by Ron Meissner

customized to match the gudgeons. The upper pintle is fastened as described above using the panhead machine screws through the spacer tubing. The lower pintle must be fastened so as to not interfere with the rudder blade. This requires countersinking the holes on the inside of the cheek pieces and inserting 3/4 inch long flathead machine screws from the inside out on each cheek piece to fasten the pintle.

#### Blade

I made my blade out of 3/4 inch redwood which was available at the local lumber yard. The board was cut into six 2 inch by 30 inch strips and glued together with WEST System™ epoxy to make up a 12 inch by 30 inch board. I made up a vellum paper template to match the official plans outline of the blade perimeter and the "A" line of maximum thickness. I also added reference lines spaced from the "A" line to incrementally divide up the surface area fore and aft of the "A" line. These lines mark the change in thickness for the foil shape. After transferring this information on to both sides of the wood blank, I used a sabre saw to cut out the outline and used a router following each of the "change in thickness" lines, increasing the cutting depth as I worked from the "A" line to the foil edge. Then using a planer and sander I shaped the blade down to the foil line depths. I then covered the blade with a 6 ounce fiberglass cloth and WEST System™ epoxy.

The blade is in the full down position when the notch in the leading edge of the blade at 1 inch above the waterline and the bottom of the boat butts against the machine screw / spacing tube at the lower front edge of the cheek pieces. A line between an eye strap on the upper aft end of the blade runs forward of the forward middle spacer to a clam cleat on the tiller and holds the rudder in position.

#### Ed. Note:

Since the beginning, the Penguin specs have allowed a kick-up rudder – certainly a very handy thing for beach launching. I have never seen one.

Ron Meissner took on the challenge this summer and tells how he did it.

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199	7 INTERNATIONAL PENGUIN CHAMI	PIONSH	IP		JULY 21-27, 1997				7	
	FINAL RESULTS									
Hos	ted by Rio de Janiero Clube Naval									
			1	2	3	4	5	6	7	POINTS
1	Luiz Lourenco/ Andre Ribiero	9600	1	5	4	2	2	1	2	12.0
2	Ricardo Dantas/ Isadora Lupetina	9526	2	2	6	1	8	3	1	15.0
3	Eduardo Neves/ Joao Fernandes	12	4	1	5	3	1	7	6	20.0
4	Larry Cole/ Renan Campos	9243	3	6	1	7	4	5	3	22.0
-5	Catherine Wagner/ Marina Alencar	797	5	4	3	5	5	10	5	27.0
6	Eduard Carneiro/ Andre Coelho	9507	8	3	ocs	8	3	2	4	28.0
7	Jose Carlos Nunes/Liege Obelar	9	6	7	2	9	6	6	8	35.0
8	Matheus Resmine/ Ricardo Meireles	9712	12	8	8	6	13	9	11	54.0
9	Marcos Arauja/ Daniel Meireles	19600	dnf	12	11	10	11	4	7	55.0
10	Carolina Licio/ Claudia Benchimol	9511	10	11	9	11	9	8	13	58.0
11	Guilherme Born/ Alexandre Tavares	97	13	10	7	4	12	dnf	15	61.0
12	Robert Black/ Mary Black	7696	dnf	16	12	14	7	11	9	69.0
13	Paula Campos/ Fernanda Pizzormo	9585	7	13	16	16	14	14	10	74.0
	Felipe Dumont/ Pedro Loureiro	9708	9	ocs	10	13	10	dnc	14	74.0
15	Rodrigo Rosa/ Diego Fernandes	9518	11	14	13	12	16	12	ocs	78.0
16	Kathryn Weber/ Renata Ribeiro	9572	14	9	15	15	15	dns	12	80.0
17	Pablo Perez/ Roberta Pedrosa	9292	15	15	14	17	dnf	13	dns	90.0