

Hood YACHT
SYSTEMS

STOWAY
SYSTEM

Hood Yacht Systems

Maritime Drive, Portsmouth, RI. 02871 USA

Tel: (401) 683-2900 Telex: 5106017839 HYS Fax: (401) 683-2410

SPAR & BOOM**Specifications****Spar Section Size****Boom Section Size****Type** Manual Electric Hydraulic**Voltage** 12 Volts 24 Volts**No. of Spreaders** Single Double Other**Boat Model****Hull Number****Customer****Project No.**

Contents

Customer Specifications		3.
Introduction		5.
INSTALLATION		
Arrival of mast		7.
Winches		8.
Mast splice		10.
Luff rod splice	HS 7742–HS 1157 A luff rod	12.
	HS 1267 & above DD luff rod	14.
Spreaders		16.
Standing rigging		18.
Halyard swivel & mainsail		20.
Boom		22.
Electric drive system		24.
Hydraulic drive system		27.
OPERATION		
Manual Stoway		28.
Electric/Hydraulic Stoway		29.
Flute stopper		30.
Maintenance & storage		31.
Trouble shooting	Sail	32.
	Electric/Hydraulic drive	33.
TECHNICAL		
Gooseneck	Manual & Electric/Hydraulic	34.
Warranty		35.

Lightning and power line caution

Although many aspects of installing the Stoway mast are similar to any conventional mast, there are certain requirements for this unique mast. Therefore, it is advisable that the Stoway mast be stepped and rigged by an experienced rigger.

Aluminium spars and stainless steel rigging conduct electricity. Mast contact with overhead power lines or a lightning strike can cause personal injury and property damage through the conduction of electricity down the spar and rigging .

Please note

When calling Hood Yacht Systems Service Department, it is important that you have your mast's project number. This number can be found stamped on the inboard end of the boom, repeated on the masthead near the backstay toggle, also on page 3 of this manual.

Hood Yacht Systems commitment to improving sailhandling systems will continue. Because of our continual research & development specifications are subject to change without notice.

All products manufactured by Hood Yacht Systems are guaranteed as detailed in our limited warranty. Contact our service department for further information

HOOD YACHT SYSTEMS
SERVICE DEPARTMENT
MARITIME DRIVE
PORTSMOUTH R.I. 02871
U.S.A.

Telephone: 401-683-2900
Telex: 5106017839 HYS
Fax: 401-683-2410

ARRIVAL OF MAST

Installation**Arrival**

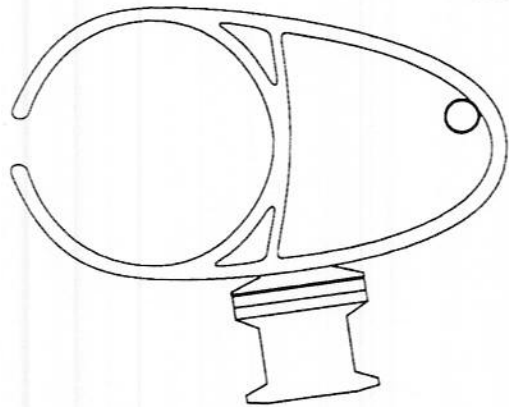
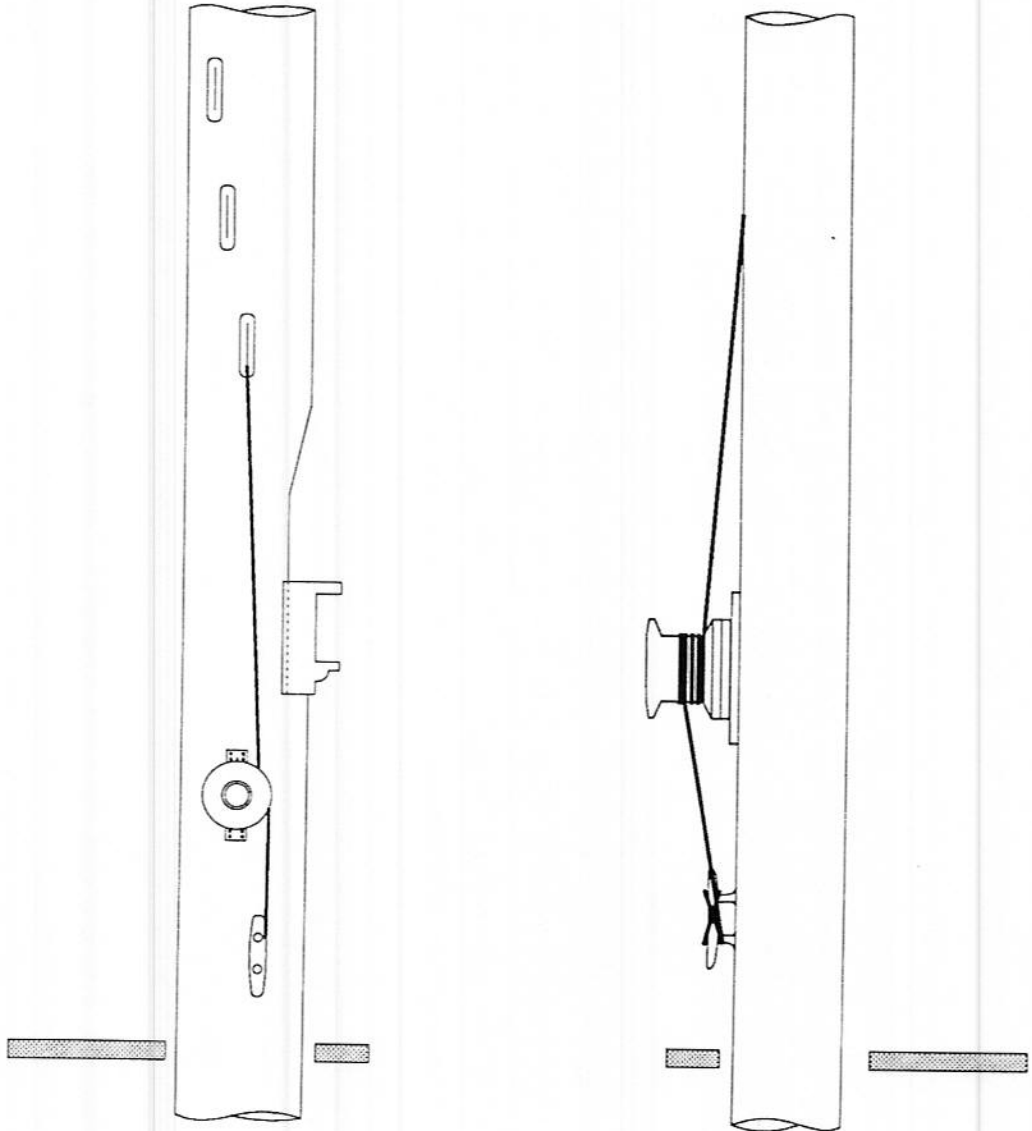
- A. Inspect your mast completely for damage before releasing the deliverer. If any damages are found, file a claim with the transportation company and send photographs and a description of the damage to Hood Yacht Systems. Both of these procedures must be followed for your warranty claim.
- B. Check received items against the packing slip or sales order to determine if the shipment is complete.

Cleaning

- A. Wash out the sail cavity thoroughly with soap or detergent and water. One recommended method is to swab out the cavity with a wad of rags attached to a short piece of line. This will prevent contaminants from soiling the sail. Be sure not to accidentally remove halyard messengers during this cleaning operation.
- B. Wash the outside of the mast as well as the boom and spreaders. While these external washings are not as critical as washing out the sail cavity, they are recommended.

Installing extra electrical gear

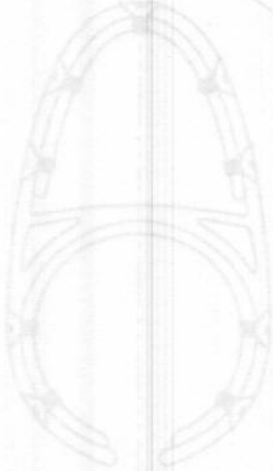
- A. Should you need to install additional electrical wiring, a messenger is located inside the conduit that runs the length of the mast. Attach any new wires to the messenger in the conduit and pull a replacement messenger along with the new wires through the mast so that there will be a new messenger available for future use.
- B. Drill appropriate holes in the masthead and install lights and instruments. Be sure wiring does not interfere with halyards or sheaves. Do not use the mast as an electrical ground.
- C. This is the time to install all winches, cleats, and any additional hardware not installed by Hood Yacht Systems. Be careful of the wiring conduit inside the mast when doing these installations.



WINCHES

Installation

To fit winch pads to spar

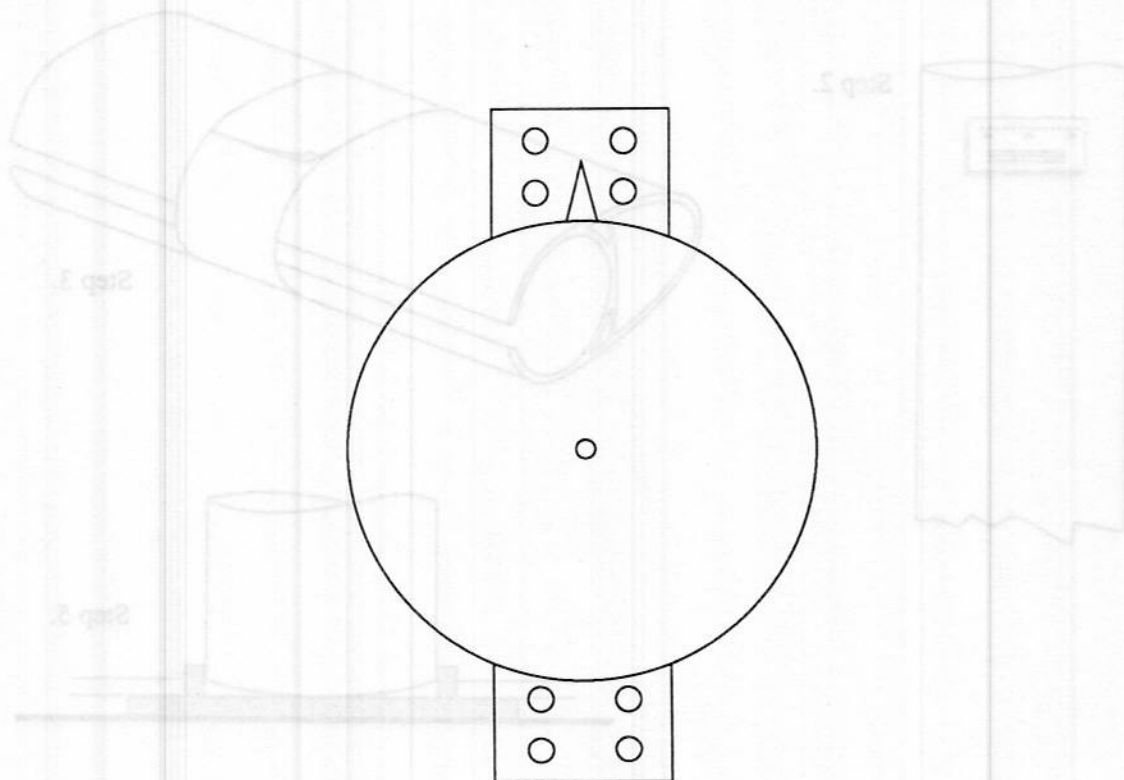


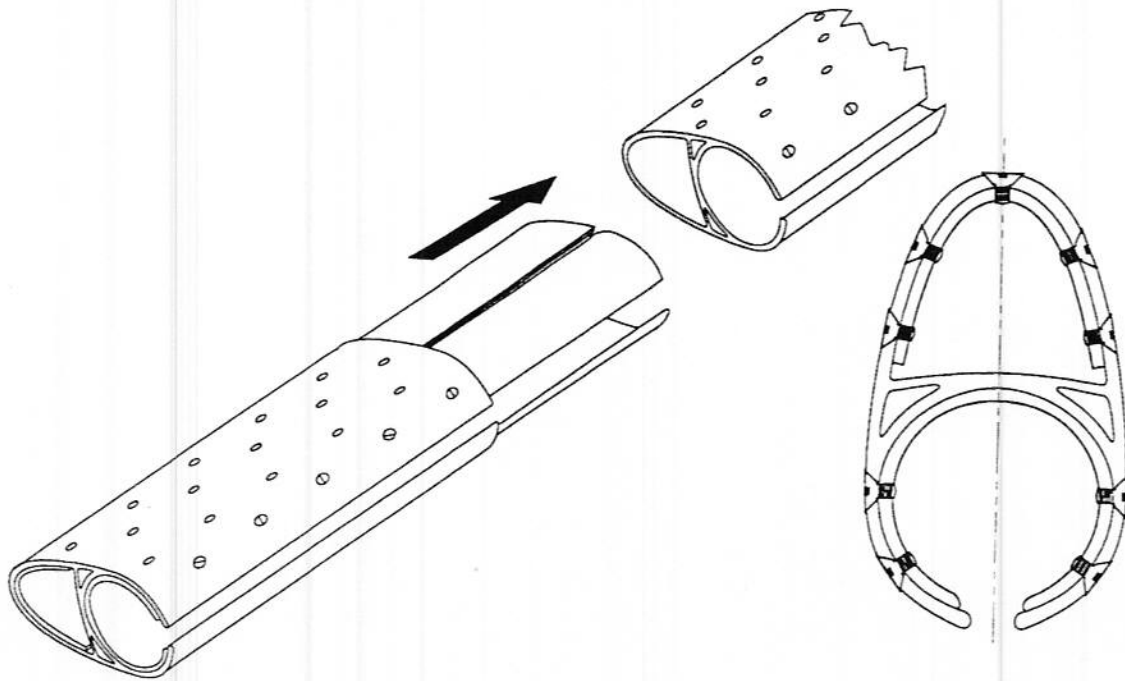
Locate Hood winch pad so as to allow proper halyard lead from exit to winch drum. A fairlead may be required to route halyards. Allow clearance for winch handle and cleats above deck. Note that "direction of pull" arrow must point towards exit. Be careful not to interfere with wiring conduit located in nose of spar. To mount winch pads refer to chart below for correct screw sizes and quantity. Securely fasten winch pad to spar using silicone or equivalent bedding compound, on all screws.

Winch base	Round head screw size	No. Req'd	Tap size	Pilot drill diameter
4 ⁷ / ₈	1 ¹ / ₄ - 20 - 3 ³ / ₄	6	1 ¹ / ₄ - 20	.201
5 ¹ / ₄	5 ⁵ / ₁₆ - 18 - 3 ³ / ₄	6	5 ⁵ / ₁₆ - 18	.257
7	5 ⁵ / ₁₆ - 18 - 3 ³ / ₄	10	5 ⁵ / ₁₆ - 18	.257
8 ¹ / ₂	5 ⁵ / ₁₆ - 18 - 3 ³ / ₄	10	5 ⁵ / ₁₆ - 18	.257

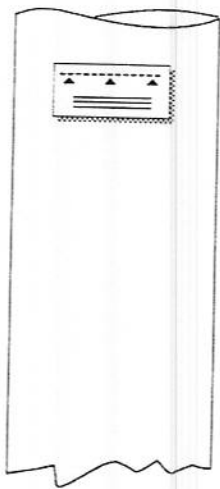
To fit winch base to winch pad

Follow winch manufacturer's mounting recommendations for alignment and fastener size.

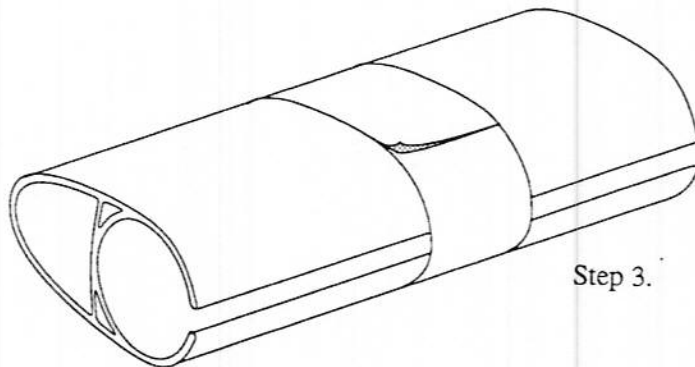




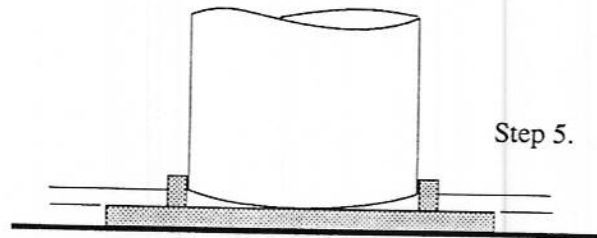
FIELD SPLICE ASSEMBLY



Step 2.



Step 3.



Step 5.

MAST SPLICE

Installation**Field splice assembly**

- A. The mast should be put on horses as straight as possible (with protection for the paint)
- B. Connect all messengers, both halyard and electrical (all messengers are labeled)
- C. All splice screws are on the splice piece. When removing them, identify each location (length of screws differ depending on location). If these instructions are disregarded, damage might result to the mainsail when furling.
- D. Splice sections together (a come along might be required to tie the butt splice together).
- E. Fastening the splice: Screw fasteners starting from the forward side of the mast and going around simultaneously on both sides. Fasteners should be put in with "Loctite." **Caution:** Use of air screw driver can cause screws to strip. Tighten each line of screws before starting to screw other fasteners.

Over-all length of mast*Deck stepped masts:*

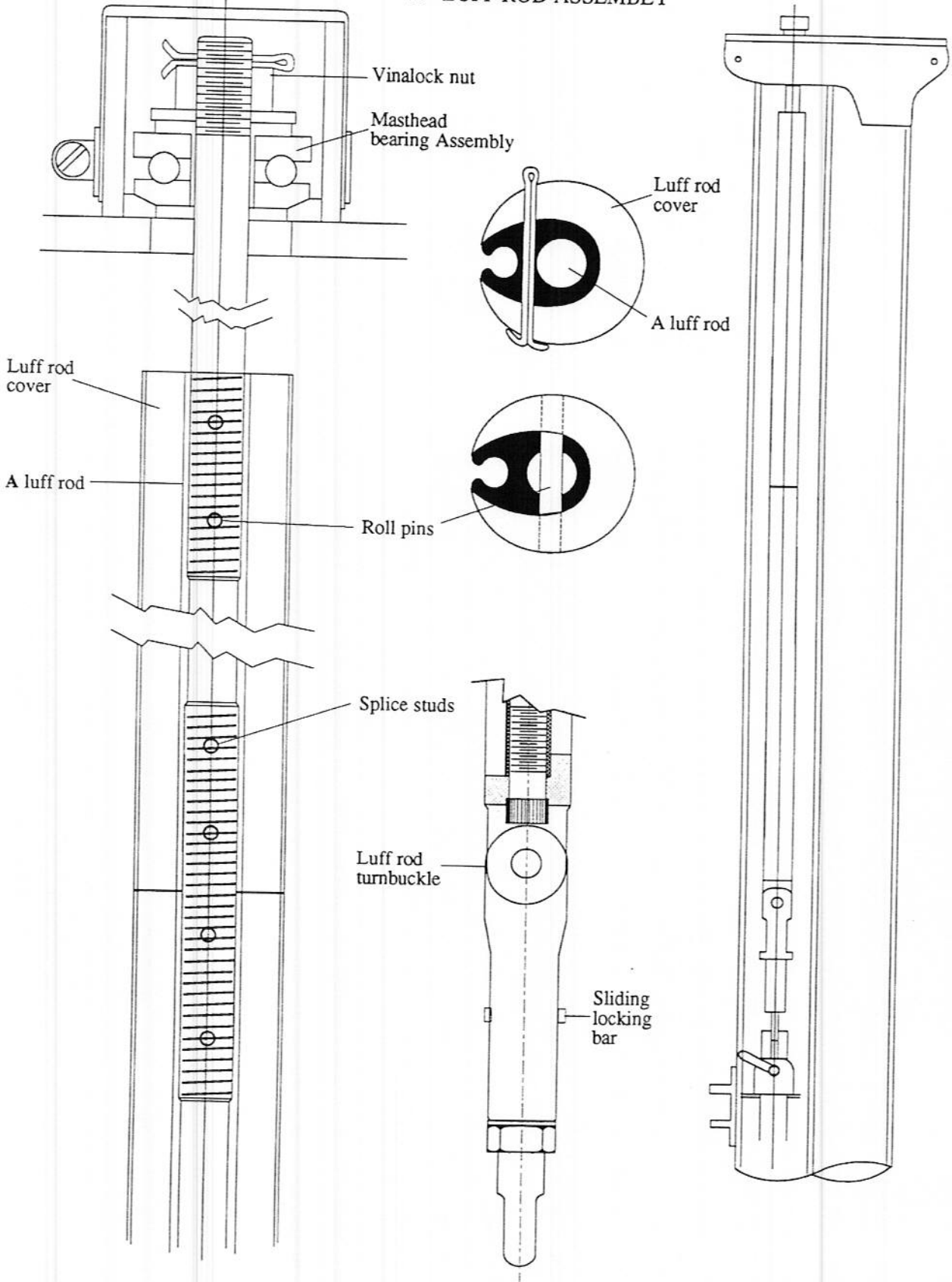
The mast is delivered with a finish cut as shown in the drawing and is ready to step.

Keel stepped masts:

Because bury, (the distance from the top of the deck or cabin top to the top of the mast step) often varies from the designer's drawing, we have shipped your mast with approximately 6" extra length. This means you will have to measure the actual bury in your boat and cut the mast accordingly.

- Step 1. Measure the distance from the top of the deck to the top of the mast step in your boat.
- Step 2. On the side of your mast you will find a deck sticker which locates the deck line. Measure your bury from the broken red line on the sticker and mark the mast.
Before cutting your mast, check that the required boom height above deck measurement corresponds with the distance between the red line sticker (deck line) and the top of the boom.
- Step 3. Tightly wrap a 6" wide strip of heavy paper or light cardboard around mast. This strip must have one very straight side and be long enough to wrap around the mast and overlap itself about 4". Place the straight edge of the strip on your bury mark and line up the overlap. Using the strip as a guide mark the mast all the way around.
- Step 4. Using a saber or skill saw carefully cut the mast at the line you have drawn. Be sure safety glasses and some type of ear protection are worn while cutting the mast.
- Step 5. File or grind the end of the mast to form a "rocker" as shown in the deck step drawing.

"A" LUFF ROD ASSEMBLY



LUFF ROD SPLICE

Installation**HS-7742 thru HS-1157
"A" luff rod**

If you receive your mast in two halves follow instructions below:

- A. Apply red Loctite or epoxy to S.S. splice stud you will find protruding 1.5" from one of the luff rod extrusion halves. Screw into threaded end of the other luff rod half, (CAREFUL! NOT TO CROSS THREAD), until sail groove aligns closest to butting extrusions. Do not be concerned with slight gap between extrusions. Drill thru extrusion and splice stud (1/8" Drill) and pin similar to factory installation.
- B. Slide the plastic luff cover from top (bearing shaft end) down until all covers butt tight. Pin upper most cover to extrusion across bearing center 2" down from top of extrusion with cotter pin provided.
- C. Top bearing parts are provided assembled (W/O grease) under the plastic cap at masthead. Remove cap, remove bearings maintaining parts sequence, set aside. Slide completed luff rod bearing shaft end first through gooseneck cut out up sail cavity. Slip bearing shaft through hole and well in masthead.
- D. Pack mast head bearings (from step C) with Lubraplate, slip over luff rod bearing shaft into masthead bearing well in original sequence. Slide plastic "hat" bushing (flat UP) on to bearings, S.S. washer on to plastic bushing and nut luff rod bearing shaft with Vinalock nut provided; threading just past cotter hole in bearing shaft. Install cotter pin above nut.
- E. Slide on halyard swivel; ref. page 20 for halyard placement. Pull luff rod toward gooseneck. Insure that bearings are properly seated and luff rod rotates freely. Connect turnbuckle to gooseneck toggle. Note: S.S. end of turnbuckle to luff rod jaw, bronze end of turnbuckle to gooseneck toggle.

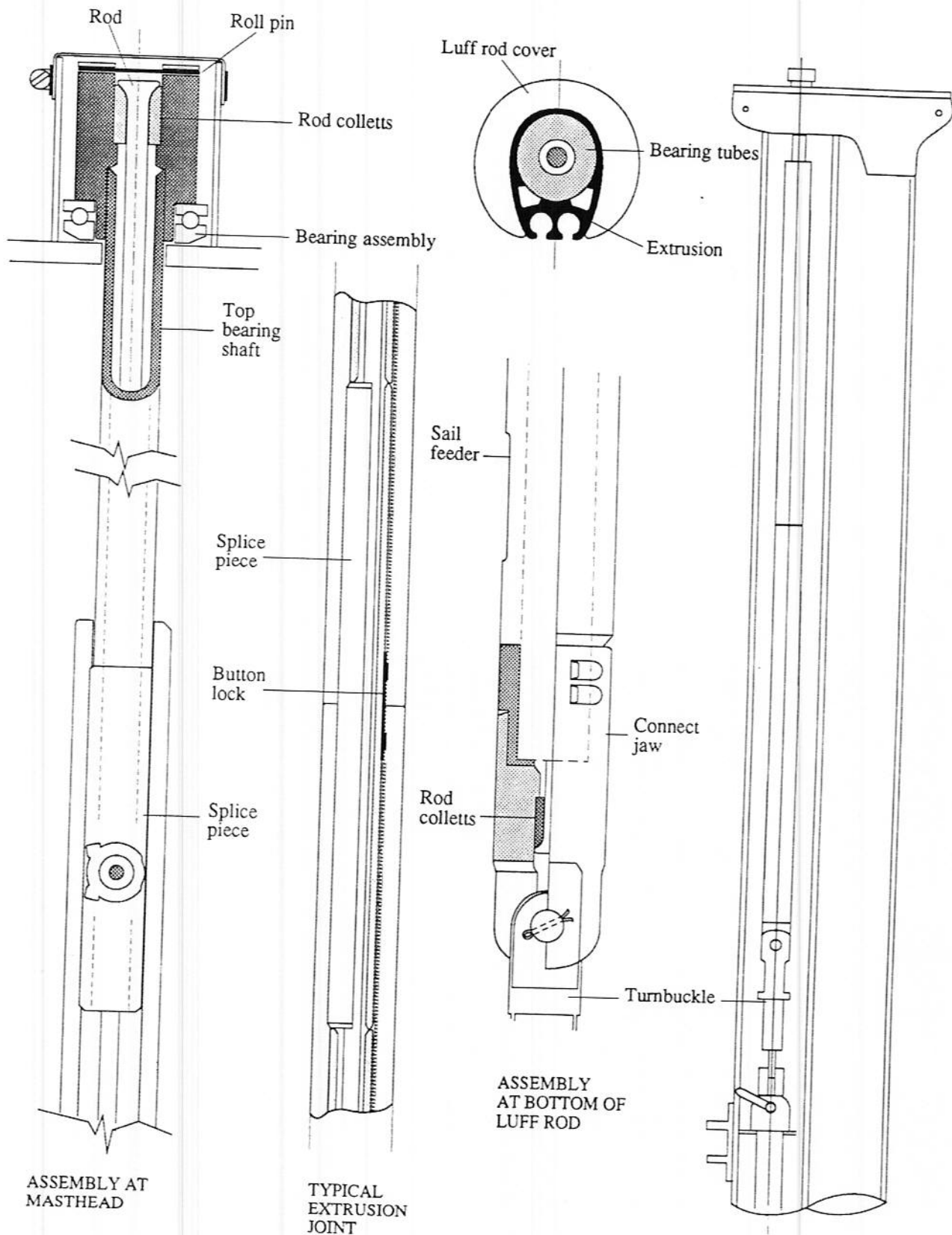
Luff rod assembly

The luff rod is secured at the masthead in a bearing cup. Contained within the cup is a stainless steel bearing assembly that insures free rotation of the luff rod under load. At the lower end, the luff rod is connected to the drive shaft by a turnbuckle. In mast sizes up to and including 1157 the turnbuckle is secured from turning by a locking bar. In mast sizes 1267 and up, the turnbuckle is kept from turning by a square sliding sleeve. Greasing the bearings at the masthead once a year and an occasional visual inspection is the only maintenance required on the luff rod assembly.

Luff rod tension

The mast must be stepped and the rigging tuned before the luff rod can be tensioned. Tension the luff rod by first lifting the locking bar or sleeve on the turnbuckle and then turning the turnbuckle in a clockwise direction until the luff rod is straight. Do not attempt to eliminate luff rod sag as you would in a headstay. Tension is adequate when the luff rod cannot be made to slap against the mast wall. When the luff rod has been properly tensioned slide the locking sleeve over the turnbuckle body or the locking bar into place and tape in position. Chafe tape all sharp or protruding edges.

"DD" LUFF ROD ASSEMBLY



LUFF ROD SPLICE

Installation**HS 1267 Spars & above.
"DD" luff rod.**

If your Stoway spar has been delivered in one piece the complete luff rod assembly will be in place already. Please go on to HALYARD SWIVEL & MAINSAIL.

If your spar is field spliced (2 or more sections) then continue;

Components List.

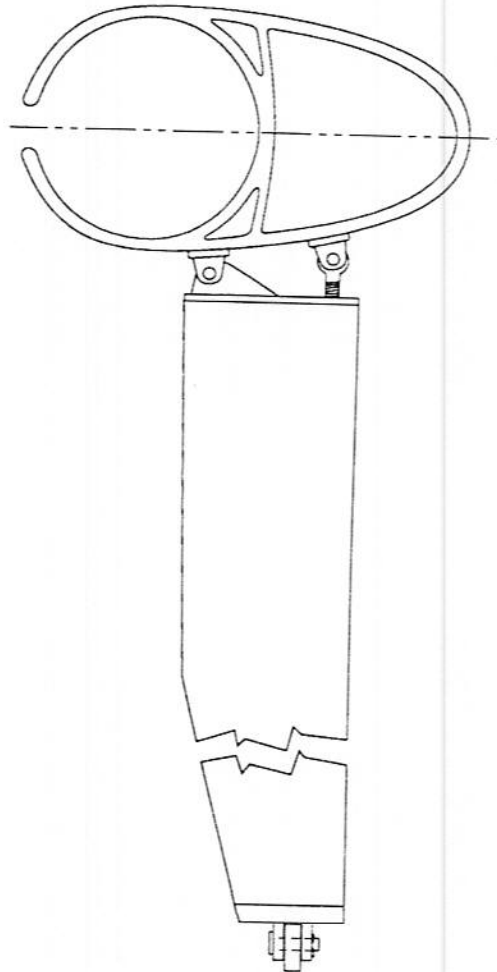
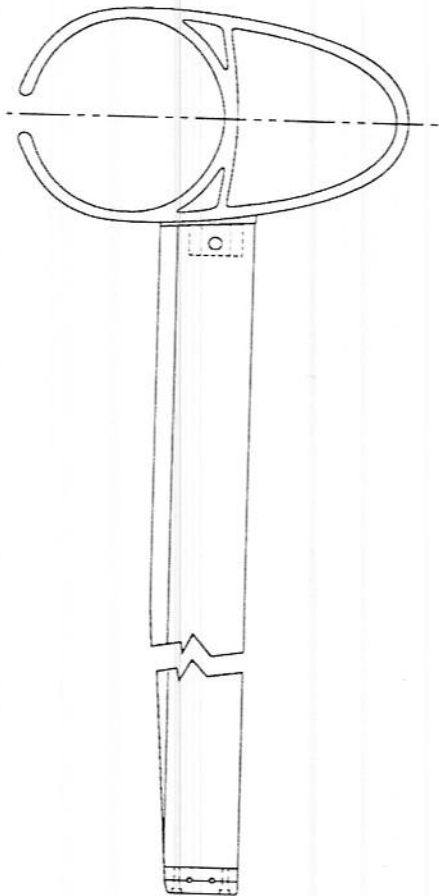
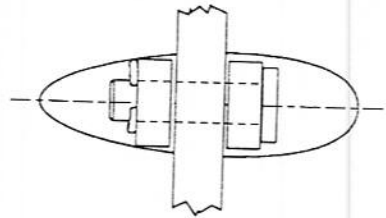
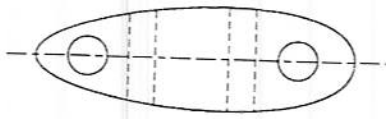
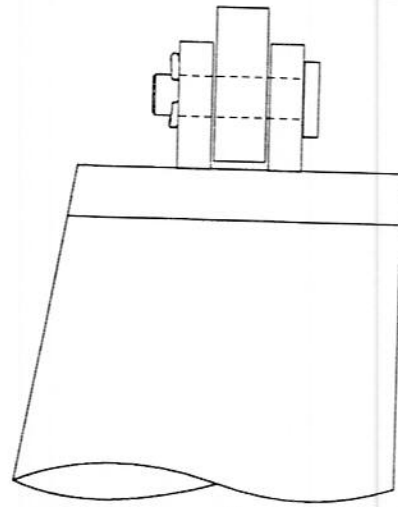
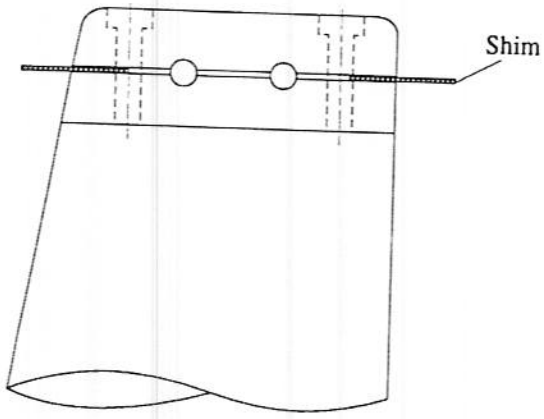
Rod	Luff rod covers	Splice pieces
Top bearing shaft	Button locks	Connect jaw
Bearing tubes	Turnbuckle	Extrusions
Bearing assembly		

All of the components have been preassembled and cut to length prior to shipping. The top extrusion will have the top bearing shaft installed in position. The bottom extrusion will have the connect jaw installed in position.

Connect the extrusions together in the following manner.

1. Coat each splice piece with silicone seal prior to insertion into the extrusion.
2. Insert splice button lock in extrusion and slide splice piece flush with end of extrusion to capture tab.
3. Mate with other extrusion, tab first.
4. Lock together by pushing the bearing tube from the opposite end of the extrusion using the top bearing shaft.
5. Remove top bearing shaft from upper extrusion.
6. Slide upper extrusion luff rod cover off extrusion, apply silicone seal to extrusion and then reseal luff rod cover.
7. With top bearing shaft out, install rod from top to bottom. Locate collets in connect jaws at bottom of luff rod and replace roll pin to hold in place.
8. Remove plastic bearing cap and bearings at masthead.
9. Lightly grease bearings and replace.
10. Remove collets from top bearing shaft.
11. Slide assembled luff rod into spar from bottom up.
12. Install upper collets around rod and into bearing shaft and replace roll pin to hold collets in place.
13. Before connecting assembled luff rod to the turnbuckle slide on the halyard swivel.
14. Connect rod to turnbuckle and hand tighten.
15. Check masthead unit and replace bearing cap.
16. Luff rod assembly is now complete except for final tensioning which is done after mast is stepped.

Note: Coat both sets of collets with anti-seize compound before final assembly.



Spreader tips

For single spreader mast and upper spreaders on double spreader mast:

1. Loosen socket screws and slip 1/16" thick shims under both ends.
2. Drill out appropriate pilot hole to shroud diameter.
3. Loosen socket screws and remove shims.
4. Tips are now ready to accept standing rigging.
5. Clamps should not be tightened at this time.

For lower spreader on double spreader mast:

Check location of upper and intermediate shroud chainplates.

- A. Upper shroud chainplate forward of intermediate shroud chainplate. Tighten socket screws and drill forward pilot hole to upper shroud diameter.
 1. Loosen socket screws and slip shim in tip as shown.
 2. Tighten socket screws.
 3. Drill forward pilot hole to upper shroud diameter.
 4. Drill Aft pilot hole to intermediate shroud diameter.
 5. Tips are now ready to accept standing rigging.
 6. Clamps should not be tightened at this time.
- B. Upper shroud chainplate aft of intermediate shroud chainplate.
 1. Clamps should not be tightened at this time.
 2. Tips are now ready to accept standing rigging.
 3. Drill Aft pilot hole to intermediate shroud diameter.
 4. Drill forward pilot hole to upper shroud diameter.
 5. Tighten socket screws.
 6. Loosen socket screws and slip shim in tip as shown.

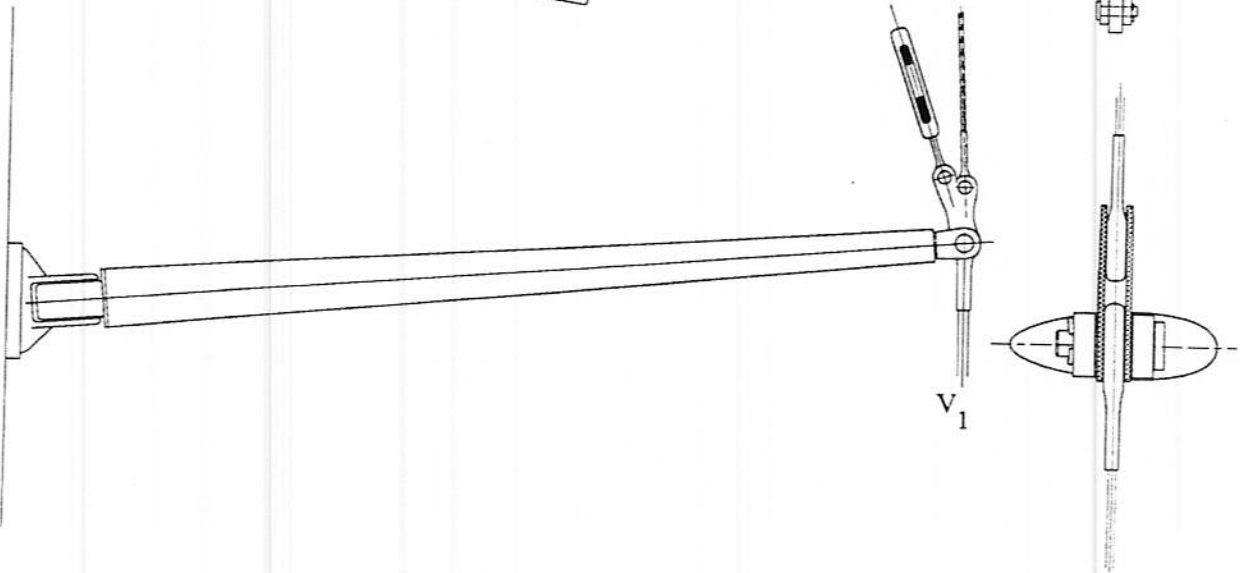
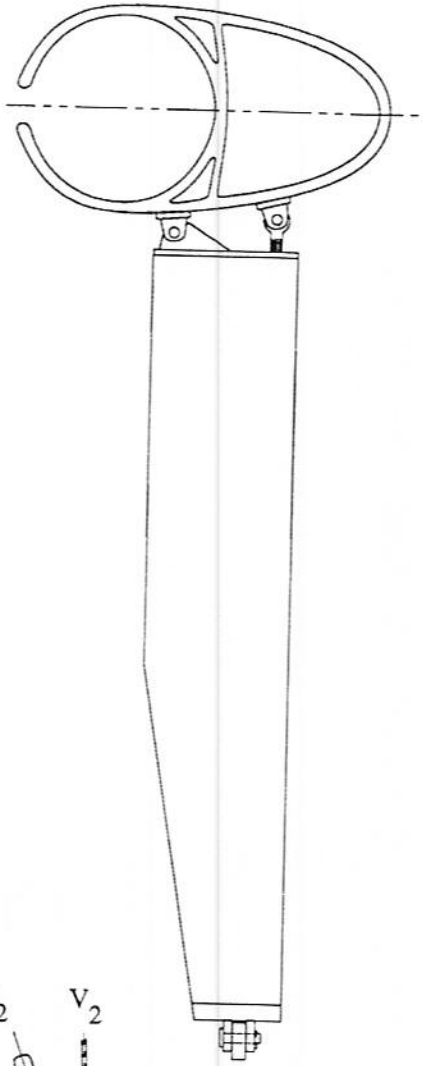
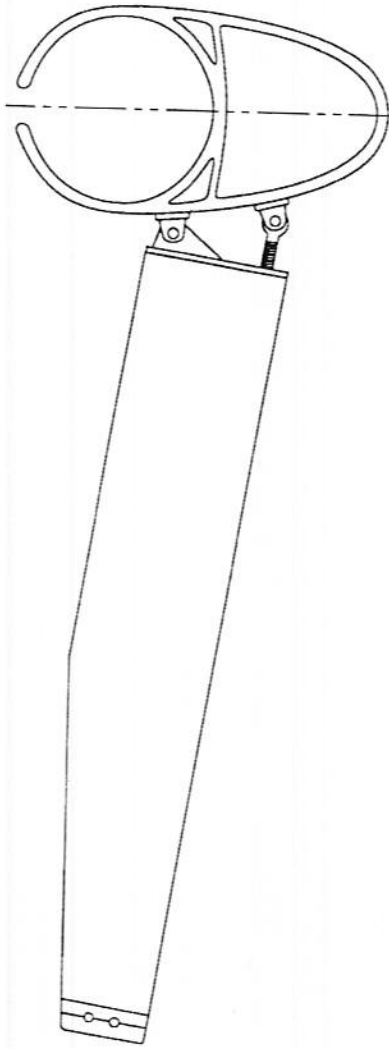
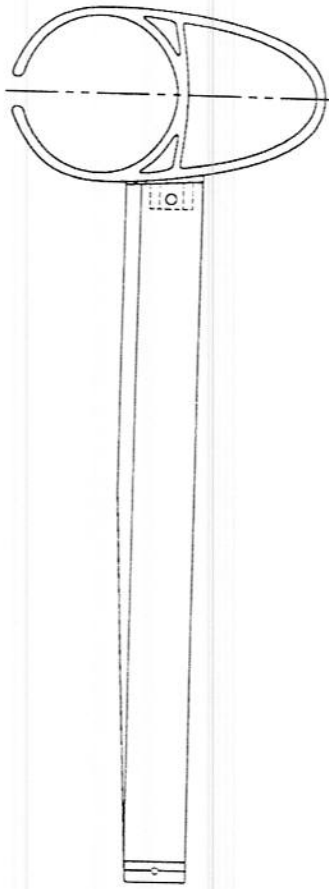
If these instructions are followed closely the spreader tip will clamp the intermediate shroud and allow the upper shroud (which has more stretch) to move in the tip.

Link plates

For discontinuous rigging at lower spreader connect link plates as per drawing on page 18.

Rod rigging instructions

Follow same procedure as for wire rigging, drilling holes to center of spreader bend diameter. If necessary file top of spreader end to accept angle of spreader bend.



Installation of standing rigging

1. Lay out all standing rigging. Check carefully to make sure that no damage has occurred during shipping. Check all pin sizes. Make sure that toggles are attached to the bottom of each turnbuckle. Headstays must have toggles at each end.
2. Attach upper shrouds to upper tangs.
3. Attach spreaders to bases. Spreader carry correct identification for placement (i.e., Port, Starboard). Spreader tips should have already been drilled to accept standing rigging.
4. Attach lower shrouds.
5. Attach main boom topping lift.
6. Attach headstay and backstay. Be absolutely sure that all clevis pins are securely attached by installing cotter pins and securing all installed cotter pins by spreading the pins.
7. Spreader must angle up approximately 5 to 7 degrees. Readjustment of spreader angle may be necessary after the mast is stepped due to stretching of shrouds.

Adjustment of spreader rake

Spreader rake is adjusted when the mast is in the boat and the forestay and backstays and lower shrouds have been tightened. Sight along the upper shroud to see if it forms a straight line from deck to tang. If spreader rake is wrong:

1. Loosen upper shroud.
2. Pull pin from hole in spreader clip.
3. Push spreader back until the screw eye can be screwed in or out.
4. Replace clevis pin and sight along wire.

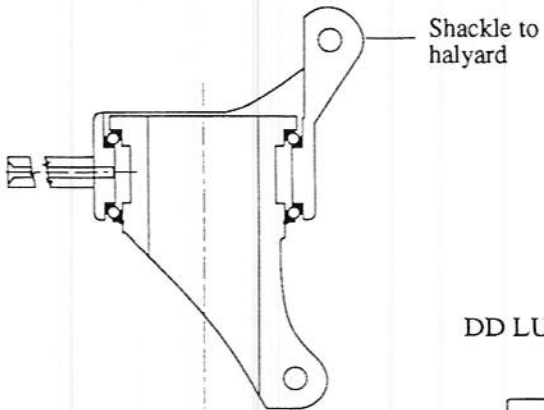
This process may have to be repeated a few times and requires some patience. Secure one person in a bosun's chair at spreader level and another at the turnbuckle to tighten and loosen shrouds.

Tuning of standing rigging

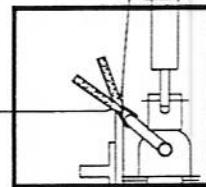
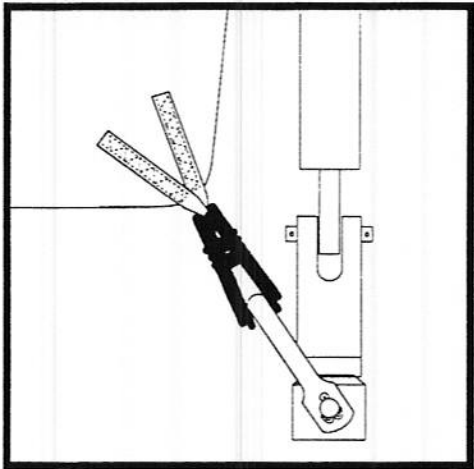
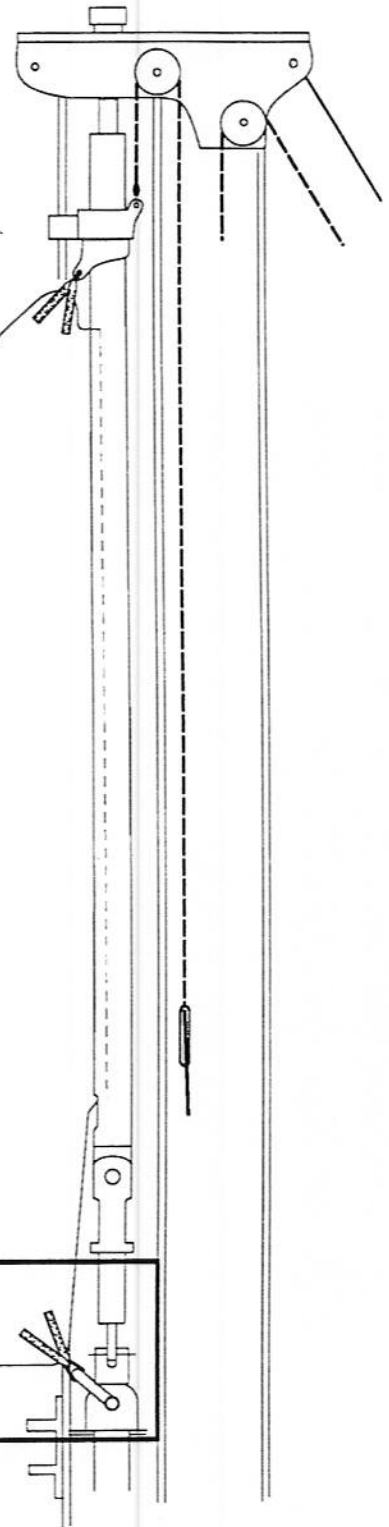
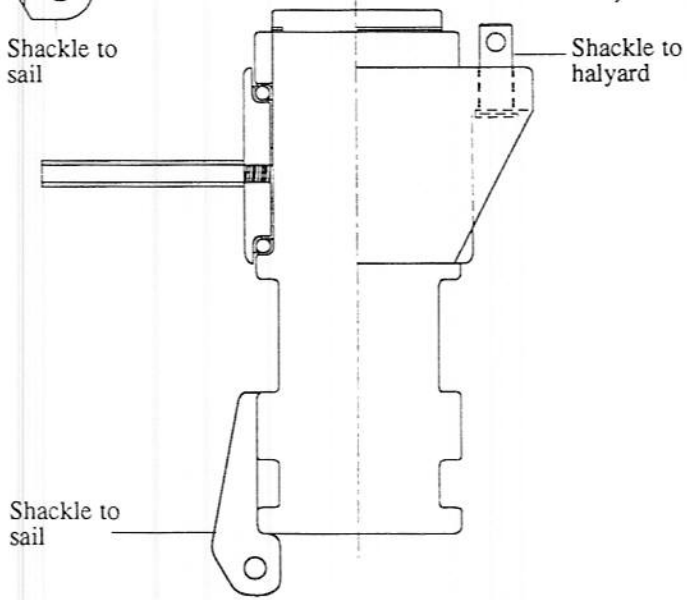
The Stoway Mast is designed and engineered to remain straight "in column", both fore and aft, and athwartships. The mast may be raked to improve helm balance, but do not sail with the Stoway Mast bowed. Tune mast to stand in column.

Mast bend will inhibit proper operation of the furling system and may void your warranty.

"A" LUFF ROD SWIVEL



DD LUFF ROD SWIVEL



The halyard swivel

The halyard swivel connects the head of the sail to the halyard. When furling and reefing the sail, the lower part of the swivel rotates with the sail, while the upper part is held by the swivel stop and the halyard.

Important points:

1. The stop on the halyard swivel should slide in the sail slot.
2. Main halyard should go straight to sheave at masthead and not become wrapped around the luff rod. Halyard wrap will cause the system to jam.

After connecting the sail to the halyard swivel, hoist the sail carefully. At the tack use a lashing and not a shackle so as to give a smoother fold when furling and reefing.

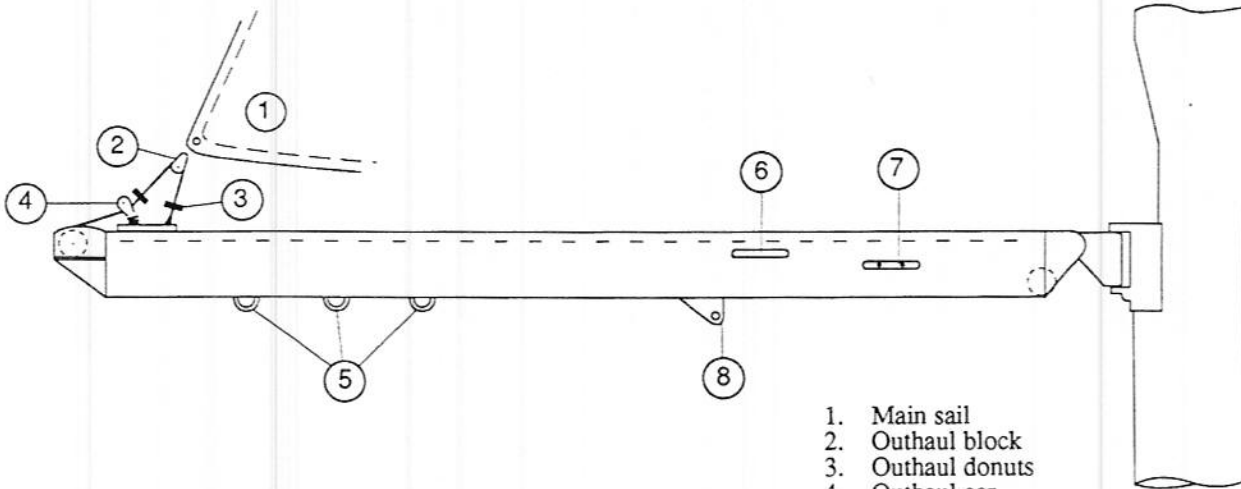
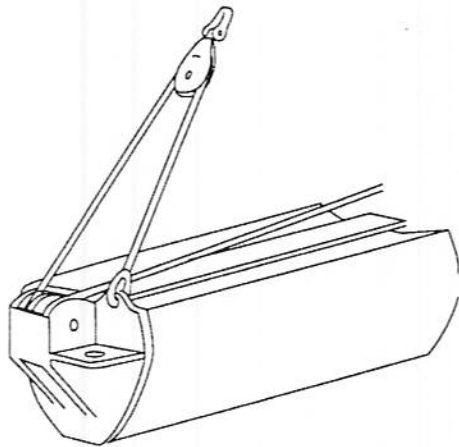
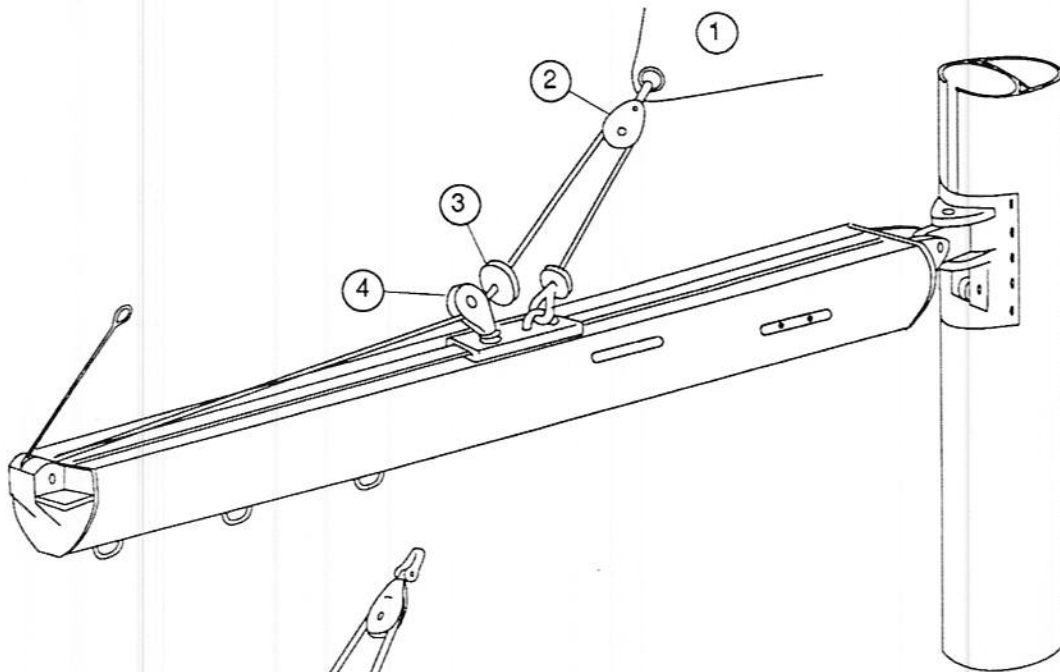
The main halyard

The main halyard is then attached to the halyard swivel.

Important: When the mainsail is up, the halyard swivel must not be above the top of the luff rod cover.

Installation of mainsail

1. Unwrap the mainsail from its protective bag and unfurl it completely.
2. Attach the halyard swivel to the head of the mainsail, being sure that the halyard swivel rides properly in the groove of the mast and that the main halyard is properly led from the swivel to the main halyard sheave, without twist (**be certain of this**).
3. Feed the sail in with as gentle a bend as possible in the sail's luff rod groove.
4. While one person slowly pulls the halyard, another should feed in the mainsail.
5. Be sure that luff tape remains inside the groove of the luff rod during the complete loading procedure.
6. Attach sail tack point with rope lashing to the tack bail.
7. Tension and cleat off halyard. Reminder: If using wire halyards, rope tail NOT wire should run through halyard stopper.
8. Attach clew of mainsail to outhaul block (See boom arrangement).
9. Pull out haul line, release tension from the main sheet. You are ready to furl the mainsail in.
10. Check your mainsail to see if leech and foot have the same tension.
11. Ease outhaul line gently, keeping minimal tension on it. Start furling the mainsail.



1. Main sail
2. Outhaul block
3. Outhaul donuts
4. Outhaul car
5. Boom bails
6. Topping lift exit
7. Topping lift cleat
8. Hydraulic vang lug

BOOM

Installation**Boom assembly and Installation**

The boom includes:

1. Boom extrusion with track.
2. Patented Hood outhaul system (includes outhaul car and 2 x donuts)
3. Inboard and outboard ends with 2 x sheaves in each.
3. Topping lift exit and cleat. (starboard side forward).

The boom is connected to the gooseneck by a stainless steel pin.

Topping lift

The topping lift is used to adjust the height of the boom so that the load on the leech and foot of the sail are almost equal. Some adjustment to the boom angle maybe required, depending on conditions.

Connect the topping lift as shown in the drawing. Raise the boom and cleat off topping lift when boom is approximately level (90°).

Attach all mainsheet hardware (blocks, line etc.) and check leads carefully.

In some installations the topping lift maybe lead through the forward end of the boom and then aft on deck.

Outhaul

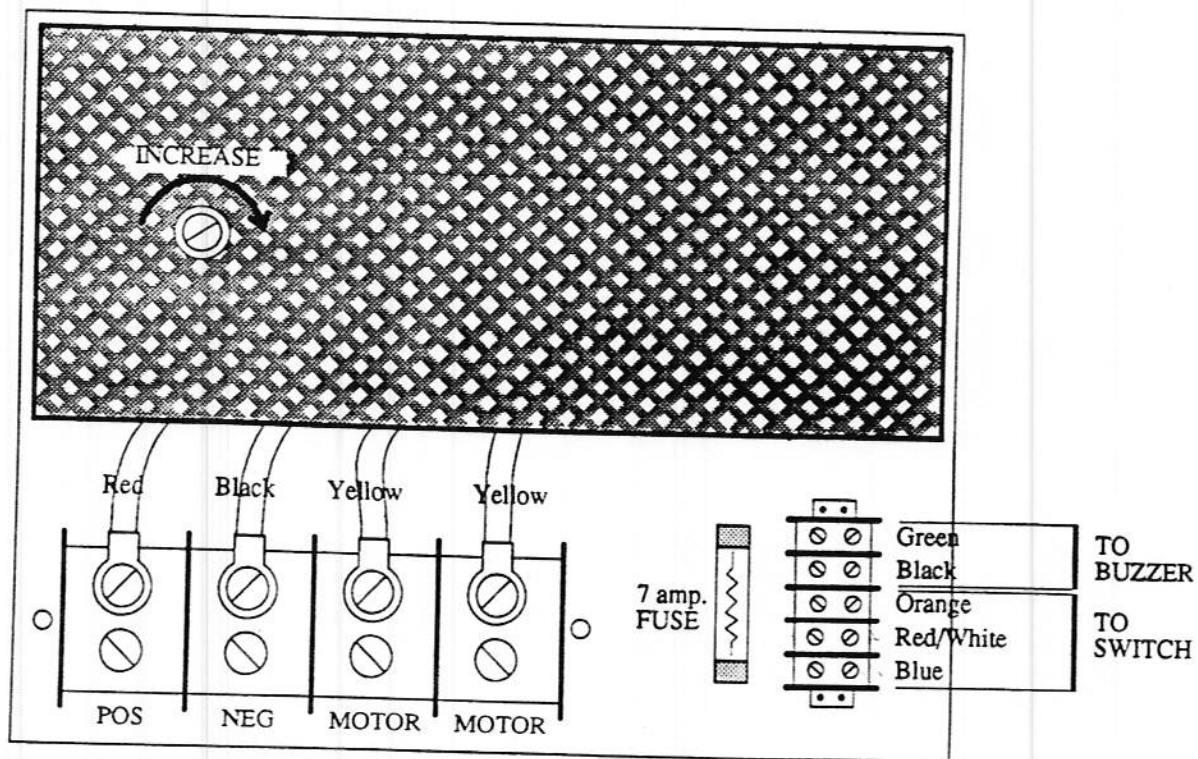
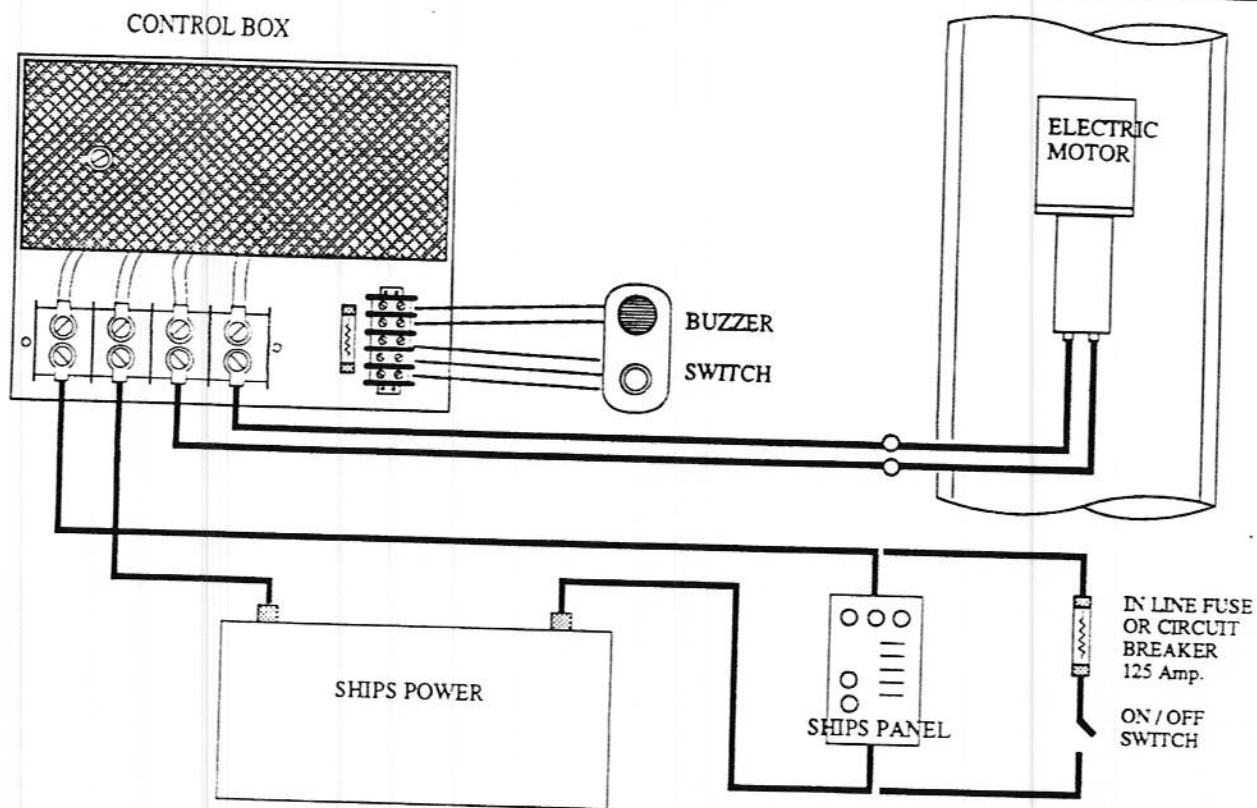
Connect outhaul line as shown in diagram. Be sure to place donuts between the sail sheave and outhaul car. This will avoid any possible jamming of the lines into the sheaves.

Boom vang

Stoway booms are provided with bails. These should be used for outboard vanging only (to the rail, chainplates, etc.), or as a preventer off the wind, and should not be used for vanging to the mast.

Hydraulics or other powerful vang's should not be used with a Stoway boom unless the spar and the boom have been specifically built to carry the required loads. Such use will void the warranty.

The Stoway sail is loose footed and therefore divides the loads of the foot between two points; the tack and the clew. (Applying high vang tension will only bow the boom and could cause failure). To flatten a Stoway sail, either increase the halyard tension or the outhaul line, but do not bow the mast or bend the boom excessively.



ELECTRIC DRIVE SYSTEM**Installation****How the electric drive system works**

The system includes:

- Gooseneck assembly
- Control box unit
- Control toggle switch and alarm buzzer

- A. **Gooseneck assembly:** Includes the electric motor, and manual emergency wheel drive unit, to be used in case of lack of power (remove wheel drive unit when not in use).
- B. **Control toggle switch:** (usually in the cockpit near the main outhaul winch) operates in two directions and is spring loaded to the center.
- C. **Control box:** One direction energizes two of the solenoids in the control box making the motor turn in one direction and the other direction energizes two solenoids making the motor turn in the opposite direction.
- D. **The alarm buzzer:** If the amperage is too high the alarm buzzer will sound. After 2 seconds the system will shut down completely. The system will automatically reset itself after a time delay of approx 5 seconds. This control prevents possible damage or overload to the system.

How to install the electric drive system

The positive line in the system should always be run through a non automatic resetting breaker of maximum 125 amps to protect the motor wires and control box wires from short circuiting. The circuit breaker or in line fuse should be added in series with a positive wire at the power source. This breaker fuse will trip after a time delay if the current is held well over 100 amps, and will trip almost immediately if there is a short circuit. A master disconnect switch between the breaker and the power source should be provided to allow the unit to be turned off. This switch should be wired as close to the battery as practical. These parts are not provided by Hood Yacht Systems.

Where to install the control box

Gasoline powered yachts require a control box circuit breaker and disconnect switch to be placed outside the bilge, engine room, and outside of gasoline storage areas, etc. (U.S. Coast Guard Safety Standard 183.410) Diesel powered yachts can use the engine room as a convenient spot for the control box, switch, and breaker. Refer to Coast Guard Department of Transportation Rules and Regulations for recreational boats. #M16752.2 (old CG - 497)

Wire sizes

Size	Wire length
#4 gauge	0 - 20 ft.
#2 gauge	21 - over.

Wiring

Refer to wiring diagram

- Step 1. Run two #4 wires from the base of the mast to the control box. Locate box in a Coast Guard approved area. The engine room can be used in diesel powered yachts, but not gasoline powered yachts. See regulations.
- Step 2. Connect the two black coated wires from the motor to the designated connections on the control box. It does not matter which one, as long as they both go to the motor.
- Step 3. Connect the negative wire from the control box to the negative side of the battery.
- Step 4. Connect the positive wire to a disconnect switch. We recommend the positive side to have a maximum 125 amp breaker or a line fuse on it.

Testing

- A. Before testing, disconnect the motor from the luff rod. Check to make sure the luff rod will turn freely when disconnected.
- B. Activate the control switch in each direction. You will hear the motor running and it is normal to hear a different sound in each direction.
- C. The system normally draws approx 65 amps to furl the sail, this may vary depending upon wind conditions. The system is set to shut down between 80-90 amps. This will allow the sail to be furled with minimum load on the sail.
- D. On all models a potentiometer is added to the system. It's location is on the cover of the control box. There you will find a slotted adjustment screw.
- E. To increase the amperage level, rotate the screw on the potentiometer clockwise. This amperage level will vary from boat to boat due to length of wire running from control box to motor.
- F. To adjust potentiometer without amperage meter, set the adjustment screw just above the level at which control box cuts out without any load on the mainsail (with outhaul).
- G. Questions on the electrical system can be directed to Hood Yacht Systems.

HYDRAULIC DRIVE SYSTEM**Installation****Hydraulic system**

The hydraulic system will come completely installed in the spar. After cutting the bury correctly and prior to installing the spar you will want to drill out the holes for the two hydraulic hoses to exit cleanly from out of the spar.

Connect the two hydraulic hoses to those coming from the hydraulic power pack.

Testing

Before testing the system be sure that the luff rod is free to turn and will not tangle with any halyards.

Activate the control switch in both directions. You will hear the motor running. It is normal to hear a different sound in each direction.

There is nothing further to do on a hydraulic system.

When completely satisfied with the operation of the unit (manual, electric, hydraulic) connect and raise the sail.

Always be aware of the possibility of halyard wrap when raising the mainsail.

ELECTRIC/HYDRAULIC STOWAY**Operation****Furling with electric/
hydraulic drive**

1. Head into the wind, ease the mainsheet.
2. Ease outhaul line keeping light tension.
3. Rotate the luff rod with the toggle switch, deflecting the switch in whichever way permits the sail to furl without bearing on the leeward edge of the luff slot (i.e. on the port tack furl in the clockwise direction; on the starboard tack furl in the counterclockwise direction). If you are headed directly into the wind it doesn't matter which direction you furl.
Note: Do not roll sail completely inside the mast. Leave one foot protruding from the sail cavity. This will avoid jamming and over tight furling.
4. Release switch if alarm buzzer sounds at any time. The buzzer indicates an overload of the motor. If not released the system will shut down automatically.
5. After a 5 second delay you will be able to operate the system again.

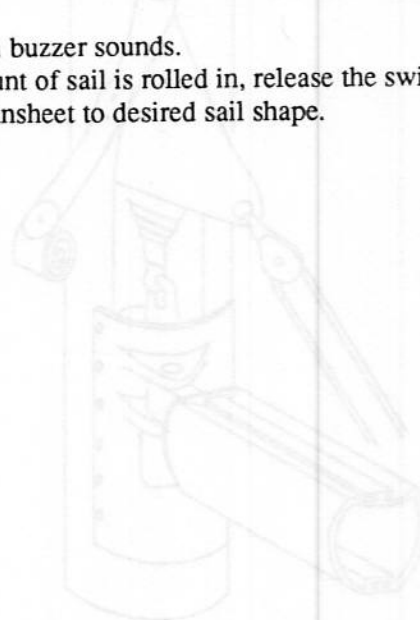
**Unfurling with electric/
hydraulic drive**

1. Be sure to relieve all strain from sail (i.e. ease outhaul or mainsheet or head into the wind).
2. Deflect toggle switch to unfurl.
3. Simultaneously keeping light tension on the outhaul line.
4. When sail is unfurled, release switch and adjust outhaul line, slacken topping lift, adjust sheet tension.

**Reefing with electric/
hydraulic drive**

This procedure is very similar to the furling procedure.

1. Ease mainsheet and head up into the wind to relieve all strain from sail, or if maneuvering room is unavailable, let sail luff fully.
2. Ease outhaul line keeping light tension on it as reefing commences.
3. Deflect switch in proper direction and furl sail as described in the section on furling.
4. Release switch if alarm buzzer sounds.
5. When the desired amount of sail is rolled in, release the switch and adjust outhaul, and mainsheet to desired sail shape.



General

Do not furl a wet sail and leave it for a long period of time. This could result in mildew occurring on the sail cloth. If winterising your yacht (and leaving the spar in the boat) it is recommended to remove the sail completely. When ever washing the decks down with fresh water remember to also wash down around the gooseneck area of your Stoway spar. This will help avoid salt crystal build up on the system. A visual inspection of the complete mast and standing rigging should be carried out at least once a year. Any noticeable problems should be taken care of immediately.

Masthead bearing assembly

This should be checked and cleaned at least once a year depending upon your overall sailing time. To inspect the bearing first remove the plastic cap at the masthead. When greasing these bearings use any standard marine grease.

Upper halyard swivel

Clean and check once a year. To do this properly the mainsail should be lowered and the inspection done at the gooseneck area. Flush the unit out with fresh water (hot if you like) and then spray bearing with a WD-40/CRC type lubricant.

Manual gooseneck

Flush the gooseneck area regularly with fresh water (when cleaning the decks). Spray the upper bearings with WD-40/CRC. type lubricant. Operate the manual "locking pin" to ensure it has not become "frozen" through lack of use.

Electric/Hydraulic gooseneck

Flush the entire gooseneck area with fresh water frequently (when you clean the decks). Look for possible leaks around the emergency handle seal and the gearcase drain hole. The gears operate in an oil bath (transmission fluid) and so tell-tale leaks would be recognised by the red transmission fluid. There is no "internal" maintenance to do on these systems. A complete overhaul should be done only by Hood Yacht Systems or their designated service centers.

Storage

We recommend that the sail be removed prior to storage. The Stoway mast should be stored level and supported evenly throughout its entire length. The mast should be stored with the sail slot facing down so that water, dirt and other contaminants cannot get into the sail cavity or furling gear. The sail should be removed and stored in a cool dry location. Always inspect the entire mast and its systems before recommissioning the yacht after storage.

ELECTRIC DRIVE
Trouble Shooting

PROBLEM	CAUSE	SOLUTION
Motor turns one way only	Toggle switch faulty.	Test the electrical circuit, and in particular the toggle switch to control box.
	Solenoid defective in control box.	Reverse wire coming from battery on the control box. Contract Hood Yacht Systems for replacement solenoid.
Motor runs intermittently	Toggle switch faulty.	Test the electrical circuit. Check all wire connections.
	Motor.	Check and clean brushes.
Motor does not operate	Short circuit.	Check ship's panel and power supply.
	Circuit breaker tripped or in line fuse.	Check ship's panel and circuits.
	Control box malfunction.	Check the 7 amp fuse in the control box and replace if required.
Buzzer goes off and motor shuts down.	Too much tension on the outhaul	Check that outhaul line runs freely with minimal tension applied during furling.
	Amperage setting too low.	Check manual on how to furl with electric drive. Increase the amperage (see page 26).

HYDRAULIC DRIVE

Motor does not operate.	Power failure to the hydraulic pump system.	Test all electrical circuits to pump system. Check/test switching mechanism.
Motor operates slowly.	Insufficient rate of flow from hydraulic system.	Check flow rate and pressure.
Motor operates but stalls with very little pressure.	Insufficient oil pressure.	Check system's pressure. check all hydraulic hose connections.
Motor operates but cuts out due to high pressure.	Possible overload on system.	Inspect luff rod, halyard swivel for possible damage or halyard wrap. Watch sail when operating for possible jamming.

If ever in doubt please contact Hood Yacht Systems direct or one of our Dealer/Service Centers.

HOOD LIMITED WARRANTY FOR STOWAY MAST PRODUCTS

I. **WARRANTY:** Hood Yacht Systems warrants that Hood Stoway Mast products will be free from defects in material and workmanship for a period of one year. That period shall commence upon receipt of the Hood warranty registration card within 30 days upon receipt of the goods. Any part which proves defective in normal usage during the one year period will be repaired or replaced by Hood Yacht Systems.

This Warranty is subject to the following conditions and limitations:

- A. Hood Yacht Systems liability shall be limited to repair or replacement, at Hood Yacht Systems discretion, of goods or parts defective in materials or workmanship. This shall be the buyer's exclusive remedy.
 - B. Except where otherwise specified, quality shall be in accordance with Hood Yacht Systems specifications.
 - C. The Hood Stoway Mast must be installed and maintained properly and used under normal conditions in the application for which they were intended.
 - D. Hood Yacht Systems shall not be responsible for shipping charges or installation labor associated with any warranty claims.
 - E. Terms of this limited warranty shall be 90 days if the product is used in commercial, rental or charter operations as well as with respect to any swaged attachments to wire, either standing or running rigging.
- II. Failure to obtain an owner's manual or otherwise be aware of the information contained in the owner's manual may void this warranty.
- III. The limited warranty is in lieu of all other warranties; any implied warranties are limited in duration to the duration of the warranty stated here.
- IV. Hood is not responsible for consequential damages of any sort, to the extent that such exclusion is permitted by applicable law.