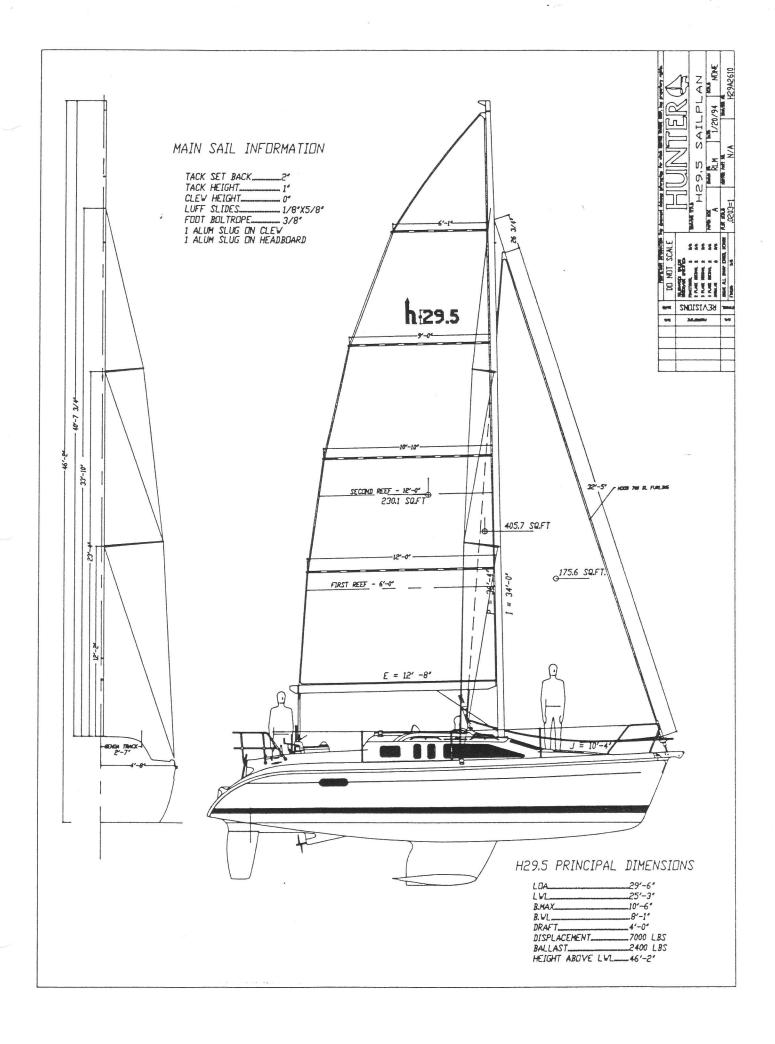
HUNTER 29.5 SAILPLAN

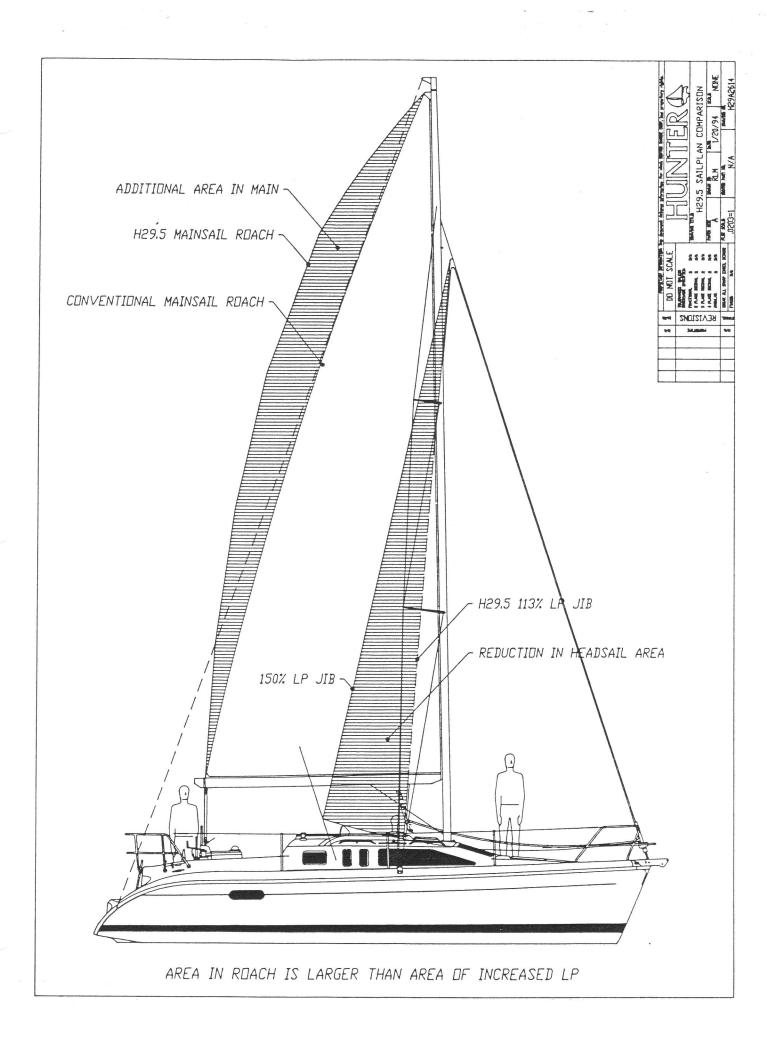
By sweeping the shrouds and spreaders aft on the Hunter 29.5 we are able to support the spar in all conditions without the need for a conventional backstay. This means we are free to maximize the mainsail roach size in order to increase sail area in a location which is far more easily controlled than adding the same or less area to the overlap of the jib.

The comparisons between these two methods of adding sail area are shown in Dwg H29-A-2614. By utilizing a shorter overlap jib we are able to sheet inside the shrouds for a very efficient 11 degree sheeting angle which allows the 29.5 to consistently tack through 60 degrees upwind.

Therefore, with the 29.5 we have created a sailplan with not only greater area than a conventional rig with a 150% LP jib, but also one which is more efficient due to the higher aspect ratio jib and tighter sheeting angles. This rig configuration is also easier to handle, with upwind tacks often being completed without the need for a winch handle.

With the majority of the sail area in the main, sudden gusts can be easily handled by "dumping" the mainsheet which is always at hand to the helmsperson. Therefore, we discourage the addition of large LP jibs to the 29.5 as being inefficient and harder to handle.





TUNING THE H29.5 FRACTIONAL RIG

THE HUNTER 29.5 FRACTIONAL RIG

The Hunter 29.5 rig utilizes swept back spreaders and shrouds to support the mast fore and aft as well as transversely. This tripod support system eliminates the need for a conventional backstay allowing the aft component of the shrouds to support the forestay loading directly. Therefore, forestay tension and forestay sag are directly controlled by upper shroud tension. For that reason it is very important that the upper shrouds are a tight as possible. It is also important in this rig configuration that the mast be tuned with a substantial amount of "pre-bend" for maximum rig stability. The following tuning instructions are designed to achieve those goals.

BEFORE STEPPING THE MAST

Install the spreaders on to their appropriate spreader bars, being careful to note which spreaders are labeled "starboard". The spreaders are custom fit to each spreader bar and are designed to fit snug against the mast wall. To ease the installation, and align the holes, it may be necessary to squeeze the mast together ever so slightly at the spreader base with a large wood clamp or a large, well padded, metal "C" clamp. Install the rigging to the spar and through the appropriate spreader tip, making sure that the tips are tight enough to still allow the rigging to slide through if pressure is applied. The intermediate shroud should be installed in the lower spreader tip before the upper shroud. This will allow the shrouds to slide through the spreader tip without bending the spreader as the rigging is tensioned on the boat. Remove all clevis and cotter pins from the turnbuckles and place the corresponding pins close by the appropriate chainplate and forestay fitting. Open all turnbuckles to the maximum, making sure that there is still enough thread gripping that the turnbuckles don't come apart. Install the Windex instrument, VHF antenna and masthead light and any additional wind instruments on the masthead. The Windex mounts on an aluminum bar extending aft to allow it to clear the VHF antenna. If not already attached to the mast head, this bar may be in the "loose gear" kit. Also make sure that the interior cover plate inside the boat on the overhead liner at the top of the mast compression post is removed to allow access to the mast wiring. It is always wise to pad and tape the tips of the spreaders to prevent them from chafing the mainsail when the main is eased. The spar should be hoisted from a location just below the upper spreaders. If not already done, run the halyards in the spar using the messenger lines installed. Install the reefing lines, outhaul & mainsheet in the boom.

TUNING THE 29.5 FRACTIONAL RIG (CONT)

STEPPING THE MAST

During stepping make sure that the electrical wiring for the VHF and mast lights is pulled through the hole in the deck on top of the mast step for connection below deck. After stepping your mast, attach the lower shrouds to the forward of the three holes in each chainplate, the intermediate shrouds to the middle holes and the upper shrouds to the aft holes. The turnbuckles should be installed with the cotter pins located inboard. With the turnbuckles still eased all the way, attach the forestay to the stem head casting using the two link plates and 5/8" diameter pin supplied for that purpose. A jib halyard run forward to the "U" bolt in the anchor locker may have to be used to achieve enough slack to connect the forestay. Tension the shrouds to remove most of the slack, making sure that the port and starboard turnbuckles for each shroud pair (uppers, intermediates & lowers) are tensioned uniformly. When all the standing rigging is attached and the slack removed unrig the lifting hoist. Run the halyards from their exits in the spar through the appropriate block on the mast step, through the deflector blocks and aft through the rope clutches, as outlined on the Running Rigging Drawing. Rig the Boom to the mast and attach the mainsheet & vang.

PLUMBING THE MAST & SETTING THE RAKE

To center the mast athwartships, start with only slight tension on the upper and lower shrouds. Check that the mast is centered in the boat by measuring from the masthead to the chainplates with a steel tape measure hoisted completely up the main halyard. Adjust the upper shrouds, easing one and tightening the other, until the measurements port and starboard are exactly the same. If a steel tape isn't available, the main halyard can also be used for this purpose being careful that equal tensions are applied each side. Once the mast is plumb athwartships, check the amount of rake or aft angle on the mast by hanging a weight from the shackle on the main halyard and adjusting the halyard position so the weight hangs just above the boom. On a calm day, with nobody on the boat, this weight should hang 12 to 16 inches aft of the mast. Adjust the main shrouds uniformly, easing or tightening the same number of turns each side, and the forestay to achieve the proper amount of rake.

TUNING THE 29.5 FRACTIONAL RIG (CONT)

INITIAL TUNING

TIGHTEN THE UPPER SHROUDS

With the mast plumb athwartships and the proper amount of rake achieved, tension both uppers shrouds equally, counting turnbuckle revolutions as you go. Tighten uppers until you have approximately six inches (one mast chord) of "prebend" fore and aft in the mast. This pre-bend is created because the swept spreaders will push the middle part of the mast forward as you increase tension of the uppers. The amount of pre-bend can be measured by stretching the main halyard along the back edge of the spar and sighting the mount of bend in comparison to the straight line of the halyard. If more than 6" of prebend occurs tension the lowers and intermediates enough to limit prebend to that amount.

TIGHTEN THE INTERMEDIATE SHROUDS

Tighten the intermediate shrouds evenly, making sure the mast remains straight athwartship. This is done by sighting up the luff groove and looking for any side-to-side bend. If a bend or bow to one side exists, ease the intermediate on the side of the bend and tension the intermediate on the hollow side of the bend until the mast is straight transversely. The Intermediate Shrouds, at this stage, should be almost as tight as the uppers. Tightening the intermediates will remove some of the prebend, but at least 4" of prebend should be allowed to remain.

TIGHTEN THE LOWER SHROUDS

In the same manner as the intermediates were tightened, tighten and adjust the lower shrouds until the mast is straight amidships and has 4" of uniform prebend fore and aft.

TIGHTEN THE FORE STAY

Lift the furling drum and tension the forestay turnbuckle until it is 1/3 to 1/2 closed.

FINAL TUNING

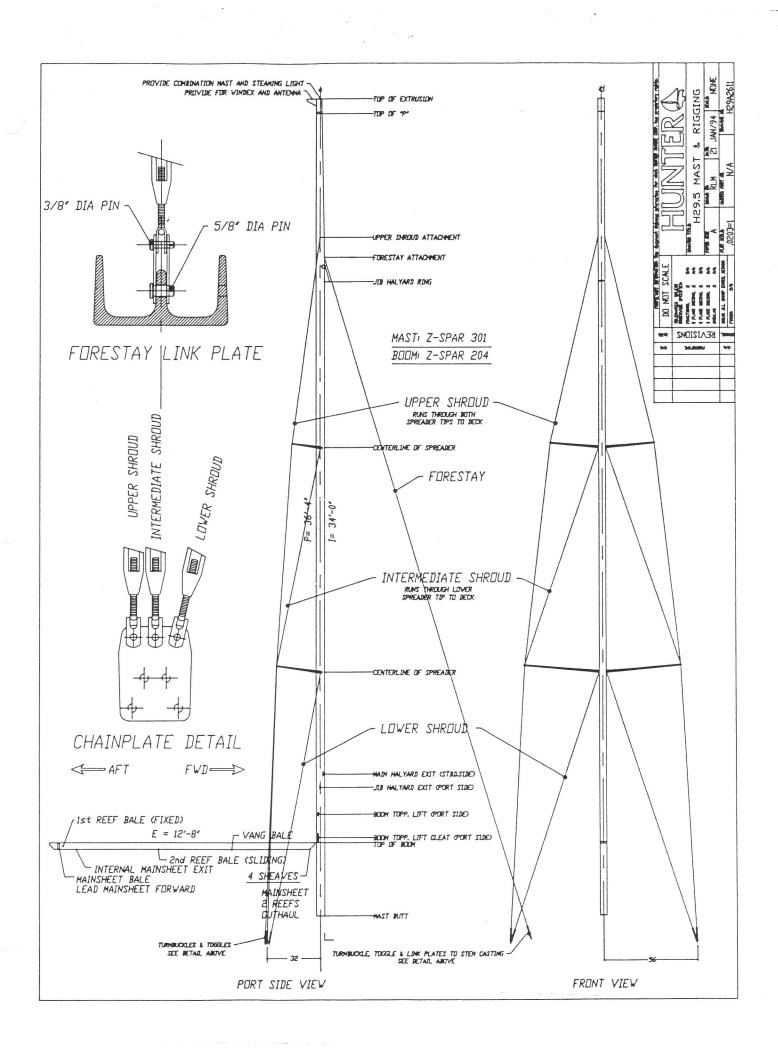
After the rigging is adjusted as above and the mast is straight amidships and has the necessary 4" of pre-bend, continue tensioning the upper shroud turnbuckles uniformly each side (counting & matching the same number of half turns) with a wrench and a screw driver until no more tension can be applied without exceptional effort. Do not use any artificial means, such as pipe extensions on the wrench and screw driver, to achieve additional tension. Lift the furling drum again and tension the forestay an additional four to six turns.

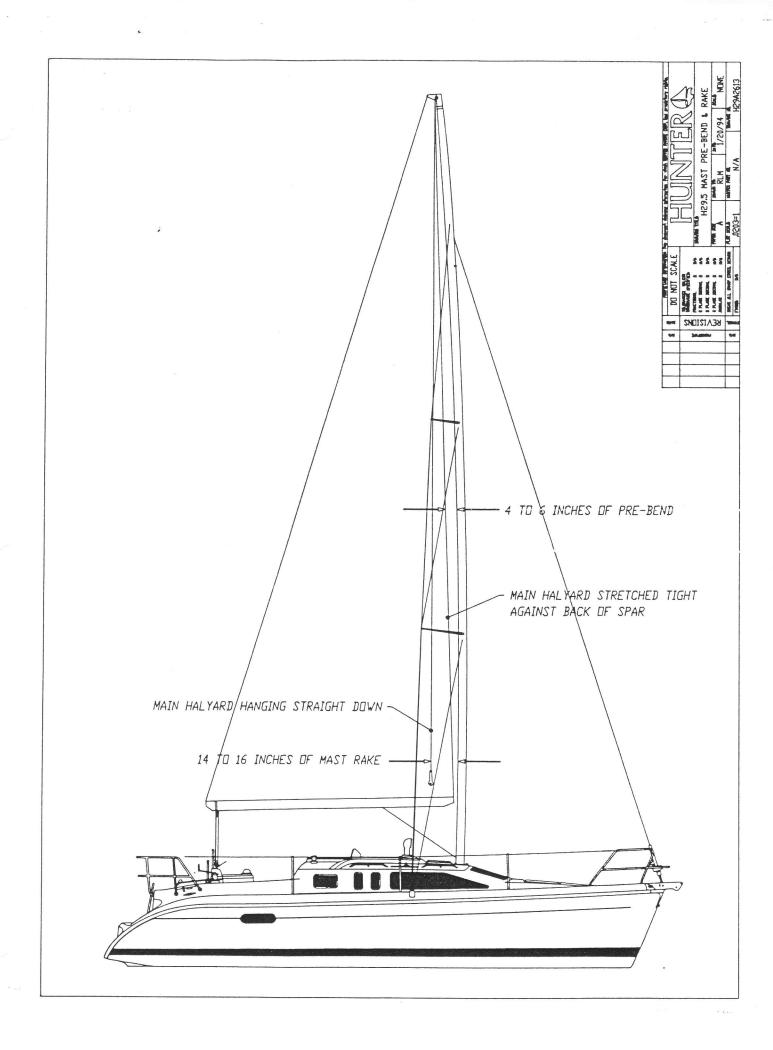
TUNING THE 29.5 FRACTIONAL RIG (CONT)

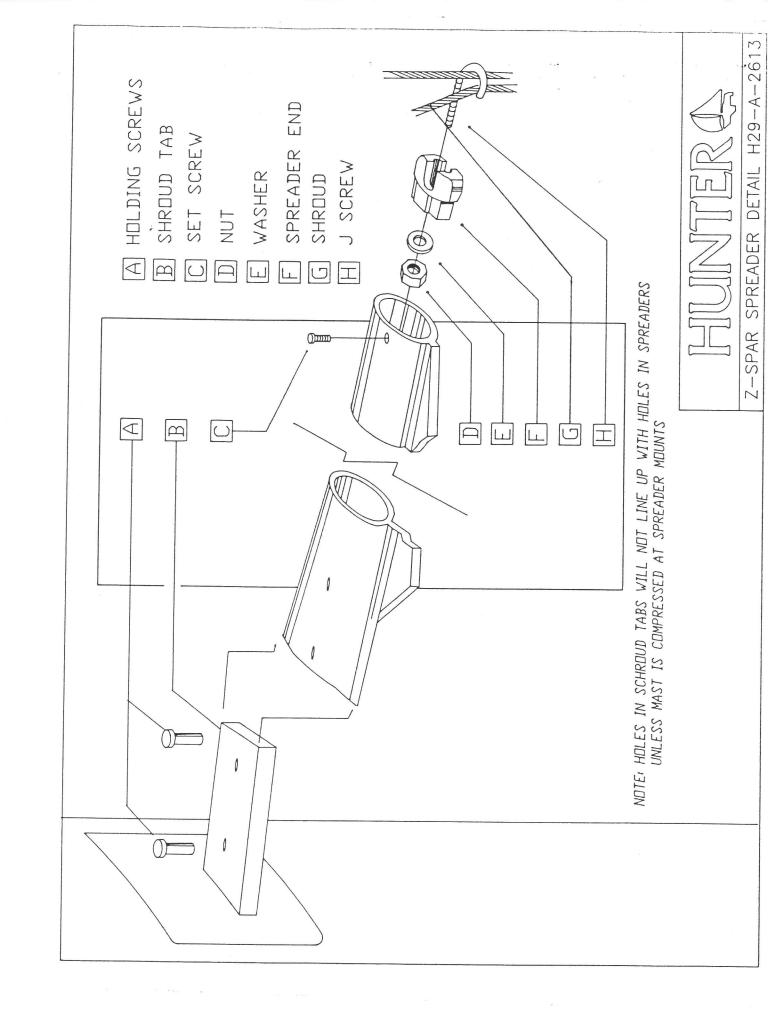
CHECKING THE RIG'S TUNING

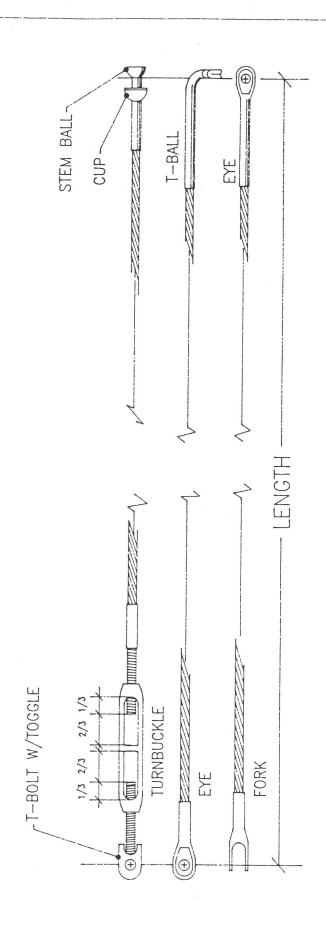
Check the mast tuning by sailing in medium winds (10-12 knots). Sometimes fine tuning the intermediate and lower shrouds is necessary when the spar is loaded in sailing conditions. Sail on both tacks, sighting up the luff groove to check athwartship straightness. When sailing with full main and jib all the leeward rigging should remain taught. Only with a double reef in the main should the leeward lower and intermediate shrouds be slack. This is caused by the aft component of the main sail headboard loading pulling the pre-bend out of the spar.

When mast tuning is complete, install cotter pins in all turnbuckles and tape over sharp edges of the cotter pins with chafe tape.

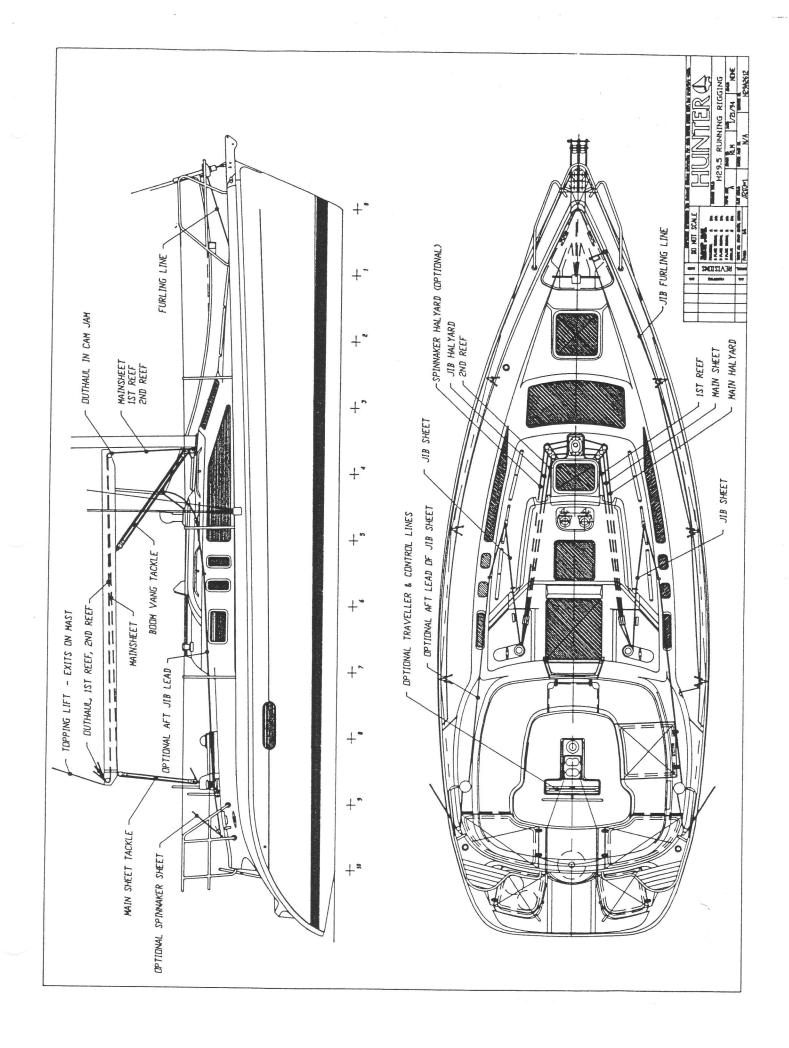


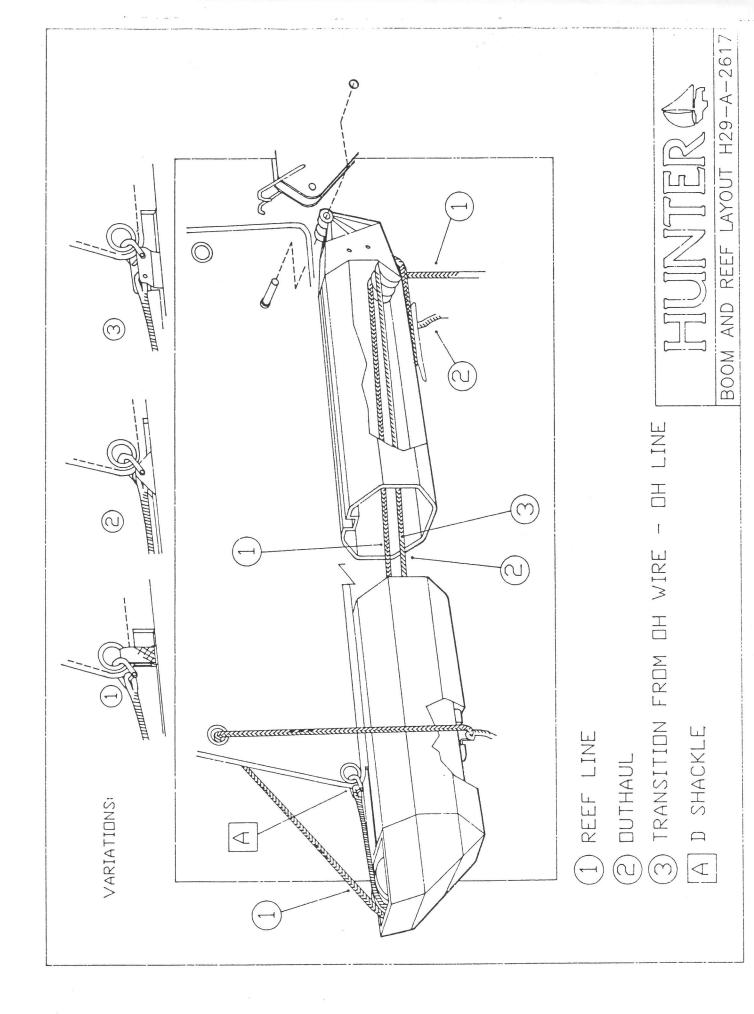






RIGGING LENGTH STANDARDS H29-A-2632





HUNTER 29.5 RIGGING SPECIFICATIONS

STANDING RIGGING

FITTINGS

<u>Description</u>	Wire Size	Upper End	Lower End*	Overall Length .
Forestay	7/32"	stemball eye & toggle	7-12-12 w/toggle & link plates	35' -7 1/2"
Uppers	1/4"	stemball w/shell	8-12-12 w/toggle	35' -8 3/4"
Intermediates	3/16"	stemball w/shell	6-12-12 w/toggle	25' -3"
Lowers	1/4"	stemball w/shell	8-12-12 w/toggle	14' -3 1/4"

All wire is 1 x 19 type 316 stainless steel.

Wire size/body size/pin diameter in 32nd's of an inch.

Example: 7-12-12 is a turnbuckle that accepts a 7/32" wire, has a 3/8" (12/32") thread diameter in the body, and uses a 3/8" (12/32") pin.

RUNNING RIGGING (STANDARD)

<u>Line</u>	Color Code	<u>Size</u>	Attachments	Overall Length
Main Halyard*	Black	3/8"	Headboard shackle	93'
Jib Halyard*	Blue	3/8"	Swivel snapshackle	82'
Main Sheet	White	3/8"	B.B.E. **	80'
Jib Sheets (one piece)	White	7/16"	B.B.E.	56'
Outhaul	White	5/16"	B.B.E.	27'
1st. Reef	Green	3/8"	B.B.E.	44'
2nd. Reef	Red	3/8"	B.B.E.	56'
Furling Line	White	1/4"	B.B.E.	35'
Topping Lift	White	1/4"	B.B.E.	78'
Anchor Line	White	3/8"	Shackle	100'
Boom Vang	White	3/8"	Eye splice	25'

^{*} XLS low stretch line

All other lines low stretch Dacron except anchor line which is nylon.

^{* &}quot;X-X-X" represents the turnbuckle size as follows:

^{**} See H29-A-2632 "Rigging Length Standards" for details

^{**} Burned Both Ends.

HUNTER 29.5 RIGGING SPECIFICATIONS

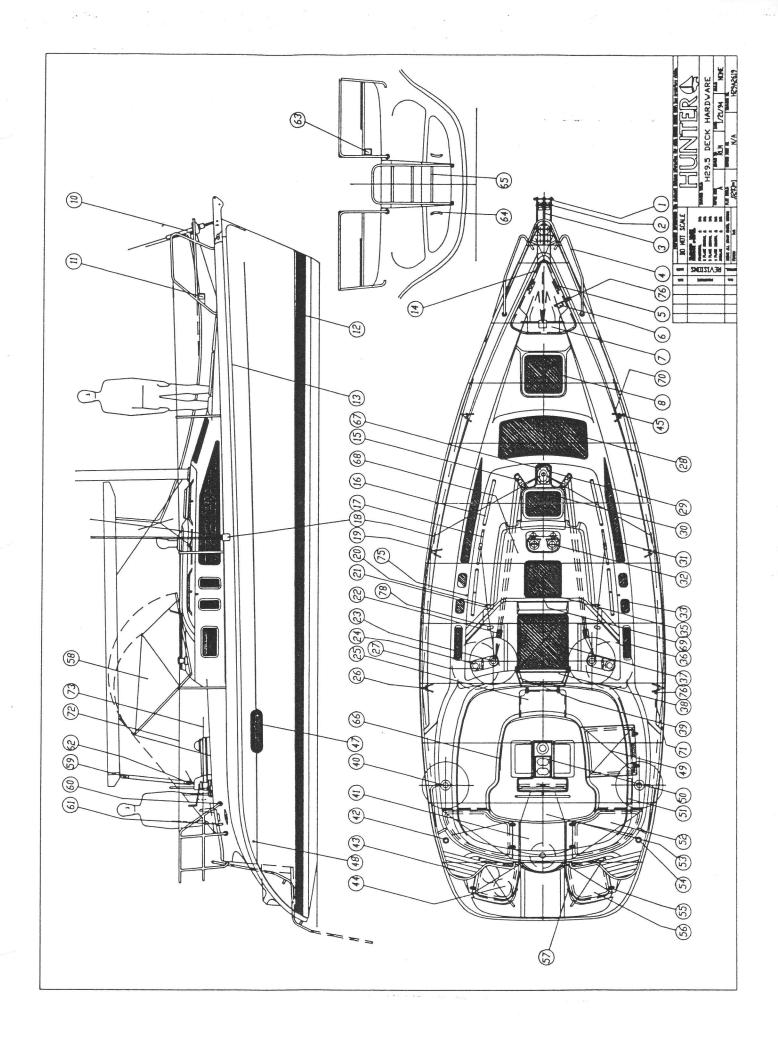
RUNNING RIGGING (OPTIONAL)

Line	Color Code	<u>Size</u>	Attachments	Overall Length
Traveller Control Line (2	2) White	5/16"	eye splice	4'-0"
Spinnaker Halyard*	White	3/8"	swivel snap	86'-0"
Spinnaker Sheets (2)*	White	3/8"	swivel snap shackle	55'-0"
Spinn. Tack Line (Cruising) *	White	3/8"	snap shackle each end	4'-0"
Spinn. Tack Line (Racing) *	White	3/8"	swivel snap shackle	55'-0"
Spinn. Bobstay (Racing) * &**	White	3/8"	BBE ***	5'-0"
Pole Launch Line (Racing) *	White	3/8"	BBE	35'-0"
Pole Retraction Shock Co (Racing) *	ord	1/2"	BBE	12'-0"

^{*} Dealer or Customer Supplied

^{**} Spectra

^{***} Burned Both Ends



HUNTER 29.5 DECK HARDWARE LAYOUT

* OPTIONAL EQUIPMENT

ID	QTY	PART	MFG.	MEC #	HINTED#
10	VII	TARI	MrG.	MFG.#	HUNTER#
	1				
1	1	DROP NOSE PIN	KENS WELDING		HW2237
2	1	BOW ROLLER W/PIN	KENS WELDING		HW2237
3	1	ALUM BOW CASTING	CUSTOM		HW1601
4	1	BOW RAIL	SOUTH COAST		HW2347
5	2	FWD 8" ALUM CLEATS	YS		HW0975
6	2	ANCHOR LOCKER LATCH	SOUTH COAST		HW4471
7	1	FRP ANCHOR LID	HUNTER		GA270010
8	1	FORWARD HATCH	BOMAR		GCO90010
10	1	FURLING GEAR	HOOD		R10427
11	1	SIDE LIGHTS	AQUA SIGNAL		EL0365/EL0366
12	1	MOLDED BOOT TOP	HUNTER		
13	1	RUBRAIL	HUNTER		HW2453
14	1	WATER DECK FILL			PL1130
15	1	DECK ORGANIZER			HW0170
16	1	HANDRAILS	HUNTER		HW2445
17	1	JIB TRACK			HW0193
18	2	CHAINPLATES & BACKUP	KENS WELDING		HW1604
19	IPR	MIDSHIP STANCHIONS	SOUTHCOAST		HW2064
20	2	JIB SHEET FAIRLEADS			HW1072
21*	1	DODGER EXTRUSION			
22	2	ROPE CLUTCH	GAURHAUR	TRI-3/8"	HW1282
23	2	WINCHES	LEWMAR	#16 ST ALUM	HW2518
24*	2	WINCHES	LEWMAR	#16 ST ALUM	HW2518
25	1	ROPE LOCKER LID	HUNTER		GA270042
26	1PR	AFT STANCHIONS	SOUTH COAST		HW2063
27	2	SHEET CLEATS	YS		HW0980
28	1	3/8" ACRYLIC WINDSHIELD	HUNTER		PX0151
29	1	MAST STEP	Z-SPAR		RI0509
30	1	MID-DECK HATCH	BOMAR	1040-10A	HW0120
31	IPR	FWD 1/4" ACRYLIC SIDE POR			PX0152/153
32	2	3" DORADE VENTS	NICRO	NF 10923	HW4857
33	4	OPENING PORTS	BOMAR		HW0052
35	1	UPPER SKYLIGHT ACRYLIC	HUNTER		HW2244
36	2	OPENING PORTS	BOMAR	7X15 ID	HW0035
37	1	COMPANIONWAY ACRYLIC	HUNTER		PX0043/44
38	1	3/8" ACRYLIC PIN BOARDS	HUNTER		HW5284/WT00110
39	1PR	PIN BOARD TRACKS	HUNTER		WT0131
40*	IPR	SPINNAKER WINCHES	LEWMAR -	#30 ST	HW2519
41		FRP HELM SEAT	HUNTER		GA270190
42	1	FUEL DECK FILL			PL0520
43	2	STERN RAIL SEAT	HUNTER		GFC8XV02/03
44*	1	PROPANE LOCKER	HUNTER FRP		GA270205
45	1PR	FWD STANCHIONS	SOUTH COAST		HW2065
47	2	FIXED 3/8" LEXAN PORTS	HUNTER		PX0144
48	2	TANK VENTS (P&S)			PL0520
49	1	FRP EURO SEAT & BUMPERS	HUNTER		GA270070
50	1	STEERING CONSOLE	HUNTER		GA270105
51	1	ENGINE PANEL	YANMAR		EL0111

HUNTER 29.5 DECK HARDWARE LAYOUT - Continued

ID	QTY	PART	MFG.	MFG.#	HUNTER#
52	1PR	FRP GULL WING LOCKERS	IHINTED		
53	1		HUNTER		GA270180/185
54	1	FRP QUAD COVER	HUNTER		GA270085
55	12	WASTE TANK DECK FITTING	j		PL1140
56	12 1PR	COCKPIT LOCKER HINGES			HW4250
57		SWIM SEATS	HUNTER		GA270195
58*	2	SWIM SEAT LATCHES RUBBI	ER TYPE		HW4358
59	1	DODGER			
	1	UPPER MAINSHEET BLOCK		SCH. 05-43	HW0281
60	2	AFT MOORING CLEATS 8" AL	.UM		HW0975
61	2	GULL WING LATCHES			HW4358
62	1	LOWER MAINSHEET BLOCK		SCH. 22-65	HW0282
63	1	STERN LIGHT	AQUA SIGNAL		EL0390
64	2	SWIM HANDLES	SOUTH COAST		HW2404
65	1	SWIM LADDER	SOUTH COAST		HW2160
66	1	COCKPIT PORT	BOMAR	4X12	HW0037
67	1	MAST PLATE & COMP. POST	KENS WELDING		RI0578
68	1	FRP SEA HOOD	HUNTER		GC030200
69	1	LOWER SKYLIGHT ACRYLIC	HUNTER		PX044
70	2	FURLING FAIRLEADS	SCHAEFER	SCH. 78-02	HW0268
71	1	FURLING CLEAT	SCHAEFER	SCH. 60-14 4"	HW0985
72	2	UPPER LIFE LINES	SEACO SOUTH		RI1234
73	2	LOWER LIFE LINES	SEACO SOUTH		
75*	2	AFT SHEET LEAD BULLSEYES			
76	2	FURLING BLOCKS	SCHAEFER	SCH. 200-32	HW0269
77	1	STERN RAIL	SOUTH COAST	3 3 2 2 3 2 2	HW2255
78	2	CLAM JAMS	NICRO	NF-10557	HW
79	1	BOOM VANG	SCHAEFER	1.1 10001	***

^{*} OPTIONAL EQUIPMENT - SUPPLIED BY FACTORY, DEALER OR CUSTOMER

HUNTER 29.5 SPINNAKER OPTIONS

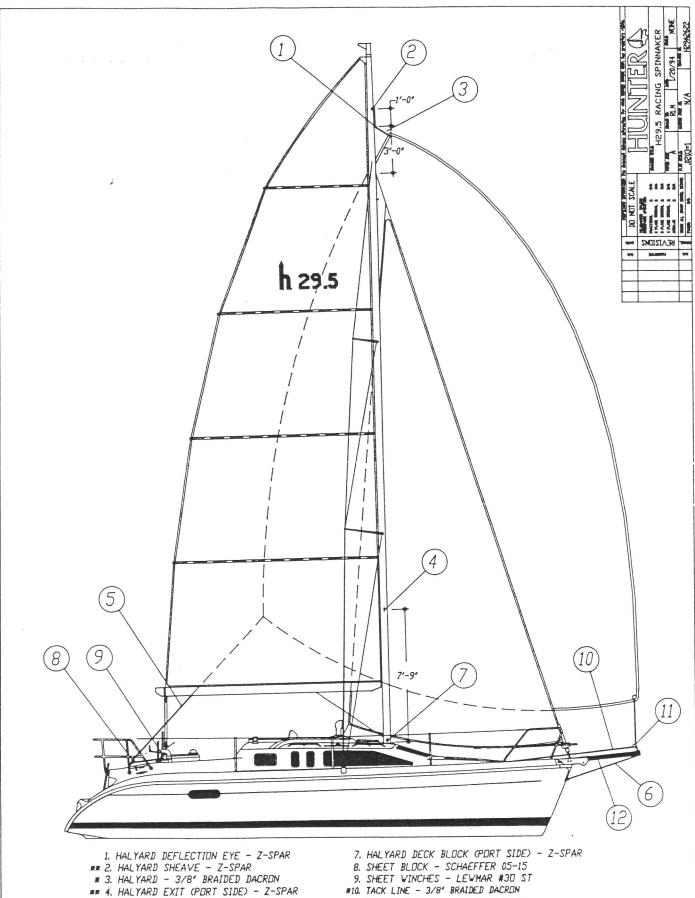
The swept back shrouds and spreaders prevent the boom from being eased as much down wind as on more conventional rigs. Therefore, the 29.5 should not sail directly downwind, but should instead "tack" downwind by gybing from broad reach to broad reach. This will also help to prevent the jib from being blanketed by the large main.

"Tacking" downwind is also much safer, since the boat is more stable and has much less chance of being caught "by the lee" and being exposed to an accidental gybe or broach.

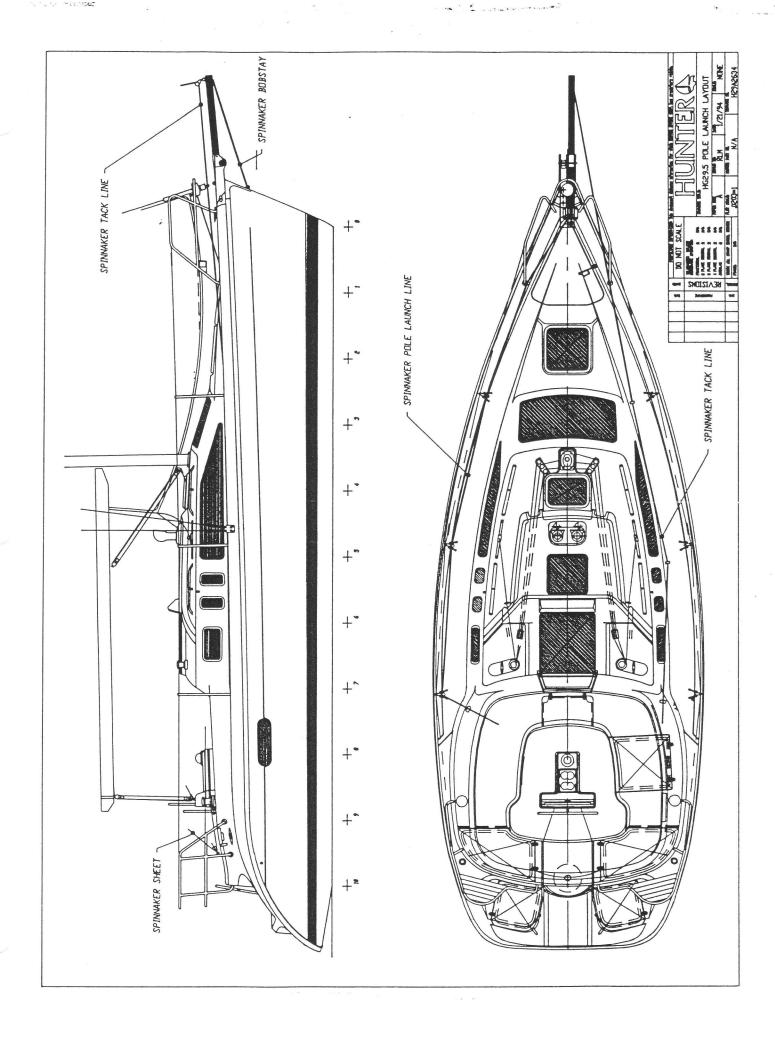
This need to "tack" downwind makes the 29.5 ideally suited to the use of the new asymmetrical spinnakers. These spinnakers are flown like large jibs and do not require conventional spinnaker poles with their inherent and complicated topping lifts, foreguys, after guys, and resultant high mast loadings. For these reasons, we do not recommend the use of a conventional spinnaker and pole without first consulting Hunter Marine.

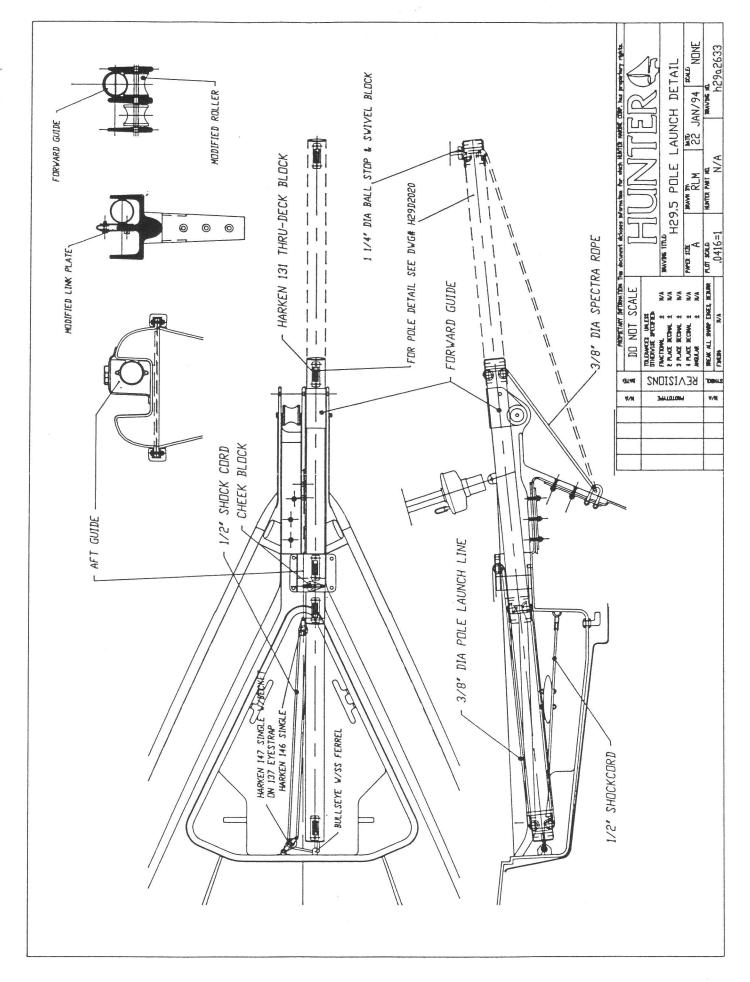
The asymmetrical spinnaker on the 29.5 can be rigged in a "Cruising" configuration as illustrated in Dwg. #H29-A-2620 where the spinnaker tack is flown from a tack line secured to the "U" bolt on the bow and passing over the bow roller. In this configuration, at the majority of sailing angles, the jib must be furled to allow clear air flow to the spinnaker. If not, the spinnaker will be more difficult to fly. The weather sheet should be lead outside the luff of the spinnaker so the sail will fly downwind when gybing. To ease handing of the sail a "snuffer" or "spinnaker sally" can be used. Talk to your local sailmaker about the best system for your needs and the optimum size of spinnaker. The cutout details for the halyard hardware is shown on dwg#H29-A-2625.

A more performance oriented option is illustrated in dwgs H29-A-2622, 23 & 24 showing the "Racing" option incorporating a retractable aluminum spinnaker pole housed in the anchor locker and running on an anchor roller. Obviously to utilize this option the anchor and rode must be removed from the locker, although the port roller is still available for anchoring.

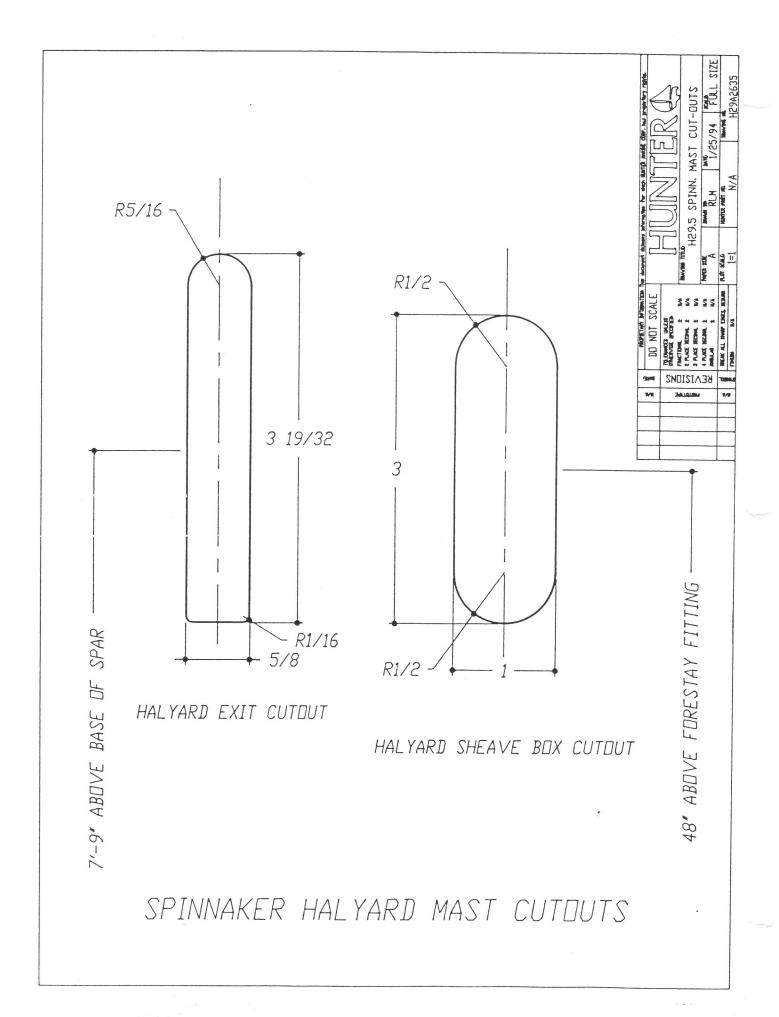


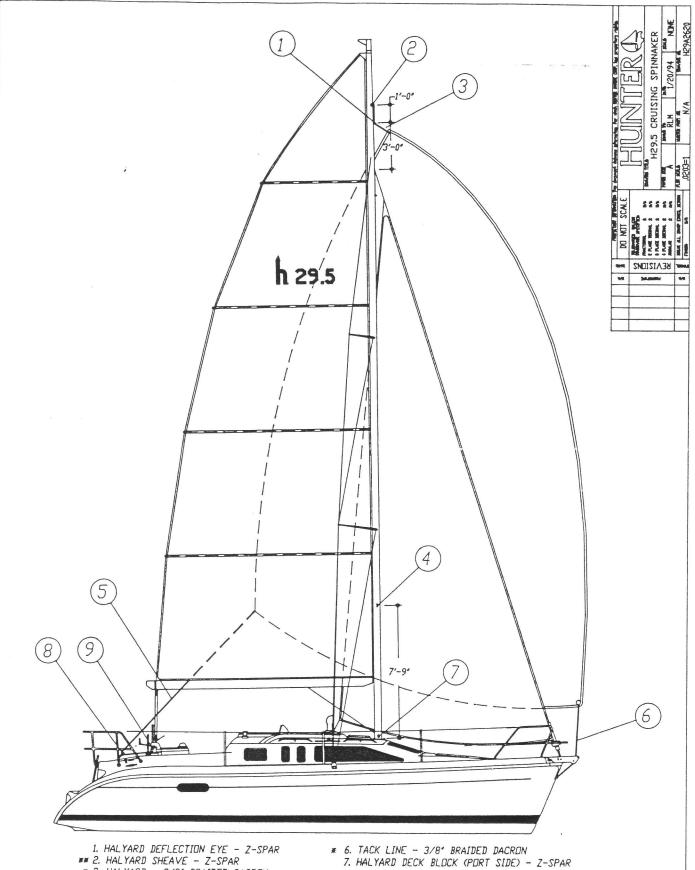
- ## 4. HALYARD EXIT (PORT SIDE) Z-SPAR # 5. SHEETS (2) 3/8" BRAIDED DACRON
- # 6. BOB STAY 3/8" SPECTRA
- 11. TACK LINE BLOCK SCHAEFER 05-15
- 12. RETRACTABLE SPINN POLE SEE H29A2623
- * SEE HUNTER 29.5 RIGGING SPECIFICATIONS FOR MORE DETAILS
- ** SEE INSTALLATION INSTRUCTIONS -H29A2625





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- * 3. HALYARD 3/8" BRAIDED DACRON
- ** 4. HALYARD EXIT (PORT SIDE) Z-SPAR
- # 5. SHEETS (2) 3/8" BRAIDED DACRON
- 8. SHEET BLOCK SCHAEFFER 05-15 9. SHEET WINCHES LEWMAR #30 ST
- # SEE HUNTER 29.5 RIGGING SPECIFICATIONS FOR MORE DETAILS
- ** SEE INSTALLATION INSTRUCTIONS