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SOME IDEAS FOR TOWNIE GO-FASTS

1. Introduction

The basic Townie, as sold by Pert Lowell, carries equipment that is basically suitable for day sailing, but is hardly adequate for active racing. As a result of fitting out a few Townies with additional equipment aimed at easier sailing in competition, the authors believe that their boats are significantly faster, on average, than ones carrying only the basic equipment. Principally, we believe that this is due to easier handling rather than increase in boat speed, although some of the suggestions made in the following paragraphs are specifically aimed at increasing boat speed.

The following paragraphs describe these additional fittings, and, where appropriate, quote the hardware that can be utilized. The reference here is the 1970 Lands' End Catalog, but the majority of items are in stock at Card Marine, Woburn, Mass.

2. Main Sheet Cam-Cleat

It appears universally accepted that the snatch-block supplied by Pert is not adequate, or possibly even safe, for competitive racing. Some form of cam cleat is desirable and this should be mounted in the same position as used for the snatch block. A

good set-up is the Star Marine #40153, #8 on page 115 of the catalog, one of which has been in use on #601 for three seasons and still performs well. Card stocks this cleat and it costs about \$22.

### 3. Traveller

The stainless steel traveller supplied by Pert does not allow the degree of outboard travel required to offset high wind conditions and most people have replaced it with a rope traveller. This can take the form of a rope, dead ended at one end to a ring fastened to the deck at the sheer, with the other end through a fairlead at the opposite location to a simple cleat on the transom (See Figure 1).

Another rig, which allows control of the sideways motion, is to attach the main block permanently to a loop of rope which passes through two swivel blocks, typically Schaeffer Marine #30626, page 170, \$5 each, mounted on the deck at the sheer. See Figure 2. This loop has a tail attached at the center and the tail is adjustable in length to allow any degree of lateral movement from zero to half the width of the transom. The tail can be cleated at the transom or brought forward to the floor or the center-board trunk. The total cost of either of these rigs will not exceed \$12-14 and they appear to be well worth the effort.

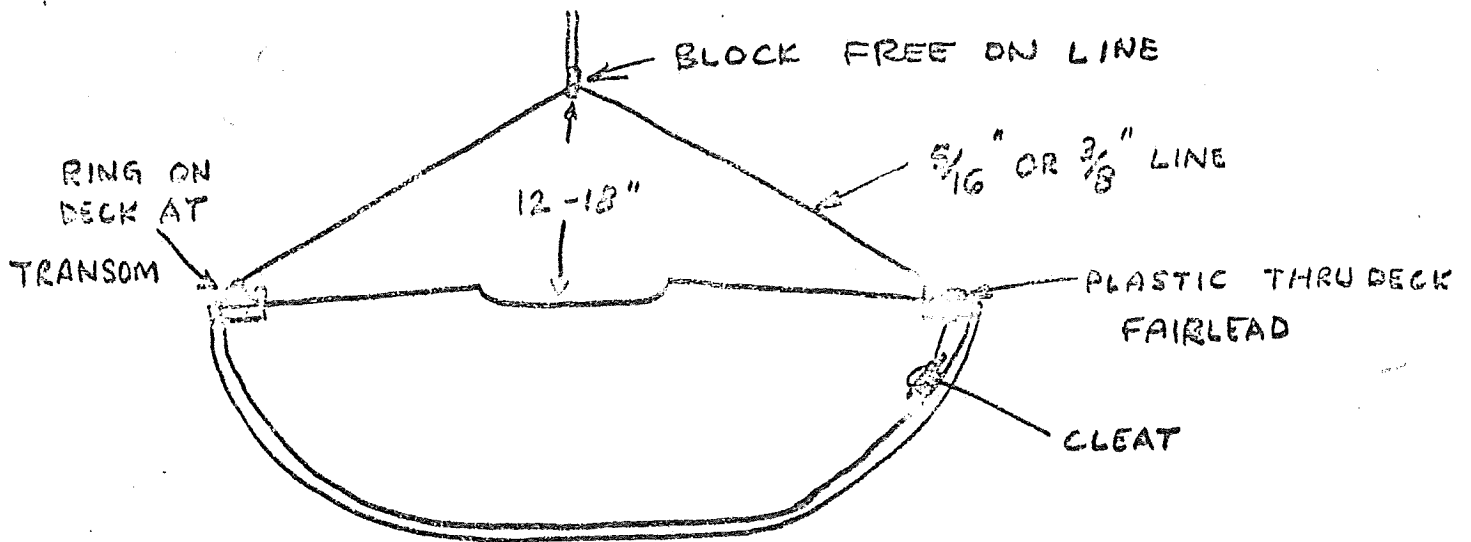


FIG 1 SIMPLE ROPE TRAVELLER

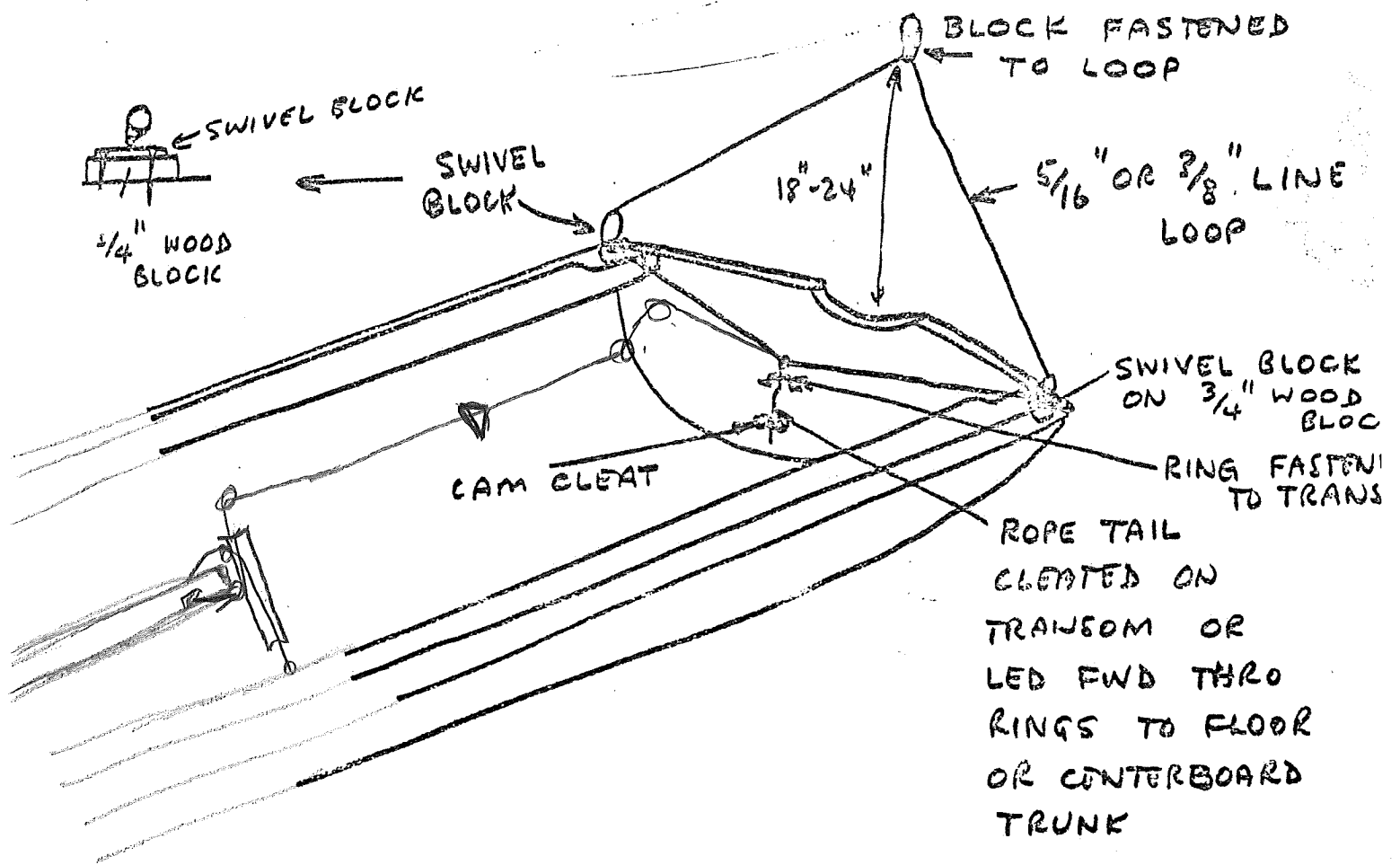


FIG 2 LOOP TRAVELLER

4. Outhaul

The outhaul should be capable of easy adjustment underway to cover wind strength changes or to slacken the main on a reach or run. At the very minimum the cleat supplied by Pert should be moved forward to about 2-3 feet aft of the mast so that it can be reached when beating. A more complex arrangement, but one which has the advantage of easy adjustment plus instantaneous release and retightening is shown in Figure 3. The clam cleat with fairlead is a standard item and costs \$1.40, item #25432, page 148. The block is \$1.95, item #42266 on the same page and the lever is a Hyfield by Star, #40338 SM 274, priced at \$6.50 on page 131.

One of the beauties of this rig is that the lever returns the outhaul to the same position as before the reach or run, eliminating guesswork on the crew's behalf. With the lever tight, the line to the clam cleat is adjusted for the best conditions and the lever released for reaches and runs.

5. Cunningham Downhaul

On a full-cut sail, it is often desirable to take out extra fullness by means of a Cunningham rig. In its simplest form this is a line dead-ended to the boom, passing up through a grommet in the luff of the sail and down to a cleat on the mast. See Figure 4 or page 148 of the catalog.

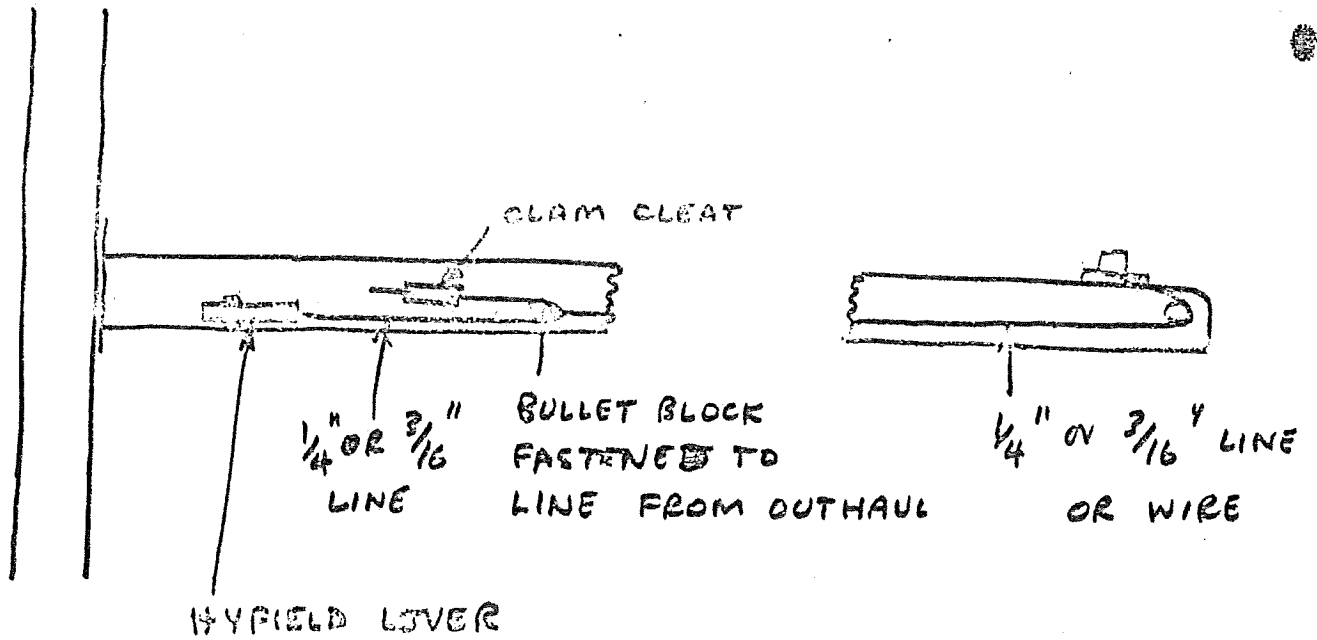


FIG 3 LEVER ADJUSTED OUTHAUL

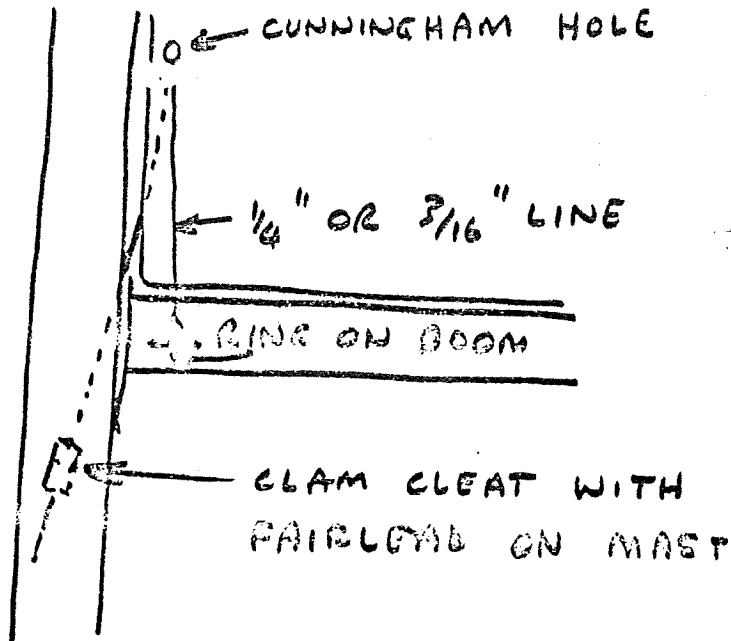


FIG 4 SIMPLE CUNNINGHAM DOWNHAUL

An interesting combination of the Cunningham and the outhaul rig described earlier is shown in Figure 5 where the lever slackens both together. Blocks and cleats suitable for this rig are shown on page 148.

The cost of the most sophisticated of these arrangements will not exceed \$5-6.

6. Halyards

The halyard arrangement on the basic boat is bad from two points of view; it is almost impossible to get the jib tight enough and impossible to adjust easily when under way. The simplest thing to do is to remove the cleats from the false deck and screw them on either side of the mast about 9"-12" above the deck. Another good idea is to always hoist the jib first which allows the maximum tension to be attained in the jib wire before the weight and tension of the main is applied.

7. Jib leads

This is one item on which there is little agreement but one thing seems clear, fairleads through the splash rail are a must; Card's stock a white plastic one, priced about 75¢ each which are ideal. The main variable now is the position of the fairlead on the deck, both fore and aft and in and out.

Based on our experience, fore and aft position is the first to be determined, then in and out. The simplest way is to buy

a pair of tracks with movable fairleads; a perfectly good arrangement is the Nicro/Fico track and fairlead, #20 on page 201. 16" of track cost \$3 each and the fairlead \$4.95 each or about \$16 complete. Another, even cheaper, arrangement which is used on #21 and #937 is available at Card's.

These should be mounted on a line angled to the centerline depending on the cut of the jib as shown in Figure 6. Typically Cressy jibs seem best on about the 15° line, whereas the special Dyson jibs can be brought in as far as 10-12½°. A simple measurement for determining 10, 12½, 15° is shown in Figure 7. Once the jib is set up through this fairlead, the optimum fore and aft position can be determined by moving it until the entire leading edge of the jib luffs at the same time when heading up. Once this position is determined, the optimum in and out position can be found by remounting the slide at a constant distance from the stem as shown in Figure 8 and experimenting with various positions. One of the peculiarities of the Townie is that it does not seem to be as sensitive to in and out jib location as a high performance boat, possibly due to the small jib/main area ratio. Jib sheet cleats can be mounted on the center board trunk and can be of infinite variety, the simplest being a jam cleat, the most complex a snubbing winch and cam cleats; take your pick!

#### 8. Tiller and Hiking Extension

A Townie must be sailed as flat as possible to avoid weather helm and this means both the skipper and the crew must hike

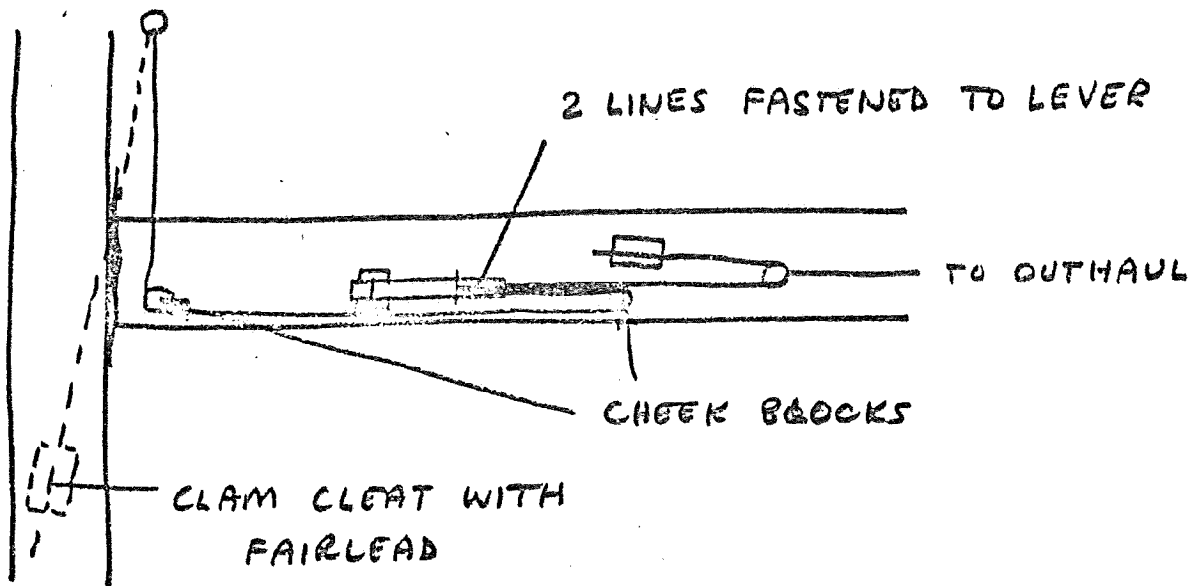


FIG 5 COMBINED OUTHAUL & DOWNHAUL  
ADJUSTER

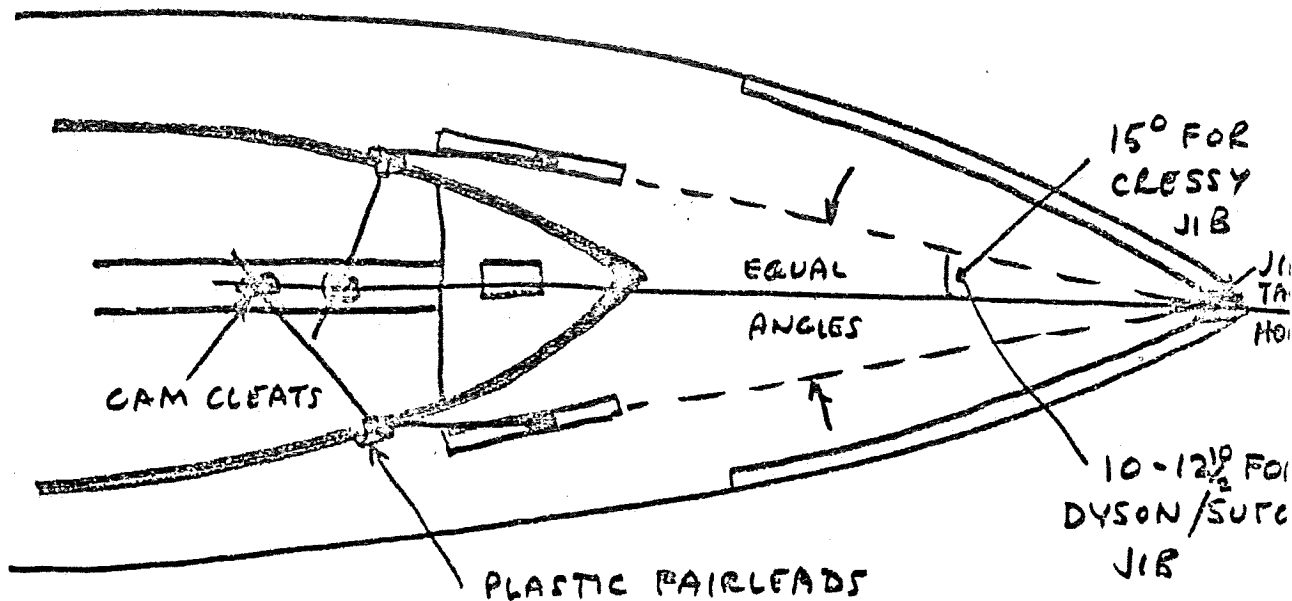


FIG. 6 ARRANGEMENT OF JIB SHEET SLIDES



out. This also means that a good strong tiller extension is a must. The Fico device #6, #42304, price \$7.75 on page 176 is ideal, but for those who want to make their own handle, a good fitting is #10 on the same page, Fice #42020, price \$3.90. A simple bolt through the tiller extension does not seem to give necessary freedom for tacking.

A small point which seems to be omitted by many Townie owners, the tiller should be locked into the rudder so that it can't come out and let the skipper go overboard. A simple hole drilled through the rudder cheeks and tiller can be used with a bolt, a peg or even a length of line taken round the back of the rudder and knotted.

#### 9. Hiking Straps

As mentioned above the hiking out is essential if the boat is to be kept flat in a wind. The class rules allow one slat of the seat to be removed on each side to provide space for the skipper's feet. Experience indicates that this method is uncomfortable and not very effective. A better arrangement seems to be an athwartships strap fastened to the seat supports as shown in Figure 8. This strap is available at Card's as are small plates which can be used to screw it to the seat supports and rear of the centerboard trunk. The cost should not exceed \$4-5.

The crew should hike out even more than the skipper and cannot use the seat slat technique if he, or she, is sitting as far

forward as possible, as they should be. A simple strap arrangement is a loop of line around each thwart, linked together with shock-cord, as shown in Figure 9. The loops are fastened to the underside of the thwarts by screws, straps or staples.

10. Boom-Vang

A strong, easy to operate vang is a must for reaching and downwind work. A four-part arrangement seems about right and Card has one already made up which fills the bill. Make sure the fittings on the mast and boom are very strong; the vang exerts a lot of force. The price is about \$20 complete, but is worth it

An interesting point about the use of a boom vang with the standard sliding gooseneck is that the vang tends to pull the gooseneck downwards, hence tightening the luff, on just those conditions, i.e., reach and run, when the luff should be slack. It is necessary to prevent this downward movement and this is easily done by putting a sail slide stop, with screw fitting, below the gooseneck and fixing it in the lowest position required for beating. The gooseneck is held down to this stop by the downhaul when beating. Such a stop is shown on page 173 of the catalog, #30571 and costs \$2.25.

11. SLIPPERY GLASS BOTTOMS

A Slippery Glass Bottom, when wet, is the envy of all sailors provided that it is on the underside of the boat and not on the inside. Due to the relatively large cockpit area in a Townie,

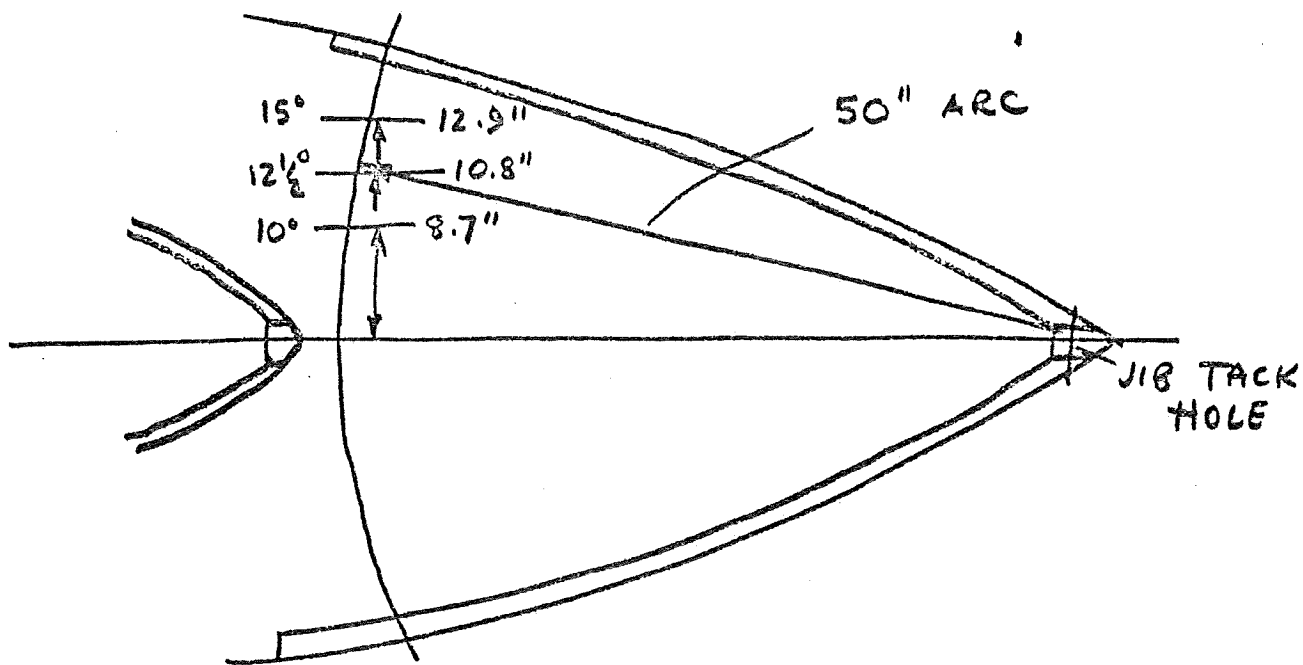


FIG 7 LOCATION OF JIB SHEET SLIDES

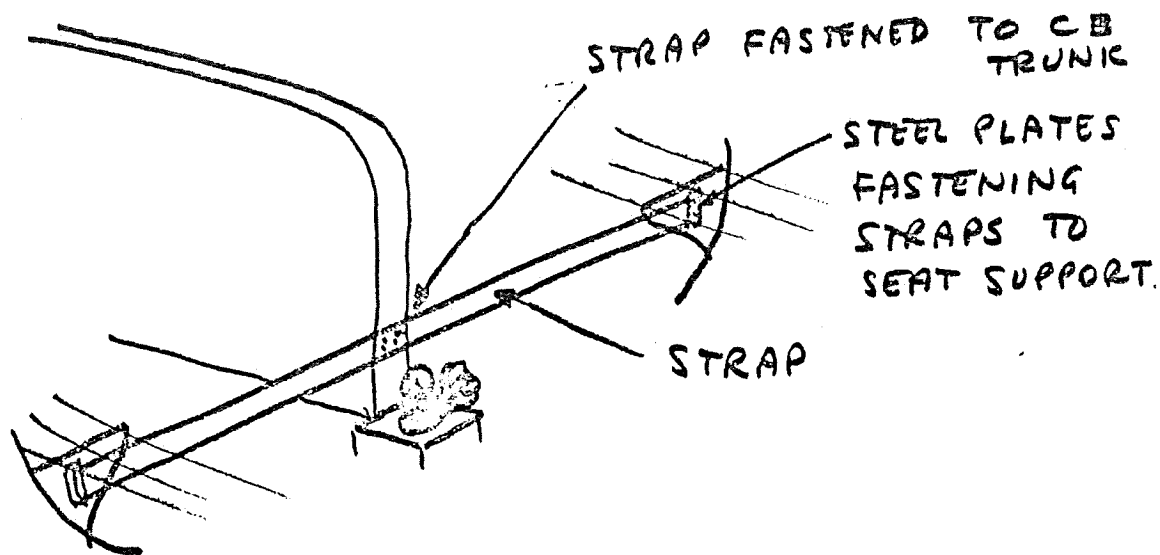


FIG 8 SKIPPERS HIKING STRAP

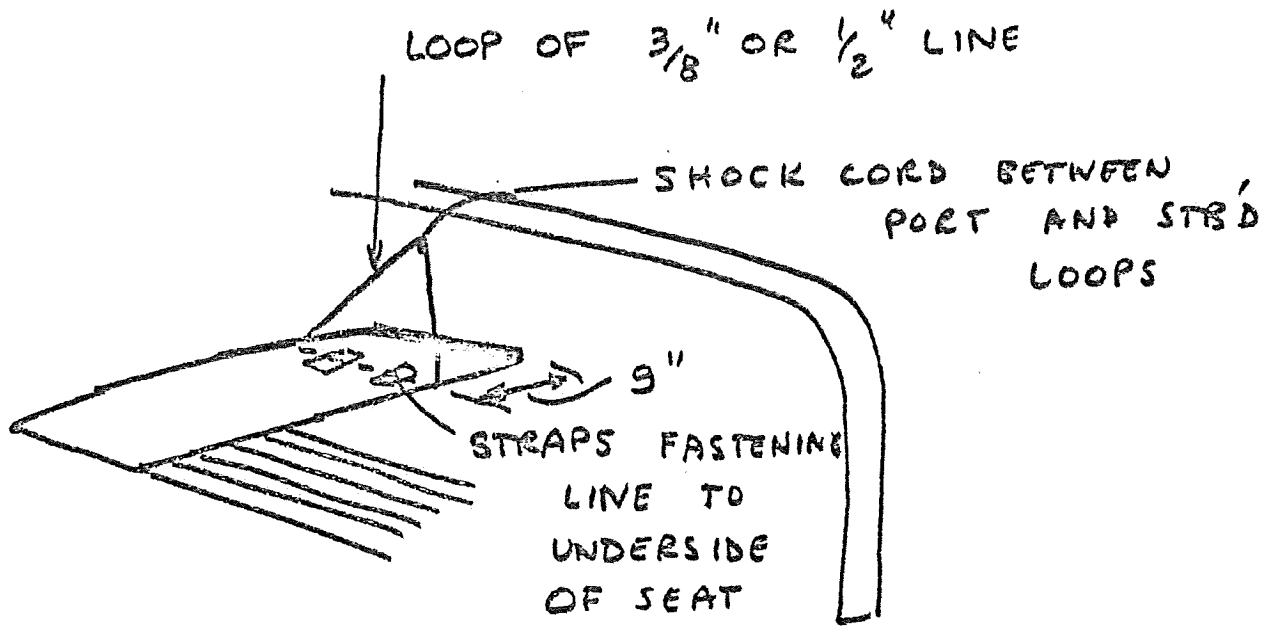


FIG 9 CREWS HIKING STRAPS

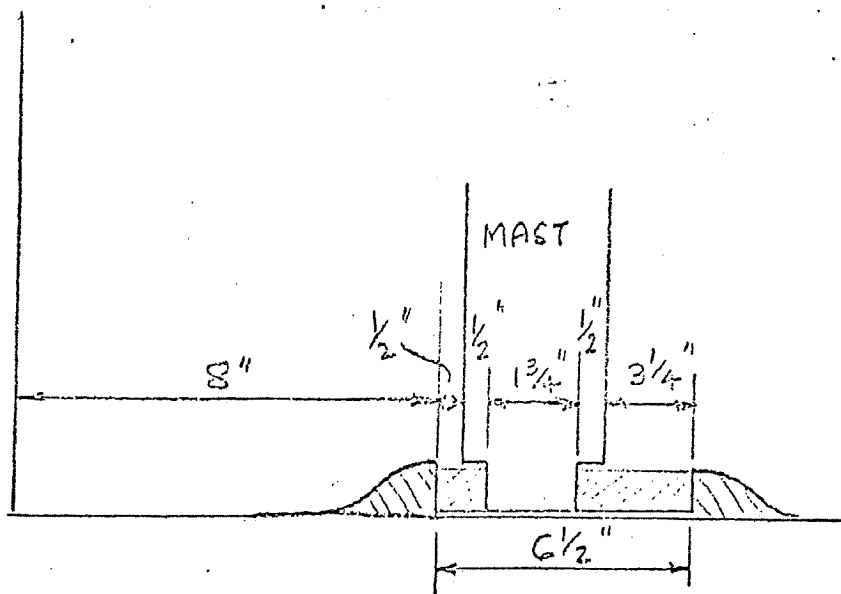
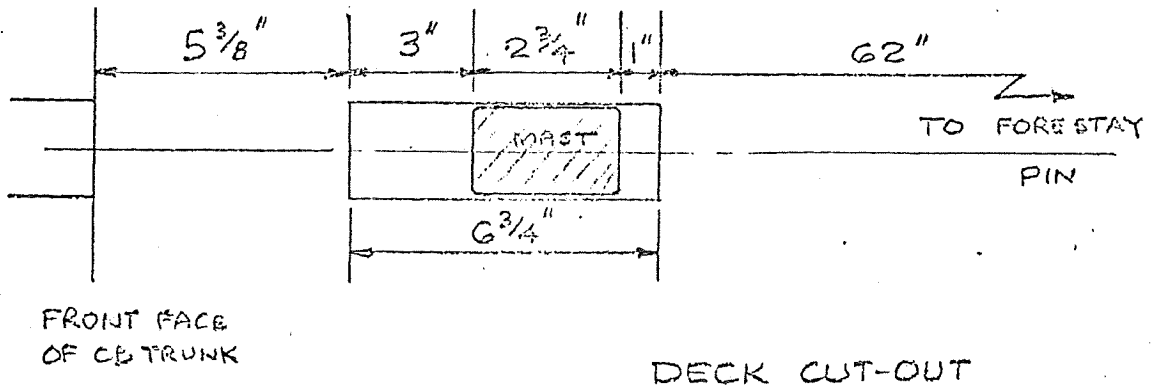
wet sailing is to be expected in a good breeze. Needless to say, this is just when good footing is required and the basic glass Townie's inside finish does not provide adequate surface friction under these conditions. Various methods have been tried to overcome this problem. One relatively cheap and effective method is applying a couple of coats of a sand and paint mixture on the floor area. Harry Bell has used this on his Day Sailer with success.

12. Wind Indicator

We believe that a reasonably accurate indication of apparent wind direction is essential for off-wind sailing, particularly on a dead run. Unless the direction is known, the skipper has difficulty in deciding when to jibe to maximize speed and, even worse, may suffer an unintentional jibe. A mast-head indicator seems to be the best arrangement and several models are available. Some of these are shown on page 236 of the Lands' End catalog, a popular choice being #1 priced at \$ 7.95.

13. Mast Location

Most competitive boats have their masts forward of the original location and in addition have some forward rake. This minimizes the weather helm which requires considerable force on the tiller and displacement to windward, particularly when heeled in a high wind. The following measurements were made on #2007 and give a very much reduced weather helm; similar dimensions are used on #601, #937, #877 and #21.



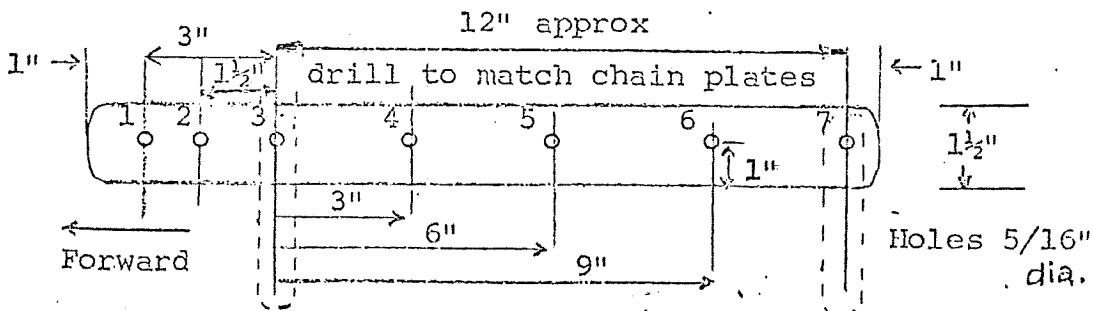
STEP  
MAST DECK CUT-OUT AND STEP DIMENSIONS

# 2007

14. Chain Plates

If the mast is moved forward to the location mentioned in the preceding paragraph, the shrouds are about 6"-8" further aft than the original design, relative to the mast. The main effect of this is to limit the forward motion of the boom on a run which reduces the driving force and restricts the amount of by-the-lee sailing that can be done before introducing unintentional jibes.

The simplest way to modify the positions of the shrouds is to use an extension bar as shown below. This is based on that used on #2007; similar ones are in use on #601, #937 and several other boats. Al Armirotta has arranged for the manufacture of these bars at \$8.00 per pair.

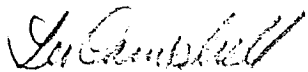


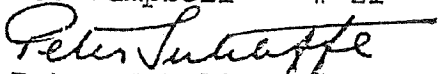
Material: 1/8" stainless steel

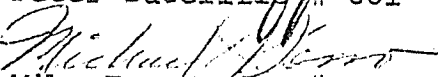
The bar is bolted to the chain plates with 5/16" bolts through holes 3 and 7 and the turnbuckles mounted off the bar at appropriate holes. A typical arrangement for a mast at the forward end of the slot would be to have the shrouds on the forward holes (No. 1) and the lower back stays on either hole 4 or 5.

15. Summary

The above gear is suggested as necessary to turn a day-sailing Townie into a credible racing boat. There are many variations on each theme but the ones suggested have been proven to work well. The maximum cost of all the items listed is around 120 which may seem a lot, but remember it is about 5% of the cost of the new glass Townie and can make all the difference in handling and therefore performance.

  
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SUMMARY OF TYPICAL HARDWARE

FOR A TOWNIE

Paragraph/ Purpose	Description	Catalog Reference			Price
		Page	Number	Maker	
2) Main Cam-Cleat	Cam-Cleat	115	# 8	Star # 40153	\$ 22.00
3) Traveller (Figure 1)	Fairlead	-	-	-	0.75 - 1.25 (Card's) 0.40 1.36 1.00 Total (max) \$ 4.01
	Eye-strap	148	# 9	Star # 40182	
	5/16 or 3/8" Samson Braid (8')	96	-	Samson # 16242	
	Cleat	188	#13	Fico # 22154	
3) Adjustable Traveller (Figure 2)	2 Swivel Blocks	170	#	Schaeffer # 30626	\$ 10.00 2.04 0.40 3.95 Total \$ 16.39
	5/16 or 3/8" Samson Braid (12')	96	-	Samson # 16242	
	Eye-strap	148	# 9	Starr # 40182	
	Cam-Cleat	117	#14	Fico # 42124	
4) Lever Operated Outhaul (Figure 3)	Clam Cleat with fairlead	148	# 1	#25432	1.40 1.95 6.50 1.26 Total \$ 11.11
	Block	148	# 5	#42266	
	Lever	131	#26	Star # 40338	
	3/16" Samson Braid (18')	96	-	Samson # 16238	

SUMMARY OF TYPICAL HARDWARE  
FOR A TOWNIE

Paragraph/ Purpose	Description	Catalog Reference			Price
		Page	Number	Maker	
5) Cunningham Downhaul (Figure 4)	Eye-strap	148	# 9	Star # 40182	\$ 0.40
	3/16" Samson Braid (6')	96	-	Samson # 16238	0.42
	Clam Cleat	148	# 1	# 25432	1.40
				Total	\$ 2.22
7) Jib Fairleads (Figure 6)	2 Fairleads	-	-	-	\$ 2.50 (Card's)
	2 Fairleads	201	#20	Nicro/Fico # 42280	9.90
	2 Track	200	# 9	Nicro/Fico # 42286	6.90
	4 Nylon End Straps O R	201	#16	Nicro/Fico # 42092	0.80
	Track & Fairleads From Card's			Seaboard Fig 3200	\$ 20.10
			Total	Total	\$ 7.30 ec. \$ 14.60
8) Tiller Extension	Complete Extension	176	# 6	Fico # 42304	\$ 7.75
	Extension Fitting	176	#10	Fico # 42020	3.90
			Total	Total (max)	\$ 7.75
9) Hiking Straps (Figure 8) (Figure 9)	Nylon Strap 5'	227	#27	#16632	\$ 1.75
	Plates (2)	227	#23	#35216	1.20
	3/8" Samson Braid 8'	96	-	Samson # 16244	1.76
			Total	Total	\$ 4.71

SUMMARY OF TYPICAL HARDWARE

FOR A TOWNIE

Paragraph / Purpose	Description	Catalog Reference			Price
		Page	Number	Maker	
10) Boom Vang	Complete From Cards inc eye-strings Stop	173	#25	Seaboard Fig 4300 Schaeffer # 30571	About \$ 21.00 2.25
12) Wind Indicator	Mast Head Fly	236	# 1	#19680	7.95

NOTE: Prices do not include tax or postage from Lands' End.