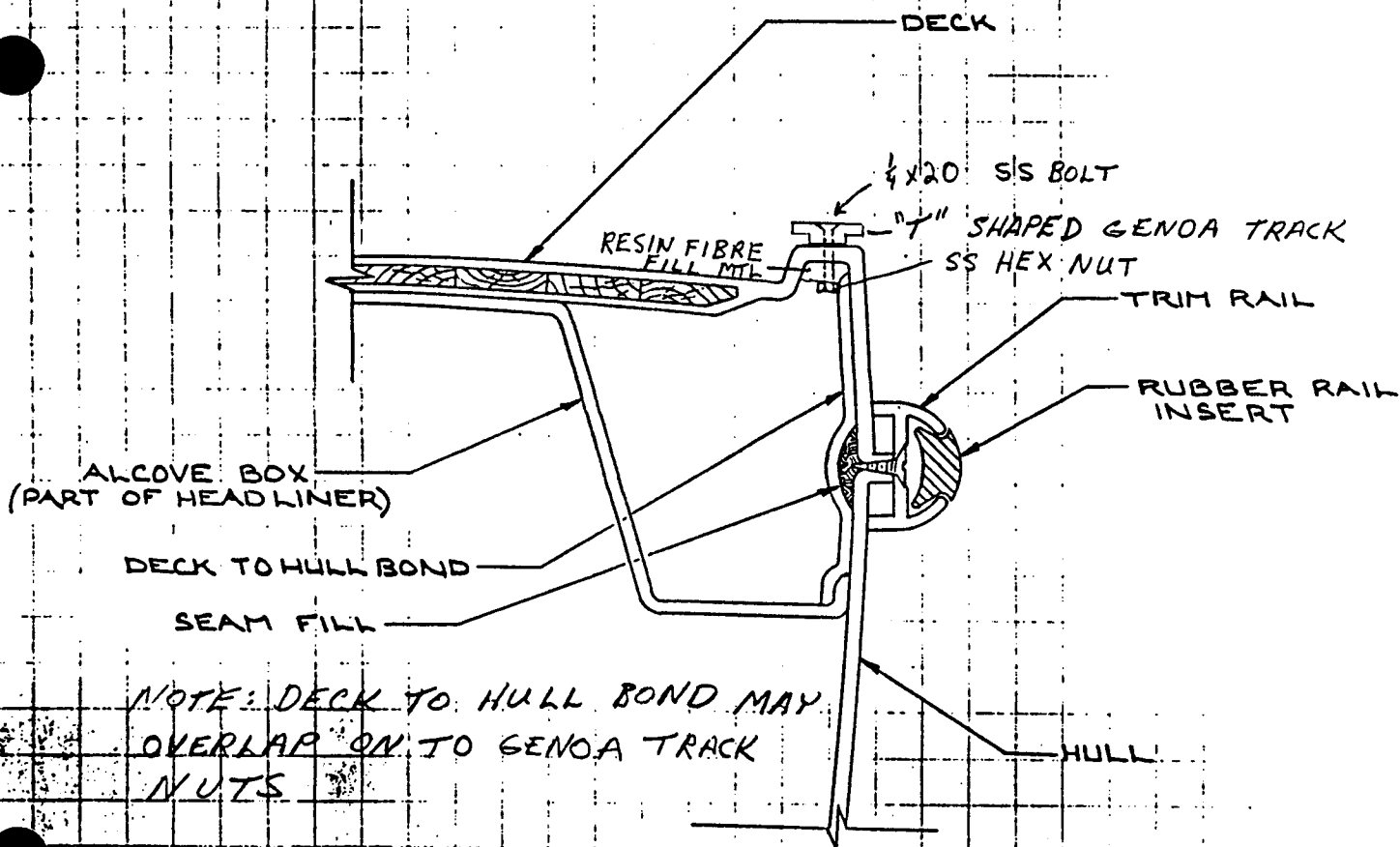


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-12/9/74-

WITH GENOA TRACK DETAIL



CROSS SECTION OF TYPICAL DECK/HULL SEAM

NOTES:

DECK TO HULL BOND COMPOSITION —

1, 3 OZ MAT

1, 7 1/2 OZ CLOTH

1, 3 OZ MAT

1, 7 1/2 OZ CLOTH

THE DECK/HULL SEAM FILL MATERIAL
IS A REINFORCED POLYESTER RESIN.

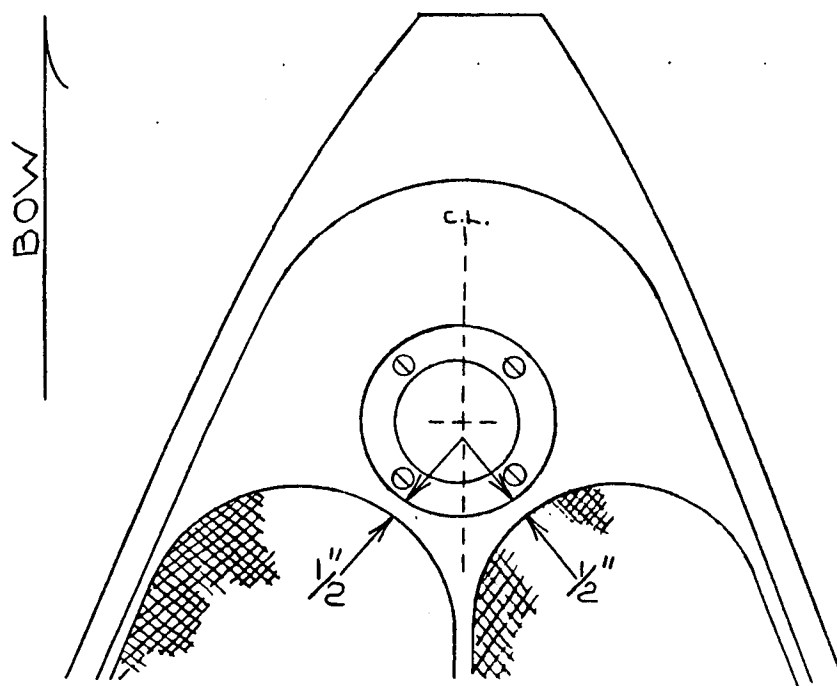


ERICSON YACHTS

1931 Deere Ave., Santa Ana, Calif. 92706

-12/9/74-

E-29/E-27/E-25 OPTIONAL COWL VENT



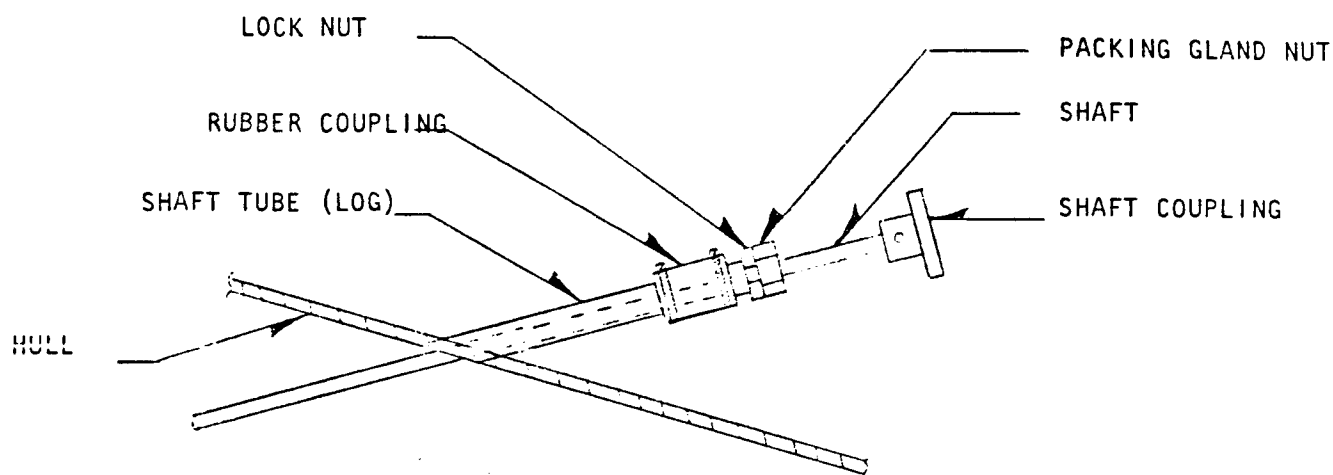
MATERIAL

COWL VENT PLATE
 4- $\frac{1}{4}$ " \times 20 \times 2" F.H.B.
 4- $\frac{1}{4}$ " FLAT WASHER
 4- $\frac{1}{4}$ " LOCK WASHER
 4- $\frac{1}{4}$ " STANDARD NUTS
 DOLPHINITE

TOOLS

AIR DRILL
 SABER SAW
 $\frac{1}{4}$ " DRILL BIT
 SCREWDRIVER
 $\frac{7}{16}$ " WRENCH

PROPELLER SHAFT PACKING GLAND
ADJUSTMENT INSTRUCTIONS



- A) The packing gland or "stuffing box" is mounted on rubber coupling which is clamped to the shaft tube in the hull where the shaft passes through the hull aft of the engine. A locknut against the gland nut holds it to the desired adjustment. The packing gland functions to seal out most of the water from entering the hull where the shaft passes through to the outside while, at the same time, allowing just enough water between the shaft and the packing gland to lubricate and keep the shaft from heating up from the friction of the seal. Worn packing or a poorly adjusted packing gland nut will allow too much water to enter and cause a nuisance, or worse, cause the boat to sink when left unattended. Too little water entering will cause reduced engine efficiency and premature shaft and packing wear. Excessive shaft and packing wear would result in the introduction of too much water causing the above nuisance and possibly even endangering your boat.
- B) Adjustment Procedure; Ideally, the propeller shaft packing gland should be adjusted so that, with the engine running slowly in gear (shaft turning), 5 or 6 drops per minute should enter from between the shaft and the packing nut. With the shaft stationary, no water should enter. However, it is not always possible to achieve a complete water stoppage with the shaft stopped. Occasional dripping is acceptable.
1. Stop the engine.
 2. Loosen the locknut using two pair of large channel lock pliers. Try not to squeeze too hard, as it is a rather thin nut and excessive pressure may distort it.
 3. Tighten the packing nut by turning it 1/2 turn clockwise (if viewed from its forward end facing aft). Note that the packing nut does not have to feel tight to be properly adjusted.
 4. While holding the packing nut in position, tighten-up on the locknut until it is snug against the packing nut.
 5. Restart the engine. Place it in gear and recheck the shaft. If it is still allowing too much water in, stop the engine and readjust as necessary.

If all the adjustment is taken out of the packing nut and the shaft is still leaking excessively, especially when the shaft is not turning; the packing will need to be replaced.



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(7/82)

B) To Replace the Packing; Have on hand about 10 - 12 inches of waxed-flax packing.

Sizes: 3/4" Shaft use 1/8" packing

1. Loosen the locknut as described in step 2, page 1.
2. Loosen the packing nut, so that it comes all the way off the bronze-threaded nipple. This should expose the packing around the shaft. If you are performing this operation in the water, a steady stream of water will now be running into the boat. There is no need to be concerned, as the entire changing process does not take long enough to allow a significant amount of water to enter.
3. Carefully remove all of the old packing, but do not discard it yet. Keep it available in case there is some unforeseeable problem with the new packing material.

Note that the packing is installed in a series of three rings butting rather than in a spiral.
4. Although, in the final installation, the packing is not spiralled around the shaft inside the nut, it is easy to measure and score all the turns simultaneously by spiralling three turns and then dragging a knife blade across them. Unwrap the turns and complete the cuts to form three separate rings.
5. Line the rings on the shaft next to the bronze nipple. Be sure that the length of each is just the circumference of the shaft. If they are too short, they will leak where the ends butt together and, if too long, they will tend to bunch and make it difficult to reinstall and adjust the packing nut.
6. With the packing in place, slide the packing nut back into position, and thread it back onto the bronze nipple.
7. Adjust the packing gland as described previously.

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ENGINE ALIGNMENT INSTRUCTIONS

The engine must be properly and exactly aligned with the propeller shaft. No matter what material is used to build a boat, it will be found to be flexible to some extent and the boat hull will change its shape to a greater extent than is usually realized when it is launched and operated in the water. It is, therefore, very important to check the engine alignment at frequent intervals and to correct any errors when they may appear.

Misalignment between the engine and the propeller shaft is the cause of troubles which are blamed often on other causes. It will create excessive bearing wear, rapid shaft wear, and will--in many cases--reduce the life of the hull. A bent propeller shaft will have exactly the same effect, and it is therefore necessary to be very careful that the propeller shaft itself be perfectly straight. One particularly annoying result of misalignment may be leakage of transmission oil through the rear oil seal. While it is possible for this type of leakage to be caused by defective parts, one should always first check that alignment is within the limits prescribed.

Never attempt a final alignment with the boat on land. The boat should be in the water and as near as possible to its final water form. It is best to do the alignment with the fuel and water tank about half full and all the usual equipment on board. Take plenty of time in making this alignment and do not be satisfied with anything less than perfect results. The alignment is correct when the shaft can be slipped backwards and forward into the counterbore very easily and when a feeler gauge indicates that the flanges come exactly together at all points. The two halves of the propeller coupling must be parallel within .002 inch. If a .003 inch feeler gauge can be inserted, alignment is unsatisfactory. Another way to check the flange alignment is to use slips of paper for indicating shims. Alignment is satisfactory when the same pull is required to remove all pieces of paper when the coupling flanges are brought together.

In making the final check for alignment, the engine half coupling should be held in one position and the alignment with the propeller coupling tested with the propeller coupling in each of four positions, rotated ninety degrees between each position. This last test will also check whether the propeller half coupling is in exact alignment on its shaft. Then, keeping the propeller coupling in one position, the alignment should be checked rotating the engine half coupling to full position each ninety degrees from the next one.

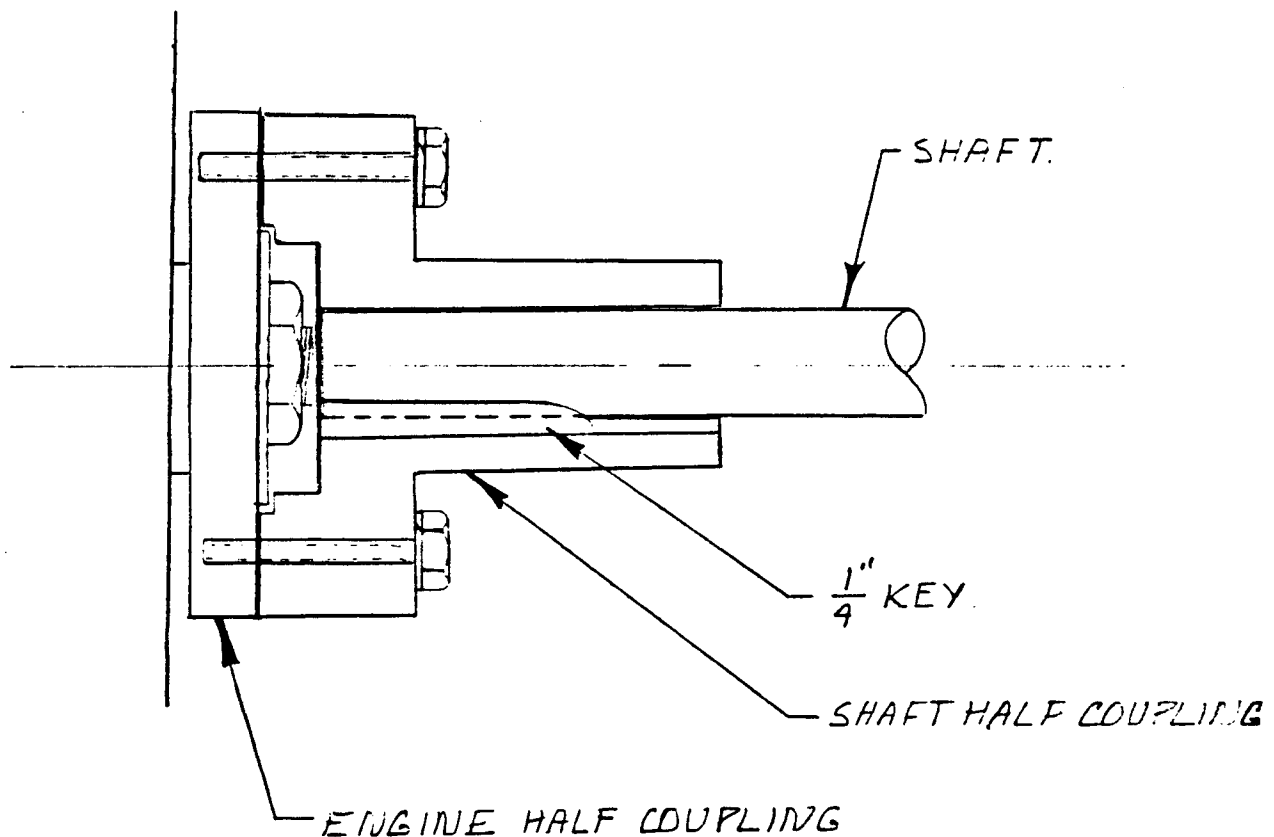
The engine alignment should be re-checked after the boat has been in service for one to three weeks and if necessary, the alignment re-made. It will usually be found that the engine is no longer in alignment. This is not because the work was improperly done at first, but because the boat has taken some time to take its final shape and the engine bed and engine stringers may have absorbed some moisture. It may even be necessary to re-align at a future period.

The coupling should always be disconnected whenever the boat is hauled out again because the flexibility of the boat often puts a very severe strain on the shaft or the coupling or both when it is being moved.



TYPICAL SHAFT COUPLING

PAGE 1 OF 2.



NOTE:

REFER TO PAGE 2 FOR ENGINE ALIGNMENT
INSTRUCTIONS.



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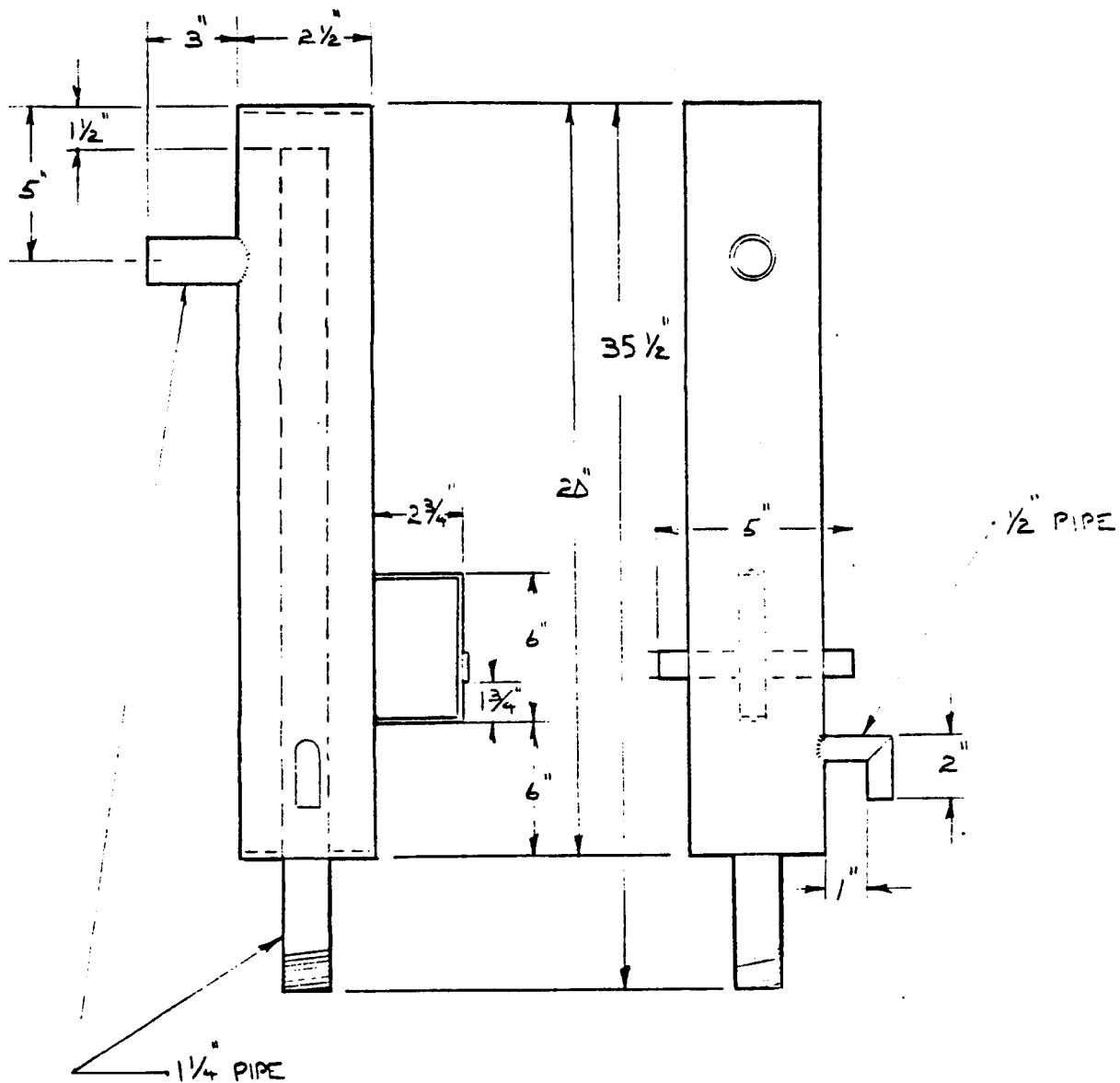
1931 Deere Ave., Santa Ana, Calif. 92705

E-29 HEAT RISER



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15-1 Deane Ave., Santa Ana, Calif. 92705



NOTE:

WATER TEST RISER
BEFORE INSTALLATION.