HOOD
YACHT SYSTEMS

Sea Flex™

Installation Instructions

HOOD Yacht Systems, Pompanette LLC
7712 Cheri Court
Tampa, Florida 33634
Tel: (813) 885-2182 www.pompanette.com

SEA FLEX
Installation Manual

SEA FLEX

Hood Yacht Systems products are supported by a network of authorized dealers.
For information on Hood Yacht System products, contact your local dealer or

Hood Yacht Systems
Pompanette LLC
7712 Cheri Court
Tampa, FL 33634 USA
Customer Service (603) 826-5791
Tel: (813) 885-2182
Fax: (813) 888-5793
Email: seafurl@aol.com
www.pompanette.com

SEA FLEX

Congratulations and thank you for purchasing the **SEA FLEX** furling system. The **SEA FLEX** offers a flexible, easy to fit plastic furler, ideal for smaller boats. Incorporating all the design experience of **Hood Yacht Systems**, the **SEA FLEX** offers a low weight, low cost resolution to smaller day boat sailing. These instructions walk you step by step through installing your **SEA FLEX**. Take your time, be careful, check your measurements twice, familiarize yourself with all the parts, and enjoy the installation process. Remember, around a boat, it's always **SAFETY FIRST**. Good sailing, and thanks again for choosing the **SEA FLEX** by **Hood Yacht Systems.**

SAFETY AND PLANNING

Hood Yacht Systems strongly suggests that you inspect the condition of your mast fittings and headstay before attempting installation. If your headstay has been in a saltwater environment for more than four years, shows any fraying or rust contamination, you should consider replacing it prior to installation.

Read through all the instructions, familiarize yourself with the parts, and make sure you understand them before beginning.

The quality of your installation is heavily dependent on prior planning. Therefore it is critical that you make sure the drive unit will have adequate clearance over deck hardware, bow pulpits, anchor lockers doors, bow anchors, bow anchor rollers, etc.. Inadequate clearance can be remedied with the addition of stay extension hardware available from rigging suppliers. Hood Yacht Systems recommends using as short an extension as possible due to the loss of performance of the unit and sail as extensions become longer.

Installing the unit during inclement weather or without adequate work space is heavily discouraged.

Remember, anytime you're on or around a boat, it's always **SAFETY FIRST.**

HOOD YACHT SYSTEMS
Pompanette LLC
7712 Cheri Court
Tampa, FL 33634 USA
Customer Service: (603) 826-5791
Tel: (813) 885-2182
Fax: (813) 888-5793
Email: seafurl@aol.com
www.pompanette.com

READ THIS PAGE

In order to ensure continued satisfaction and trouble-free operation it is necessary to follow the simple guidelines listed below.

1) **Watch for halyard wrap. Look up!**

2) **If it jams - find out why - Don't force it.**

3) **Treat this unit like any other equipment - inspect it regularly.**

4) **If any problem persists, call your dealer.**

SEAFLEX KIT CHECK LIST

SEAFLEX DRUM KIT H9198-1

QTY.	PART NO.	DESCRIPTION	
2	H9202-TOP	TOP DRUM HALVES	_____
2	H9202-BOTTOM	BOTTOM DRUM HALVES	_____
2	H10008	CAGE ASSEMBLY HALVES LEFT & RIGHT	_____
1	H9208 MARK II	SS LOWER BEARING	_____
2	H8-32X1/2"SHCS	8-32 SOCKET HEAD CAP SCREWS	_____
2	H8-32 STOP NUTS	8-32 STOP NUTS W/NYLON INSERTS	_____
4	H10-24X1/2SHCS	10-24 SOCKET HEAD CAP SCREWS	_____
4	H10-24-NUT-SS	10-24 NUTS SS	_____

SEA FLEX TOP CAP KIT H9199-1

QTY.	PART NO.	DESCRIPTION	
2	H9199	TOP CAP HALVES	_____
2	H10-24X1/2RHMS	ROUND HEAD MACHINE SCREWS	_____
2	H10-24-NUT-SS	10-24 NUTS SS	_____

SEAFLEX EXTRUSION KIT H10001-33-1

QTY.	PART NO.	DESCRIPTION	
1	H10001	SEA FLEX EXTRUSION 33 FT	_____
1	H9201-L	FURLER HOUSING LEFT	_____
1	H9201-R	FURLER HOUSING-RIGHT	_____
10	H10-24X1/2RHMS	ROUND HEAD MACHINE SCREWS	_____
1	H9210	SHACKLE 3/16	_____

SEA FLEX HALYARD SWIVEL KIT H10002-1

QTY.	PART NO.	DESCRIPTION	
1	H10002	HALYARD SWIVEL ASSEMBLY	_____

SEA FLEX RIGGING PIN KIT H9209

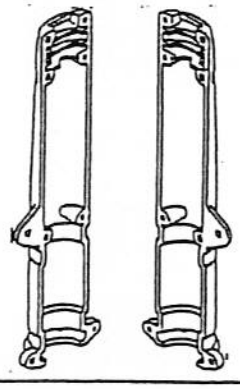
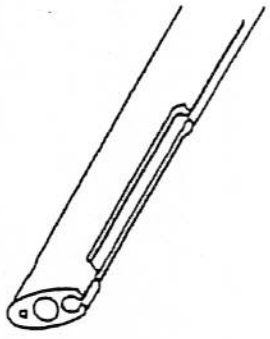
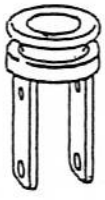
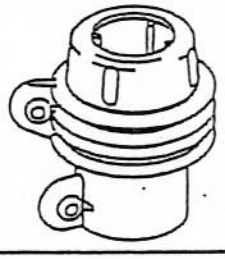
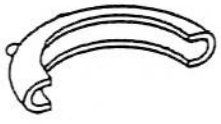
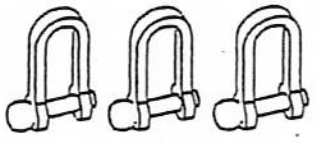
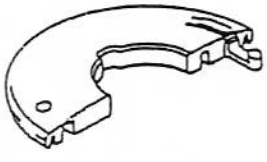
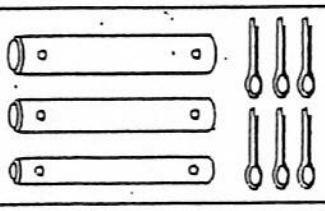
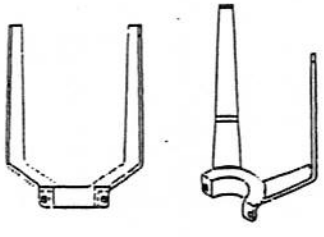
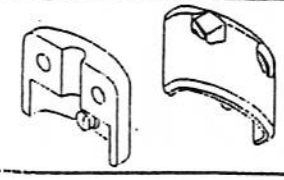
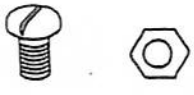
QTY.	PART NO.	DESCRIPTION	
1	1/4" RIGGING PIN	1/4" RIGGING PIN	_____
1	5/16" RIGGING PIN	5/16" RIGGING PIN	_____
1	3/8" RIGGING PIN	3/8" RIGGING PIN	_____
6	COTTER PINS	COTTER PINS	_____

QTY.	PART NO.	DESCRIPTION	
1	H9200	INSTALLATION MANUAL	_____
1	6850-3000	WARRANTY CARD	_____

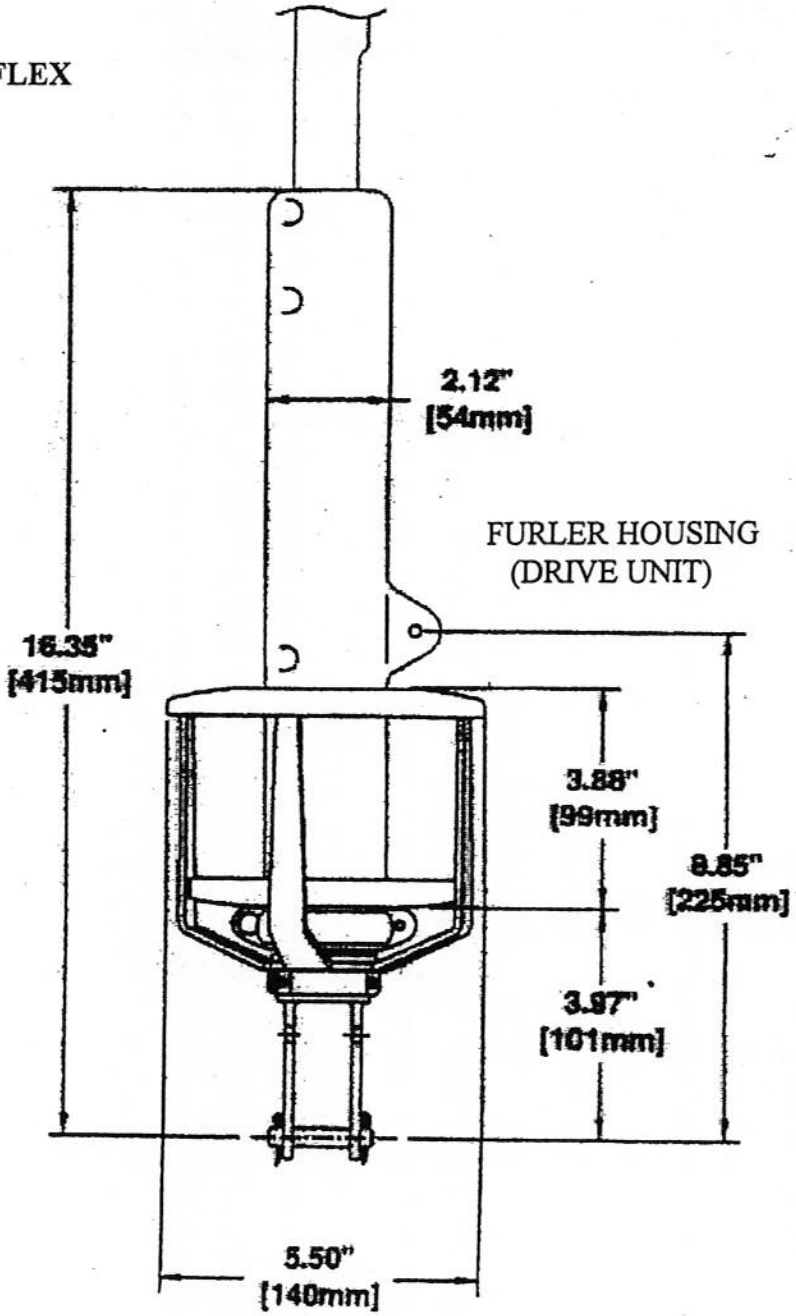
PACKAGED BY_____ DATE_____

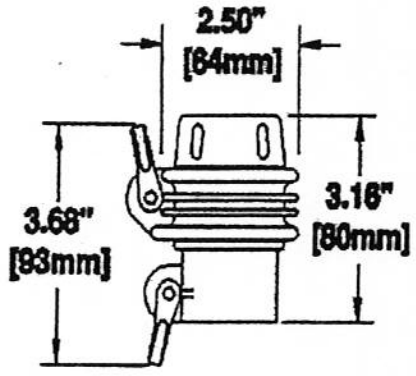
CHECK COMPONENTS

Before starting to install your furling system, check to see that your **SEA FLEX** package includes the following items.

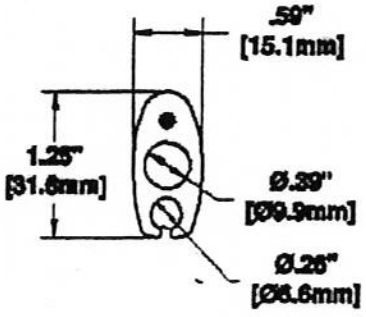
	Part Number / and Description		Part Number / and Description
	H9201 Furler Housing Left and Right		H10001 Extrusion (33')
	H9208 MARK II Lower Bearing		H10002 Halyard Swivel Assembly
	H9206 Low-friction bearing liner (2 PRE-INSTALLED in furler housing halves)		H9210 3/16" Shackle 3 required per assembly
	H9202 Top & Bottom Drum Cover Halves 2 Top , 2 Bottom		H9209 Rigging Pin Kit (1/4", 5/16", 3/8", 6 cotter pins)
	H10008 Cage Assembly Left and right		H9211 Bushing 2 Required per assembly (1/4")
	H9199 Top Cap Halves		10-24X3/8" Screws 8 required per assembly (furler housing)
	8/32X1/2"Screws 8/32X1/2" Nuts 2 each required per assembly (drum halves)		10-24X1/2" Screws 10-24X1/2" Hex nuts 2 each (Cage Halves) 2 each (Top Cap)

SEA FLEX





HALYARD SWIVEL



EXTRUSION
#5 Luff Tape

SEA FLEX INSTALLATION INSTRUCTIONS

WARNING!! READ THIS NOW!!!

USE EXTREME CAUTION WHEN CUTTING THE WIRE TIES AND UNCOILING THE EXTRUSION.
THE **EXTRUSION IS COILED UNDER TENSION** AND HELD IN PLACE BY THE WIRE TIES.
WEAR EYE PROTECTION!!! HAVE SOMEONE ASSIST IN CUTTING AND UNCOILING THIS EXTRUSION.

The plastic Luff Extrusion (Part #H10001) comes coiled in a box. After removing it, be very careful cutting the ties holding the luff extrusion in a coiled position **(SEE ABOVE).** There is enough tension in the coiled luff extrusion that will cause it to uncoil with **force.**

Some memory of it being coiled is retained when the coil is unwrapped. To reverse the affects of the coil the luff extrusion must be **gently** bent in the opposite direction to how the coil was formed.

1) Unwrap the extrusion in an area where there is 30 feet of uninterrupted surface to lay out the extrusion.
2) Starting at either end, hold the extrusion at waist height, slowly and gently walk along until you reach the other end having flexed the entire extrusion.
3) At this point the extrusion has gently long curves in it but no kinks or sharp curves. When it has been installed, the tension of the headstay will eliminate the remaining curvature.

INSTALLATION OF THE LUFF EXTRUSION

1) Determine the length of the luff extrusion required. The upper end of the extrusion should terminate approximately 4 inches from the masthead crane or halyard sheave. Hoist a tape measure aloft with the jib halyard. Measure down to the center of the hole where the headstay stemhead clevis pin is mounted. With the tape about 4 inches from the mast, record the length. Subtract 14 3/8 inches. This is the length to cut the extrusion. 14 3/8 inches is the distance from the clevis pin to the bottom of the extrusion when mounted in the furler body.

NOTE: The upper end of the luff extrusion should be close to the mast without making contact. Masthead designs vary greatly. Fractional rigs need to have greater clearance at the top of the extrusion. If a fractional rig has an external tang and external halyard block, the extrusion must terminate even further away.

INSTALLATION OF THE LUFF EXTRUSION (CONT.)

2) Cut the top of the extrusion with a **fine tooth hacksaw. DO NOT** cut the end that is machined to mate to the Furler Housing.

WARNING! DO NOT USE A POWER SAW!

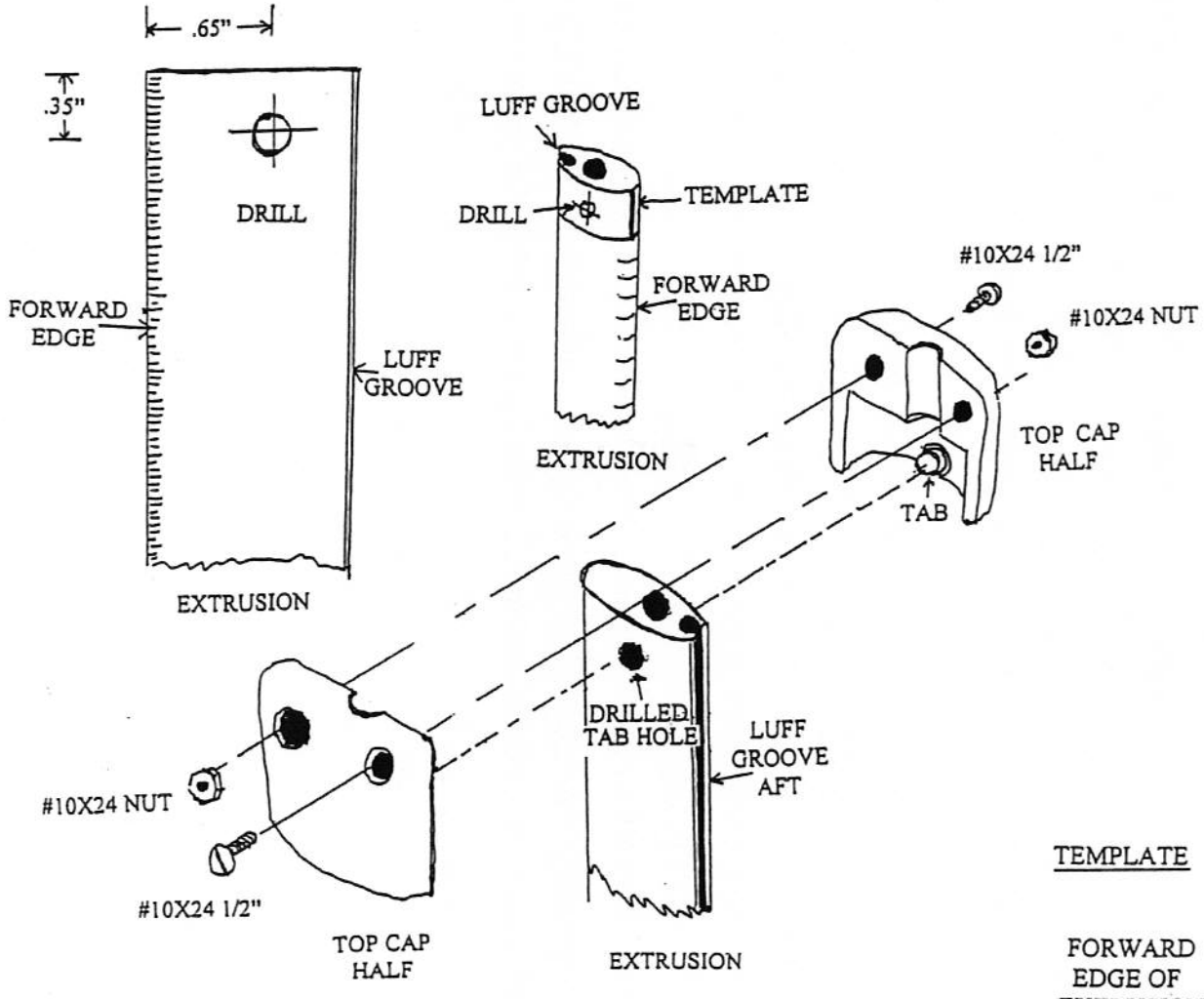
There is a stainless steel cable inside the luff extrusion, it is DANGEROUS to use anything other than a fine tooth hacksaw!

3) Using the template provided, wrap it around the extrusion **top** as indicated (or use the measurements in the instructions), and drill at least a ¼ inch hole completely through the **top** of the extrusion for the tabs inside the top cap halves to fit into. Note that the hole can be slightly oversized.
4) Run a light messenger line through the extrusion. You may use a wire or plumbers snake to feed it through, or you can tie a weghted object to the line and drop it down through the extrusion.
5) Secure the jib halyard to the stemhead. **Be sure the jib halyard is secured properly and capable of supporting the mast.** Exercising extreme caution and keeping SAFETY in mind, disconnect the headstay (slackening the backstay if required) and disassemble the stemhead turnbuckle. Tape the messenger line to the to the swaged stud at the bottom of the headstay and begin to feed the extrusion over the wire. Lift the extrusion over the headstay as high as possible with another person pushing on yhe extrusion and pulling the messenger line. At this point, by alternately lifting the extrusion and pulling on the messenger line, the headstay will come through the extrusion.
6) Assemble the two Top Cap Halves (Part #H9199) together on to the top of the extrusion, using two Round Head Machine Screws and Hex Nuts. The tabs inside the Top Cap Halves should fit into the holes drilled through the top of the extrusion.

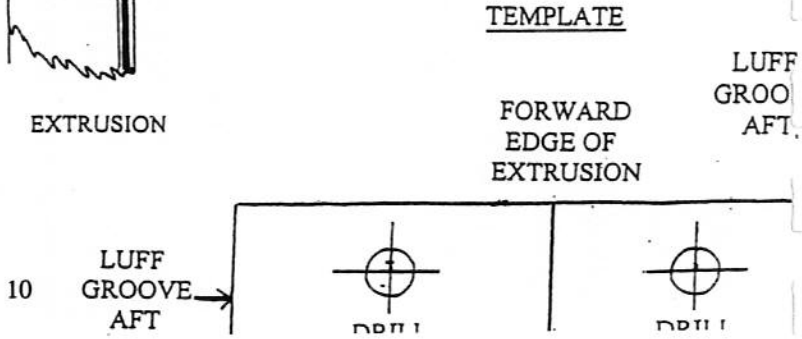
PARTS LIST AND ASSEMBLY INSTRUCTIONS
SEA FLEX
TOP CAP KIT H9199-1

QTY.	PART NO.	DESCRIPTION
2	H9199	TOP CAP HALVES LEFT AND RIGHT
2	H10-24X1/2RHMS	10-24X1/2 ROUND HEAD MACHINE SCREWS
2	H10-24-NUT-SS	10-24 NUTS SS

1. Cut out the template provided and wrap it around the extrusion **top** as indicated (or use the measurements in the instructions). At the mark indicated (⊕) drill a ¼ inch hole completely through the extrusion. (Note that the hole can be slightly oversized).
2. Assemble the two H9199 Top Cap halves together on to the top of the extrusion, using the two #10-24 ½ inch screws and hex nuts. The tabs inside the top cap halves should fit into the holes drilled through the extrusion.

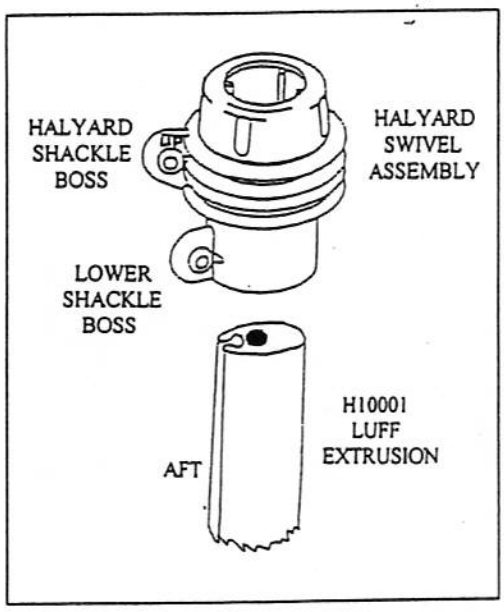


TEMPLATE

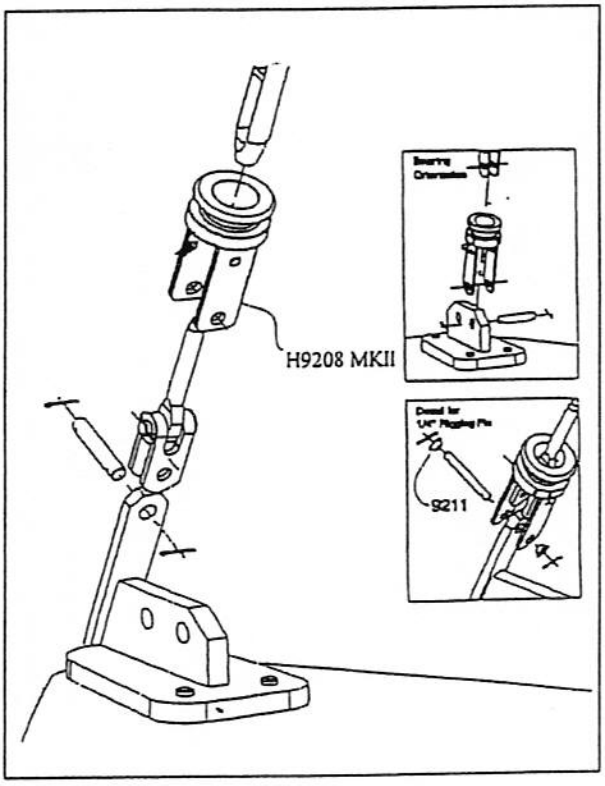


ASSEMBLY OF THE LOWER UNIT

1) Align the lower shackle boss on the Halyard Swivel Assembly (Part #H10002) with the aft side of the luff extrusion (side with the groove in it) and slide the Halyard Swivel Assembly over the luff extrusion with the upper shackle boss on top. **(marked UP)**



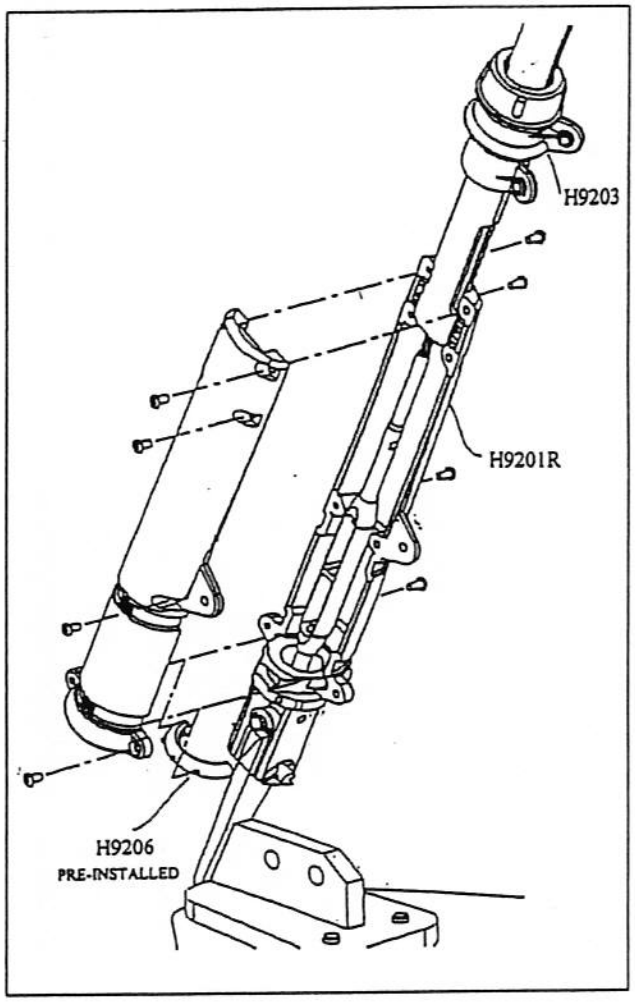
2) Pass the threaded portion of the toggle end of the turnbuckle up through the Lower Bearing (Part #H9208 MKII). Then thread the lower portion of the turnbuckle into the turnbuckle body. If your boat has a 1/4" diameter clevis pin you need to use the Bushings (Part #9211). The shoulder on the bushing goes into the 3/8" diameter hole in the bearing. Now the turnbuckle must be tightened to the original position.



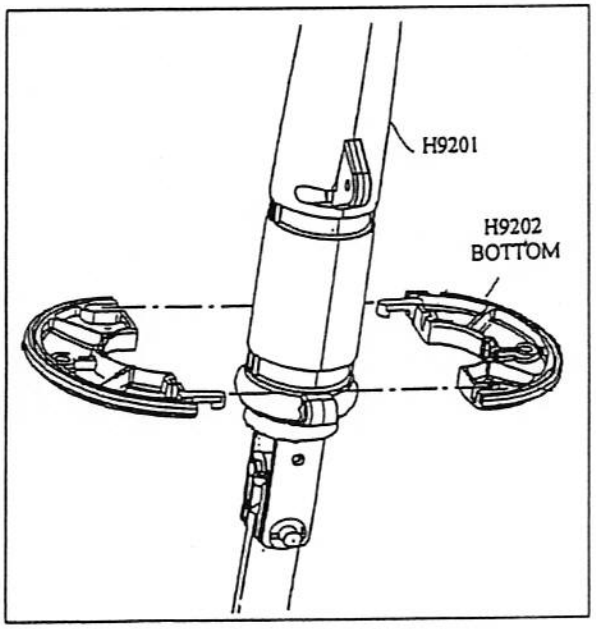
ASSEMBLY OF THE LOWER UNIT (CONT.)

3) Be sure that the PRE-INSTALLED Bearing Liners (Part #H9206) are firmly pressed into the Furler Housing Halves (Part #H9201).

4) Align the aft side of the luff extrusion with the tack shackle boss of the furler housing. With the eight Round Head Machine Screws (Part #H10-24X1/2RHMS)provided, screw the two halves of the furler housing together beginning at the bottom. At this point the tack shackle boss on the aft side of the furler housing and the tack shackle boss on the halyard swivel should be aligned.

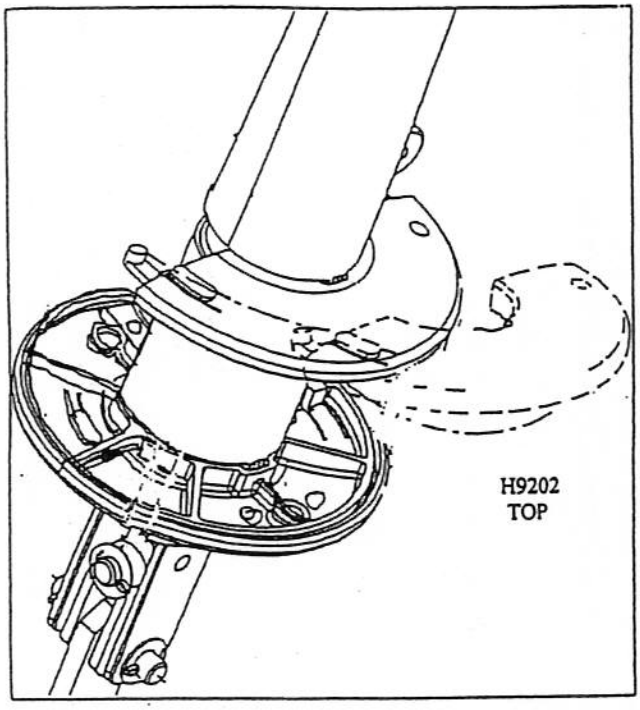


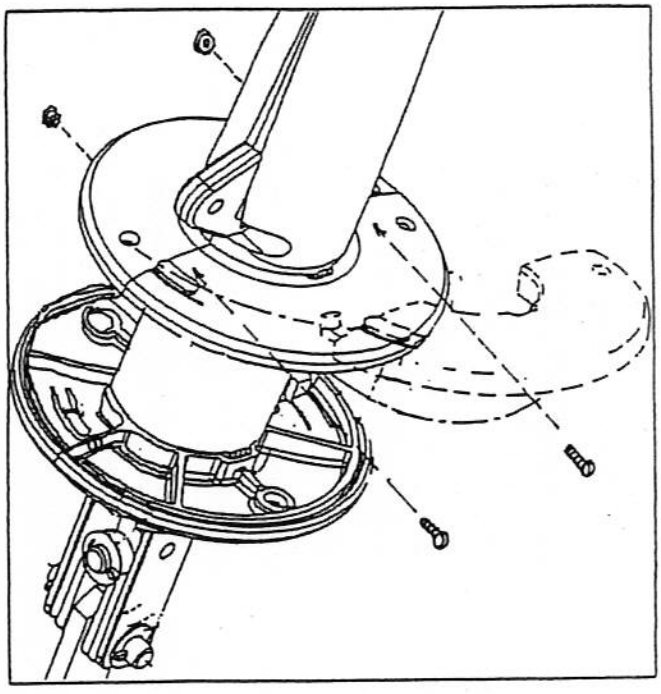
5) Snap on the Bottom Drum Covers (Part #H9202) (smaller diameter than the top drum covers) and lock them together in the lower position on the furler housing. Install two Socket Head Cap Screws (Part #H10-24X1/2SHCS) and Nuts (Part #H10-24-NUT-SS) inside the Bottom Drum Covers.



ASSEMBLY OF THE LOWER UNIT (CONT.)

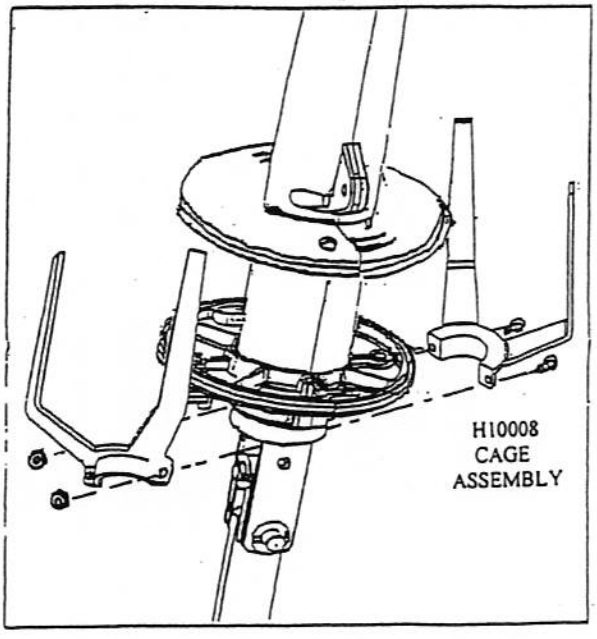
6) Attach the two remaining drum covers (Part #H9202 Drum Covers Halves, Top) to the furler housing. Lock them together and then install the two screws and nuts inside the covers.





7) Slide the two Cage Assembly Halves (Part #H10008 Left and Right) around the Lower Bearing below the bottom drum cover. Secure with two Socket Head Cap Screws (Part #H8-32X1/2"SHCS) and Stop Nuts (Part #H8-32-STOPNUTS).

NOTE: Align the cage assembly with one arm pointing **aft** along the **centerline**

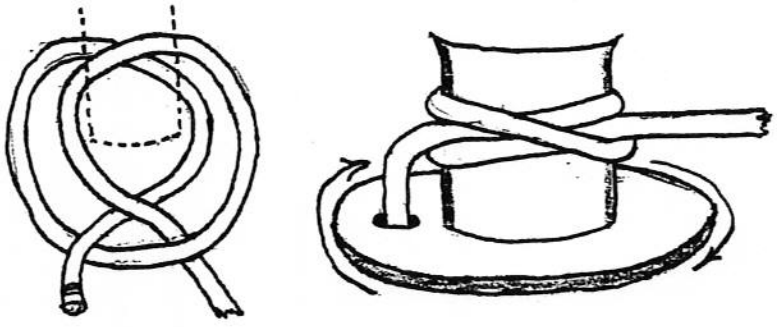


ATTACHING THE FURLING LINE AND THE SAIL

1) Boat length and sail LP determine the length of the furling line needed. An average 25' boat will require a 35 foot line while a 20 foot boat could use a 30 foot line. Do not use a line larger than ¼ inch. It's better to have a little too much line than not enough.
2) Begin with inserting the end of the furling line into the hole in the bottom drum cover and tie an "overhand bend" stopper knot. Make sure the stopper knot is secure and not too large so it won't interfere with the cage halves. Make sure the end of the line is short enough that it won't become snagged on anything as the drum/furler housing **must** rotate freely.

NOTE: Due to the great variation in masthead construction, sail stretch and individual halyard loads, the following sail installation instructions should be carefully followed. If you install your Sea Flex as follows, a smoothly operating system will be assured.

3) Pass the line around the drum part of the furler housing and bend on a clove hitch. Tie it as shown if you're going to wind your furling line on clockwise, and just the opposite if you're winding it on counterclockwise. The drawing of the clove hitch itself is exaggerated. The clove hitch actually should be lower on the drum, tied closely up to the end of the line going through the hole in the bottom drum cover.



4) Rotating the drum/furler housing, feed the line onto it. Try to avoid inducing "twist" into the line. If the UV cover is on the port side of your sail, rotate the drum/furler housing counter clockwise, and if the UV cover is on the starboard side rotate the drum/furler housing clockwise.
5) Attach the head of the sail to the lower shackle boss on the halyard swivel with a 3/16" Shackle (Part #H9210), but do not attach the tack of the sail.
6) Feed the luff tape of your sail into the luff groove in the extrusion as you hoist it.
7) After attaching the halyard to halyard swivel, hoist the sail and swivel as far as it will go, without straining, and secure the halyard.
8) Down haul the sail, utilizing a spare line temporarily attached to the sail tack, and lead through the tack sheave shackle until the maximum desired luff tension is achieved.
9) Furl and unfurl the sail several times while watching the halyard swivel, to see if it is rotating smoothly and that there are no restrictions in it's operation.
10) Remove the temporary spare line attached to the tack and attach your sail as normal.
11) Check that you have enough furling line on the drum. (Too much is better than not enough)

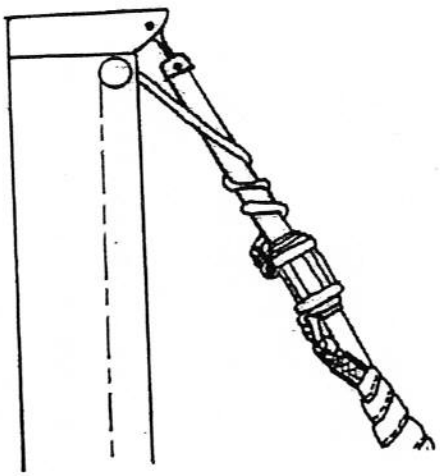
NOTE: IMPORTANT -There should **always** be at least **three wraps** of furling line around the drum **even** when the sail is tightly furled with several wraps of sheet around the furled sail.

FURLING THE SAIL UNDERWAY

When reefing or furling your sail underway it is important to luff your sail or head up into the wind and ease the sheets. If reefing, advance your lead forward to keep the trim stripe (on a Hood sail) lined up with the sheet. Keep minimum sheet tension to hold a tight furl. If you have your halyard tightened up to maintain luff shape, ease the halyard to help prevent "halyard wrap" and to free up the movement in the system.

HALYARD WRAP

Halyard wrap is a situation that arises during the furling and unfurling of your jib, when the halyard swivel does not "spin" allowing the jib halyard to remain stationary. As the sail is rolled in or out, the halyard and swivel assembly roll with it, winding itself around the headstay.



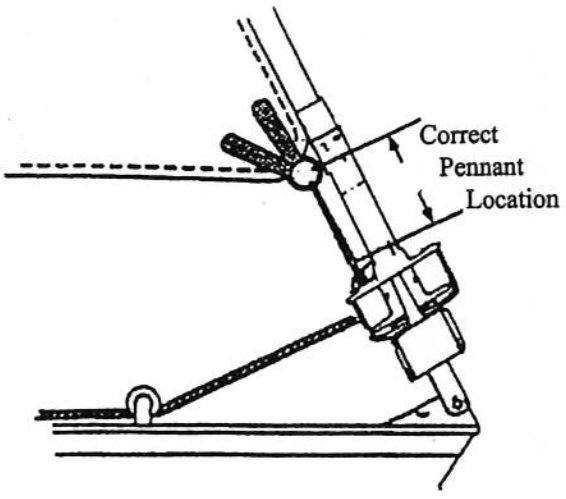
NOTE: Halyard wrap is probably the most common problem associated with furling systems. It's also the easiest to correct through proper installation.

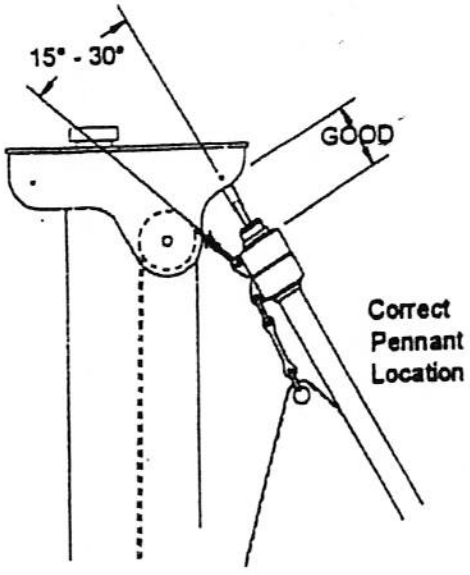
1) The key to avoiding halyard wrap is the angle created between the halyard swivel (With sail fully hoisted) and the halyard exit box.
2) Do not over tighten the jib halyard. The force to furl the sail increases with tension on the halyard. Tighten the halyard just enough to eliminate wrinkles along the luff. To extend the life of the sail, it is always a good idea to ease the jib halyard tension when not sailing.
3) The halyard swivel should be within 8 inches of the halyard sheave in most instances. This is achieved (when required) by using a pennant on either the head or tack of the sail.
4) The halyard must pull up parallel or away from the headstay to achieve the correct angle or halyard wrap will occur. This condition can most easily happen on fractional rigged boats with internal halyards.

PENNANTS

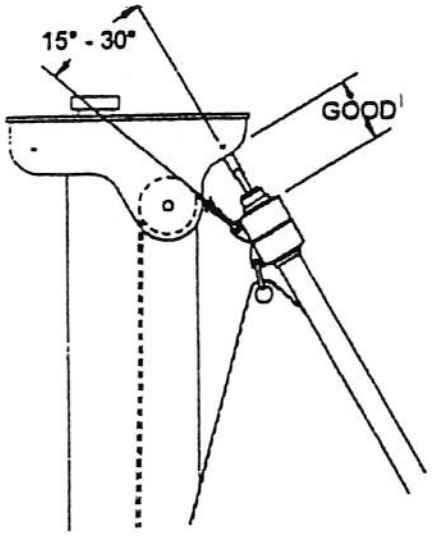
If the final distance between the sail tack and tack shackle is greater than 6 inches (152mm) a temporary lashing should be replaced with a permanent wire pennant. If this distance is less than 6 inches a pennant lashing with a minimum of three round turns of lin can be used. You may choose to leave the pennant at the tack or place it between the halyard swivel and the head of the sail.

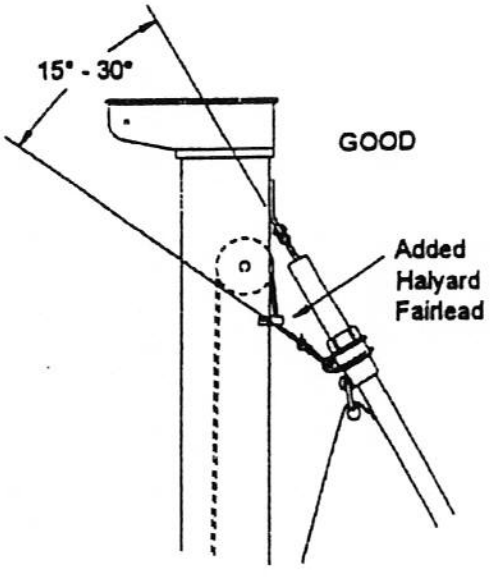
CORRECT PENNANT LOCATION

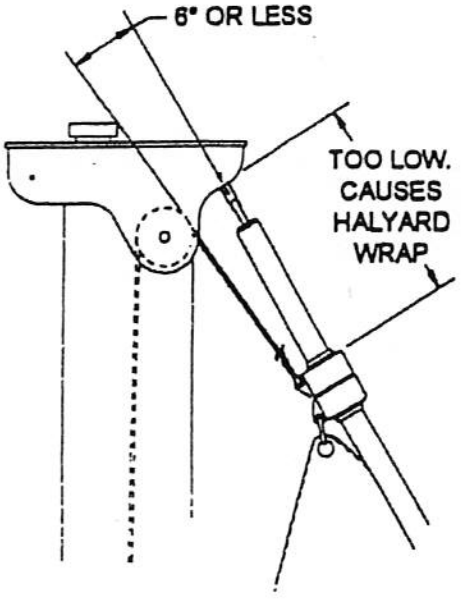


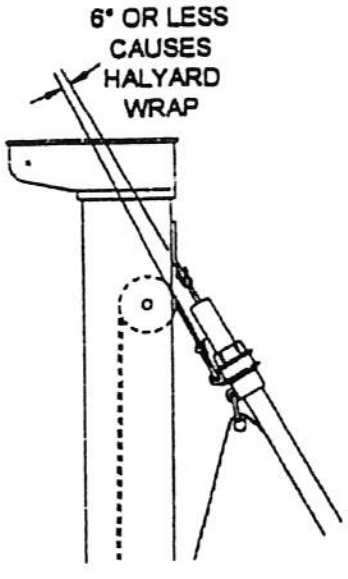


CORRECT HALYARD ANGLE





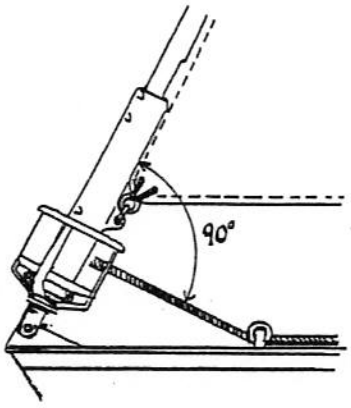




LOCATE THE FIRST LEAD BLOCK

In determining which side of the boat you want to install the first lead block, a port or starboard exit of the furling line from the drum is optional. There are an infinite number of ways to lead your furling line aft to a position of convenient and efficient operation. It is **most** important to set up the proper 90 degree lead angle from the furler housing to the first swivel lead block.

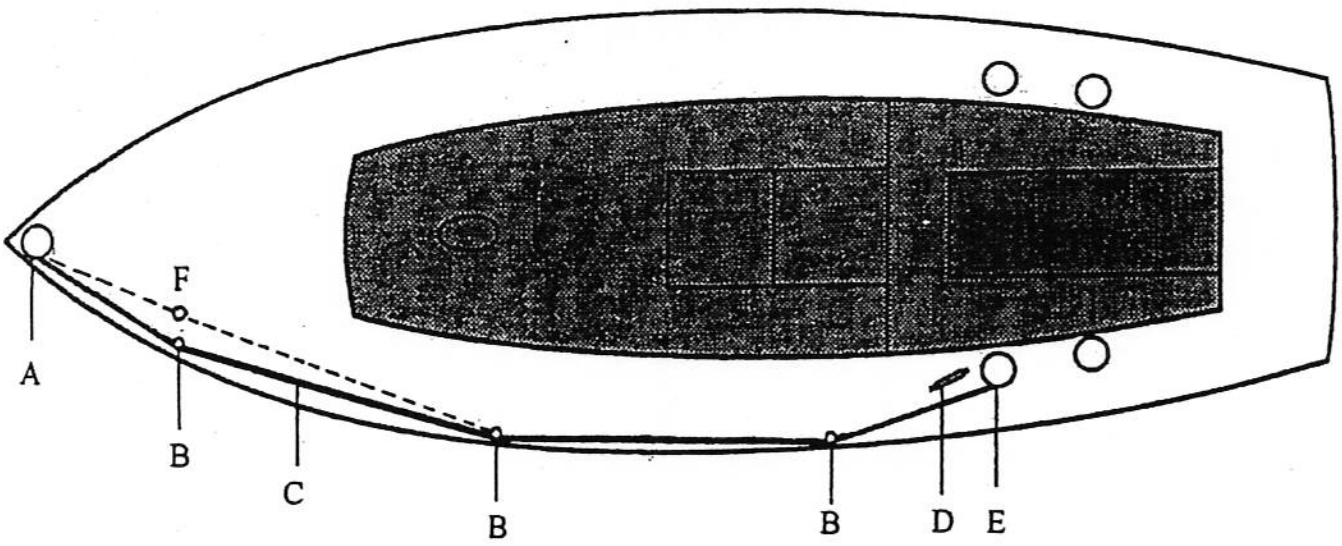
1) With one hand, tension the furling line while you position the lead block with the other hand until a 90 degree angle is achieved between the headstay and the furling line as it leaves the drum.
2) When the proper position has been determined, mark the position and securely install the first lead block. A stand-up type block works well.
3) Stanchion bases (if one is in the right location) or a padeye may also be used to attach the lead block.



DECK LAYOUT

1) When placing the additional lead blocks, try to use as few as possible to minimize line friction. Very often these blocks can be shackled to stanchion bases. If not, padeyes may be used. One alternate method is to run the furling line down the side of the cabin through Padeyes. Choose the most efficient and convenient deck layout to suit your boat.

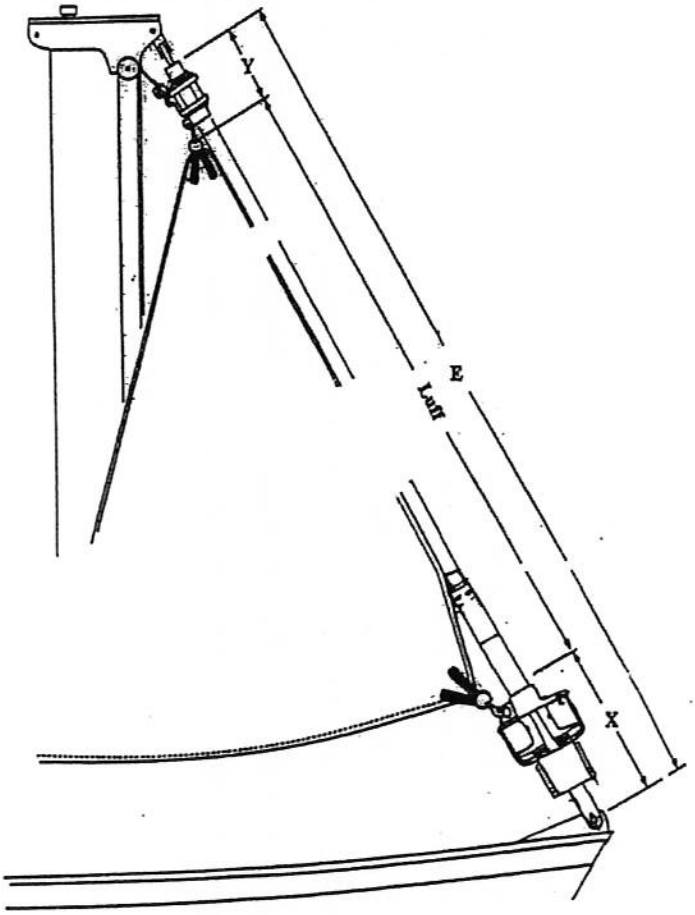
A- Drive Unit
B- Stanchion Block
C- Yacht Braid
D- Standard Cleat
E- Standard Winch
F- Optional Stand-up Block



SAILMAKER INSTRUCTIONS

1) Precisely measure the distance from the bottom of the halyard shackle (at the masthead) to the center of the stemhead pin (Dimension E).
2) From Dimension E, subtract drum and halyard swivel measurement using the table. This will give you the maximum luff dimension for your sail, when it is fully stretched.

Overall length from sheave top to stemhead pin	**E**_____
Halyard swivel deduction including shackles	**- Y**_____
Drum assembly deduction including shackle and toggle	**- X**_____
Maximum sail luff length	=_____



3) Number **5** luff tape should be used so that the sail slides easily up and down, yet doesn't pull out in heavy air.
4) Any other sailmaking considerations, such as webbing loops at the head and tack of the sail for a tighter furl and improved sail shape, UV covers, and where to terminate the luff tape, etc., you should consult your sailmaker.
5) If extreme halyard tension has been applied to alter sail shape underway, it is advisable to ease the halyard once the sail is furled to relieve the static load on the swivel bearings. This is especially true if the boat is moored for days at a time.

MAINTENANCE

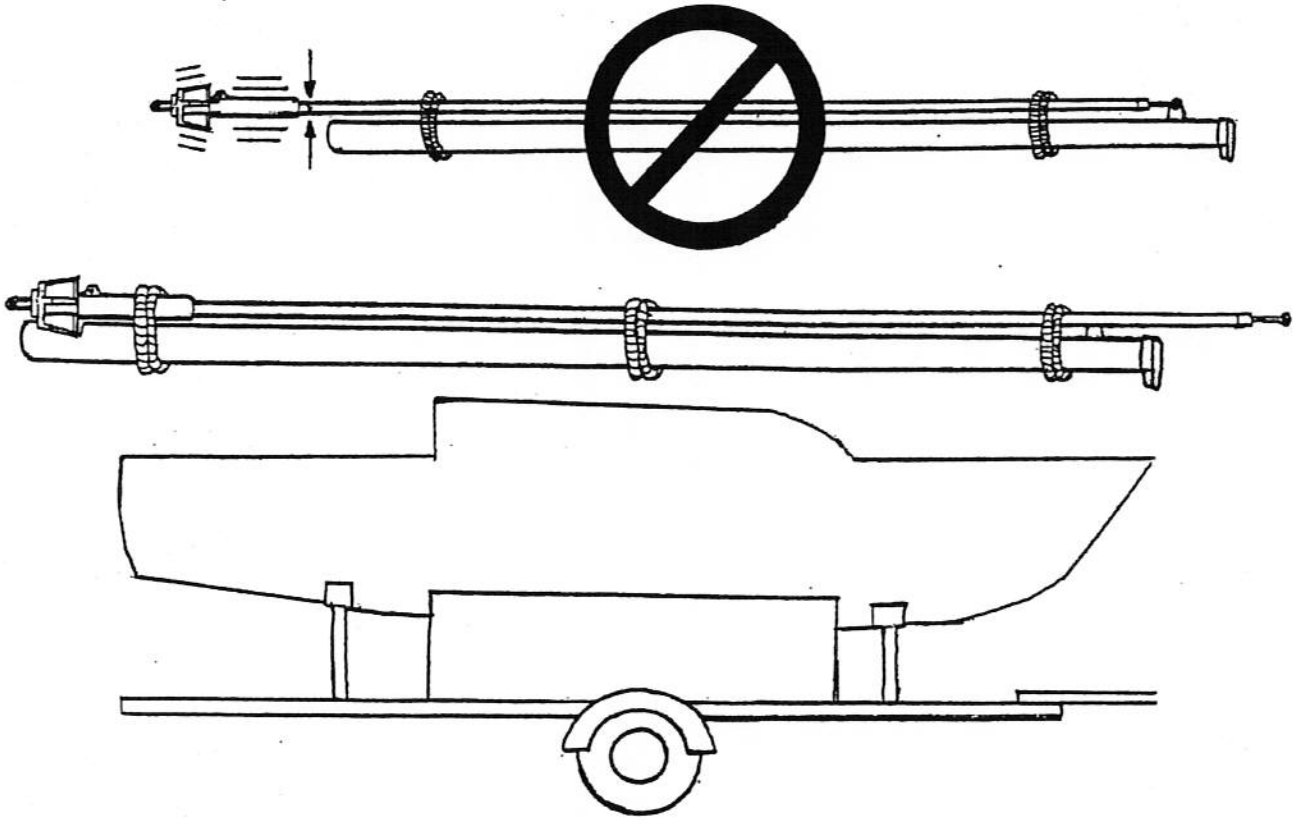
The Sea Flex is designed to be virtually maintenance-free. However, occasionally it might be necessary to rinse the halyard swivel with fresh water due to dirt/grime from trailering and/or bird guano.

The halyard swivel assembly in your Sea Flex has been equipped with Delrin balls. Delrin is self lubricating therefore it is not necessary to use any additional lubricants. In fact, many commercially available lubricants will be absorbed by the Delrin bearings making the balls enlarge, negatively affecting the operation of the system

If after extensive use or at anytime stickiness or friction become excessive, such that the bearings are not functioning acceptably, remove the entire offending assembly and return it to a Hood Yacht Systems Dealer or Distributor for servicing. At **no** time attempt to disassemble the halyard swivel assembly by yourself.

TRAILERING

When trailering your boat it is advisable to disconnect your headstay completely from your mast so you can secure the drive unit **and** extrusion **to** your mast instead of having it extended beyond your mast. Unsupported it will move up and down and damage the luff extrusion. It should be supported properly. An alternative would be to entirely remove the drive unit from the headstay/extrusion for transport. You also want to keep the headstay/extrusion as straight as possible, and again, properly supported and lashed securely.



STORAGE

When rigging or unrigging your Sea Flex for storage, any other reason, every attempt should be made to keep the headstay extrusion as straight as possible. When storing, the entire unit can be lashed to the mast or supported on a mast rack.

WINTER STORAGE

Remove the drive unit and halyard swivel and store them in a dry compartment onboard or at home. It isn't good practice to completely cover the drive unit and halyard swivel with plastic as this will trap any condensation that occurs. During re-commissioning in the spring, it is recommended to rinse both the drive unit and halyard swivel with fresh water before installation.

HOOD LIMITED WARRANTY FOR SEA FURL PRODUCTS

I) WARRANTY

Hood Yacht Systems warrants that the Hood Sea Flex and Sea Furl products will be free from defects in material and workmanship for a period of five years. That period shall commence upon the receipt of the Hood warranty card within thirty days upon receipt of the goods. Any part which proves defective in normal usage during the five 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. This shall be the buyers' exclusive remedy.

B) Except where otherwise specified, quality shall be in accordance with Hood Yacht Systems specifications.

C) The Hood Sea Flex and Sea Furl must be installed and maintained properly and used under normal conditions in the application for which they were intended.

D) This warranty does not apply to any products that were improperly installed and maintained, or subject to misuse or negligence during normal operation and storage.

E) Hood Yacht Systems shall not be responsible for shipping charges or installation labor associated with any warranty claims.

F) Terms of this limited warranty shall be one year 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.

I) Failure to obtain an owner's manual or otherwise be aware of the information contained in the owner's manual may void this warranty.

II) 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.

III) Hood is not responsible for consequential damages of any sort to the extent that such exclusion is permitted by applicable law.