

# MOTOR BOATING & SAILING

OCTOBER 1978

\$1.50

## SPECIAL ELECTRONICS BUYER'S GUIDE

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Fad or  
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# MOTOR BOATING & SAILING

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Cover photograph by Mike Hannau

No. 3 in a series

# Speed, Stability, and Common Sense.

Alajuela Yachts puts some crusty attitudes  
about cruising boats  
in their long overdue resting place.

In previous pieces we have talked to you about the importance of strength, and sound construction in a yacht designed for long distance cruising. Now let's turn our attention to pure sailing ability. A vital attribute often overlooked by many in evaluating a cruising boat.

Yet speed is essential to an honest cruising yacht. For a yacht that takes forever to get there is as much a liability as it is a bore. Speed is the quality that lets you make port ahead of the weather you wish to avoid. On her sea trials, our new Ray Richards designed Alajuela 33 indicated six plus knots sailing full and bye in a flukey eight knot wind. That's the kind of pure sailing ability that makes cruising pure pleasure.

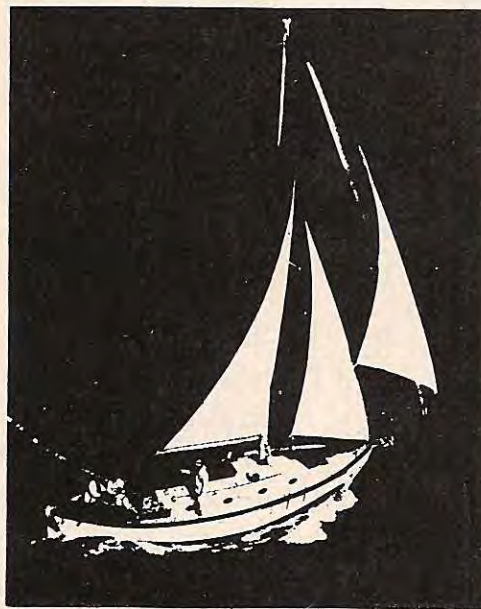
Now let's talk about stability. In a well-designed cruising boat you should be able to trim her up on almost any point of sail, and then take your hands off the helm and relax. That is tracking ability. Some people just don't believe it exists anymore. If you are one of them, do us both a favor and contact your Alajuela dealer. One short sail in your choice of weather should end all discussion.

We have prepared a booklet to help the cruising man settle on the things he really needs in his next yacht. It is full of common sense and well tested opinions. It is in honest black and white and its

price is an honest \$5.00. If you're serious about cruising, it's worth it.

Alajuela, because where you're going only the best there is makes any sense.

To learn more about Alajuela Yachts, send \$5 for our booklet, "How to buy a Cruising Yacht." A good investment for anyone interested in cruising.



Even if your dream must wait until tomorrow, you should start planning today!

# alajuela

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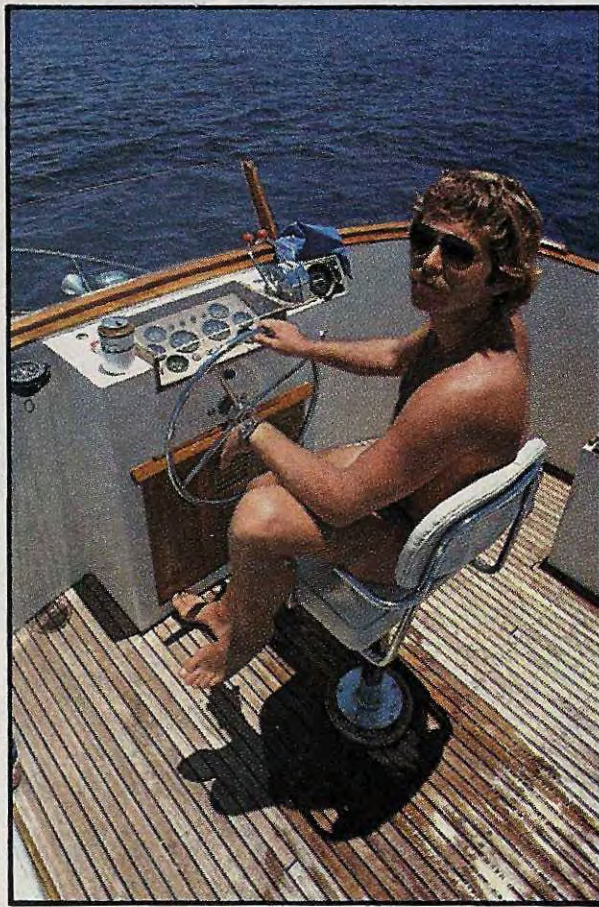
MBS-10

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# YOU ONLY GO AROUND ONCE

BY SHEPPARD ROOT



**How one man did it with gusto: voyaging 20,000 miles from Hong Kong to Florida in a stock trawler with an appetite for oceans.**

Walking the docks in Fort Lauderdale, you might notice a handsome Cheoy Lee trawler lying alongside one of the piers. It's a solid-looking boat, around 40 feet, with nice lines, a pleasing flare in the bow, heavy teak rub rails, and a lot of varnished teak trim. Looking closer, you might notice fittings for storm shutters around the ports and windows. Except for that, there isn't anything special about the boat until you look at her transom, which says "China Blue, R.H.K.Y.C., Hong Kong."

A lot of people look at that stern and start chuckling sarcastically. But, no, it isn't pretense. *China Blue* is a proud and honest boat, the first of her kind to come the whole way on her own bottom.

---

*Shep Root raced and cruised sailboats for ten years before settling on a trawler for a 13-month odyssey. He's now back at home in Florida.*

She may not look it, but she has an appetite that lets her swallow whole oceans. In just over a year, she carried me down the South China Sea, across the Indian Ocean, up the Red Sea, through a memorable summer in the Mediterranean, across the Atlantic to the Caribbean, and finally home to Florida.

How did it work out? Just fine. A piece of cake. Twenty thousand miles at sea, thirteen months, six different passages of more than a thousand miles, and I can only think of one time when I was scared to death (just about the right proportions). It was an easy trip for me to organize. The cost was about what I forecast. The time it took was within the limits I set for not totally ruining my career. I did it with only one crewman. And in the end, I found myself back in the States, feeling satisfied and relaxed, and the owner of a boat worth more here than I paid for her in Hong Kong.

The original idea was planted about four years ago when I came across an early copy of Bob Beebe's *Voyaging Under Power*. This is the standard text on the subject and it's improbable that I, a sailor from way back, could have gotten started without it. Not only does Beebe carefully present his ideas, but he built a boat that proved he was right, and had the numbers to show *why* it worked. That's the kind of man I like.

The unfortunate part was that all of the boats in his book were either custom-designed or produced in very small numbers. I didn't think I had enough experience, money or time to get involved with a custom vessel. After all, what I really wanted was a boat for a single long cruise before settling back into business. The answer had to be a stock boat already in

**The boat** that went 20,000 miles takes Root and friend for an afternoon spin.







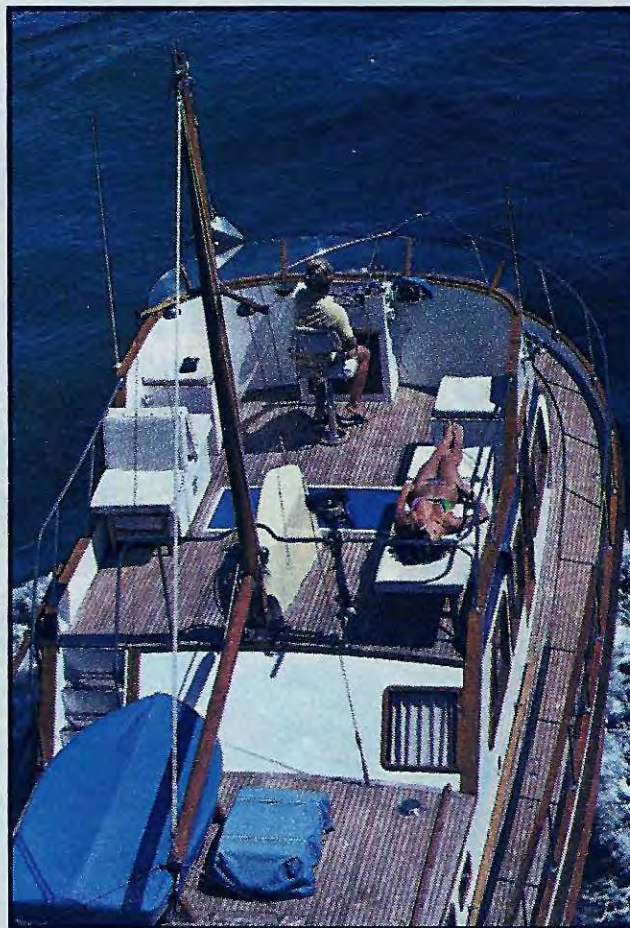


**China Blue's** main cabin was Root's home for 13 months. His electronic gear included Omega and a VHF—the only radio he did carry.

production, and with an established market value for easy, fast resale.

Around this stage of planning, a business trip took me to Hong Kong for about a year, and I found the Cheoy Lee Trawler 40 which I could buy at an attractive price: \$69,000 compared to the then U.S. list price of \$105,000.

This boat interested me because her *standard* fuel tankage is about 830 gallons. However, it took a while to discover it, since Cheoy Lee tankage figures are understated for this boat. My figures were confirmed during initial fueling. By converting one of the three existing water tanks, I raised fuel capacity to 1,100 gallons and still had 450 gallons of water. As simple as it was, that was the principal



modification necessary to make *China Blue* a hypercruiser.

Using Bob Beebe's graphs from *Voyaging Under Power* and the numbers for *China Blue*, I estimated a flat-water range of 3,500 nautical miles at 7 knots. Even if my estimates were off, I would still be in good shape because the longest *necessary* leg between Hong Kong and the United States, from the Cape Verdes to Barbados, is only about 2,200 NM.

I had to allow room for error because I would be using the presumably less efficient twin engine (twin 72-hp Ford diesels). Beebe, of course, recommends a single engine, but I really didn't have a choice because Cheoy Lee doesn't build the boat I wanted with a single. Actually, there wasn't much difference between the predicted fuel consumption for the twin over a single, at least in the results I got (see chart on page 77).

Also, since I ended up with twins, I





“There are vast differences between what is uncomfortable and what is dangerous. It is crucial to know one from the other.”

#### Spare change

With the major decisions—boat, fuel load and engines—out of the way, I attacked some of the other problems I thought I might face. Spares for the engines, pumps and electrical gear were easy to assemble. All were in stock at different dealers in Hong Kong, which proved to be an excellent base for the start of a long cruise. Almost everything was available at fair prices, and frequently below U.S. cost. My Sony multiband radio, for instance, was \$995 in Hong Kong when it was \$1,650 in the States.

**When asked** about the steadying sail which *China Blue* could carry (below), Root said he found it no help at all on his long trek from Hong Kong.

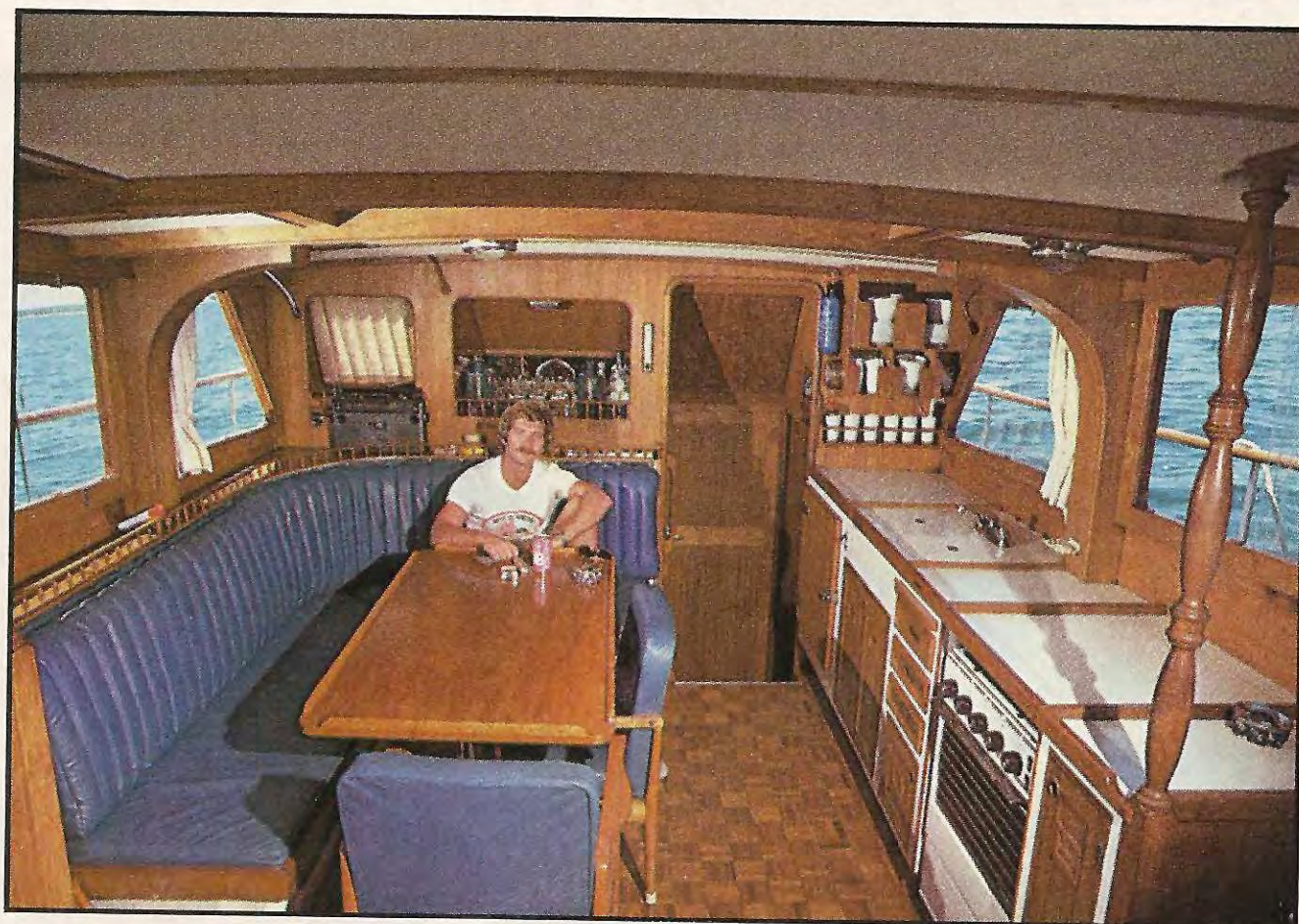
Of course, I did have an underlying plan for spares. Take pumps, for example. I made sure that Cheoy Lee used only two different types: rotary and automatic pressure. The saltwater wash-down pump was exactly the same as the freshwater pressure pump, and the sump pump was the same as the bilge pumps. I bought parts and a whole new unit to replace each of the types. I could therefore repair the pumps if I had time, replace them with a new unit, or—if worse came to worst—replace them with another of the operating units. Since broken-down pumps turned out to be my most frequent problem, I'm glad I arranged it this way.

Engine spares were treated the same  
*Continued on page 75*



learned to like them. You can't beat them for going stern-to in the Med or maneuvering in close quarters. They're good banks of spare parts for each other. Most important, you have an auxiliary already running and in gear if one engine cuts out. My principle objection to singles is, what happens when the main engine fails? If there is a stand-by system which can be cut in instantly, fine. But imagine losing the main engine while running in ugly weather.

I've been out there and I know how long it takes to get sideways. Is that when you get down to hook up the belts or chain? How fast can you get the generator fired up when you've just been knocked over on your beam ends? Of course, there are arguments against twins, but if floating debris and protection for the props during grounding are problems, they never were for me. I try to avoid running aground.





## YOU ONLY GO AROUND ONCE

Continued from page 47

way. I brought plenty along, but knew that if things got rough, I could cannibalize one engine to run the other. My list of engine spares included two complete sets of high pressure hoses, eight injectors (so all could be replaced on both engines), gaskets for everything (and material to make more), impellers, V-belts, valves, compression fittings, thermostats, a complete injector pump (expensive), lots of transmission oil, and all kinds of other junk like steel tape, epoxy, monel wire, duct tape, and several big boxes of fuel and oil filters.

Clearly, all that gear cost big money. The price of a complete injector pump is bad enough by itself. But there are ways to soften the blow. In many places import duties are high and diesels are common. Keeping that in mind, I started selling expensive spares after I finished the Atlantic crossing and the worst of the risks were over.

I had a fine dinner with friends one night on the profit from selling my injector pump. It may not be strictly legal in some places, so I don't recommend it, but it can't hurt to have a little talk with the local mechanics along the way, especially if your engines are based on common industrial engines, like Ford or Caterpillar power plants.

Another thing to keep in mind is that common epoxy, tape, clamps, bolts, screws and filters will be needed more than those extra engine valves. That's the statistical truth. Plan accordingly.

### Laundering the fuel

Next on my list was how to insure clean fuel. Since this is the best way to keep diesels running, I knew it deserved attention while *China Blue* was being built. The Cheoy Lee 40 already has tanks with cleaning ports and drain sumps as standard. That was a help because the sumps could be drained after each fueling to get the heavy dirt and water out before it started on the way to the engines.

The Ford diesels have two filters on each engine as standard. What I did was design a simple system that added a water separator and two more filters (using the same type filter cartridges used on the engines) to each power plant. Some extra piping and valves fixed it so fuel could be routed through either or both. That way, a clean filter would always be in line and ready to go if the other clogged up.

The disadvantage of this system was that every time I got around to it, I had eight filters to change. Still, I'd rather do this at my leisure than in raging weather when the sea had stirred up the black junk in the tank bottoms.

## Yes, You Can Get Insurance

Wallem Lambert Brothers Ltd. in Hong Kong quoted 3.5% to insure *China Blue* for one year. The only exclusion was for the Pacific, but I didn't say I wanted to go that way. At the time it was issued, the coverage included war risk which might be good to have for Suez. Otherwise, subtract 0.5%. Wallem Lambert is no fly-by-night operation. It is solid. Lloyd's and other co-insurers in London back the policies. To get these rates, they will expect the vessel to be properly crewed and equipped. They are especially receptive to responsible yachtsmen with substantial offshore experience. I actually broke the conditions of my policy because I didn't realize I would be going with a crew of two not four. So you probably won't get the same rate for single-handing or taking an inexperienced friend as crew.

### Additions and omissions

There are a few small changes that should be mentioned because they made *China Blue* a safer sea boat. For instance, a common fear is having windows broken

*Continued*



## YOU ONLY GO AROUND ONCE

Continued

by boarding seas. Lexan storm shutters were a standard and inexpensive Cheoy Lee option. I bought them. Curiously, *China Blue* never did take on green water, even during a howling 70-knot storm in the Gulf of Suez. The storm shutters did, however, come in handy when we broke a saloon window with a boathook while docking.

Because there was so much conflicting advice about which causes less drag—free-wheeling props or locked ones—I decided to rig for both. I had collars added to both shafts, and a split bearing that could be bolted over the collar on either shaft. That way, pins could be inserted to lock the shaft, or the bearing could hold the collar so that the shaft could be completely disconnected from the drive unit to free-wheel.

Of course, I added an autopilot. It's required gear on hypercruisers, for steering by hand for weeks on end is no fun. I know! My Benmar 16-B-3 expired off the tip of Sumatra and forced my one crewman and myself to steer by hand until we got to Israel, 5,000 miles later. Think about that. Two people steering by hand, watch after watch, for 5,000 miles.

The cause of the problem was a ruptured seal on the hydraulic pump. What

was required was a new pump and a pressure equalization line between the autopilot pump and the main steering station. This line had not been installed at Cheoy Lee because the Benmar installation manual didn't call for it (something which has since been corrected). Benmar did air freight a new pump free of charge which I installed myself in a morning.

So much for some of the additions; there are a couple of things conspicuous by their absence on *China Blue*. One thing a number of people have commented on is the lack of a generator. As a sailor, I never had one so I didn't miss it. It would have been nice to power hand tools, but it wasn't a hardship. I doubled my battery capacity, and invested the rest in wine, women and song.

Another thing I didn't have was some means of roll stabilization, whether flopper-stoppers, activated fins or some other method. The fact is that *China Blue* was built on short notice. I didn't have time to get custom flopper-stoppers built and still catch the critically important change of season in the Indian Ocean. I simply ran out of time, said the hell with it, and decided to go without them.

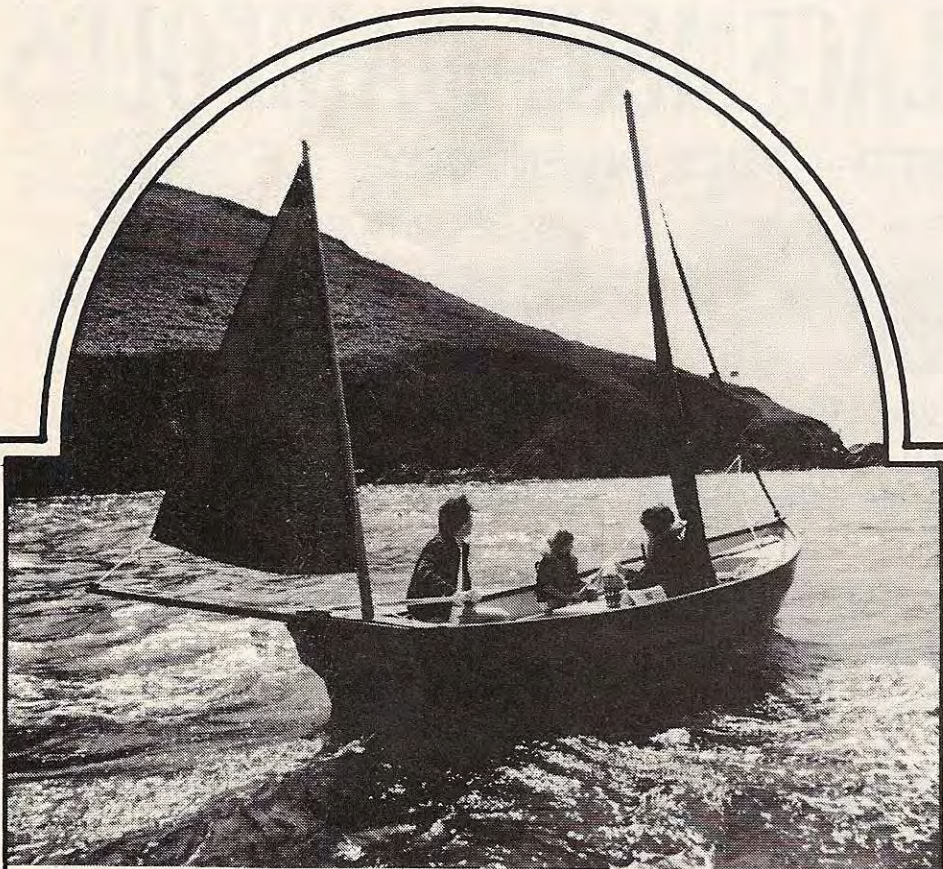
Although I didn't set out to prove anything, I think I did in spite of myself: that displacement motor yachts (at least some of them) can make long passages without expensive stabilizers, no matter

what anybody says.

Yes the boat does roll horribly . . . sometimes. And, yes, if I were to make a similar trip again, I definitely would have flopper-stoppers. But not having them shouldn't discourage skippers who already own boats otherwise suitable for making passages. There might be some difficult times—but they won't be impossible times if the crew has strong stomachs. With *China Blue*, in thousands of miles of voyaging, I can think of only seven or eight days when I wished I had stabilizers. Go! Don't stay at home just because the family budget won't stand major modifications.

This brings me to a point I feel strongly about. It applies to everything from stabilizers to cruising in general. *There are vast and important differences between what is uncomfortable and what is dangerous.* It is crucial to know one from the other.

The whole idea of going offshore in a power vessel strikes fear into the hearts of many sailors, but to cross oceans you don't have to go under sail. For most passages, in the correct seasons, a well-designed, well-found motor vessel will carry you safely. It doesn't have to be a hundred feet long, or custom-designed or built at a cost of hundreds of thousands either. A stock production boat is capable of doing the job in a workmanlike



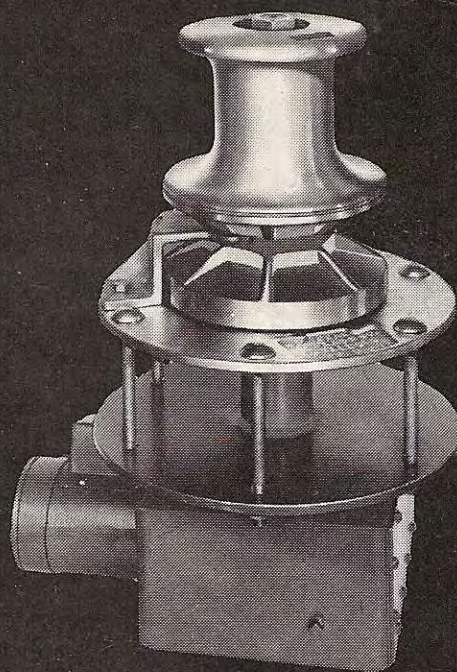
**W**e take pride in the Drascombe Flotilla, descendants of workboats that plied their jaunty trades along the English Channel and Irish Sea, ready for any weather. They have made impressive cruises but are primarily intended for family sailing; honest, versatile craft, beachable, trailerable, low maintenance fiberglass with much teak and varnished spruce spars. There are five models from 16 to 22 feet, one with cuddy and all of them yawl rigged; one may have inboard gas or diesel. Priced from \$3,200 complete with oars and sails, they are a great deal of boat for a reasonable price.

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As these numbers show, powerboats don't have to cost that much to operate unless you're in a hurry. Doing 170 miles a day during my 1977-78 voyage, the cost per mile was between 13¢ and 25¢. The variation was due to differing fuel prices and the effects of increasing speed to make a landfall. The two most representative passages were Hong Kong to Singapore, and Columbo to Aden. There was no speeding up at the end to distort the figures. Speeding up can make enormous differences in consumption, even if it's only done for a few hours. Going from 7.0 to 8 knots practically quadrupled my gallons per hour figures. For the two passages mentioned, milage was well above 3 NMPG at a speed of around 7 knots. That was at a cost of about 14¢ a mile, about half the cost of going the same distance in a rented car. Considering that I could have taken six people if I wanted and that I was hauling a 19-ton "house" with me, that wasn't too bad. If hypercruising isn't free, at least it's good value.

## Passagemaking: A Good Value

Route Segment	Distance	Hours		Speed	NMPG	GPH	\$PNM	US Gal.
		Running	Days					
Hong Kong to Singapore	1,500	212	8.85	7.08	3.2	2.22	\$0.13	470
Singapore to Penang	370	50	2.08	7.40	3.08	2.4	\$0.16	120
Penang to Columbo	1,245	174	7.25	7.16	3.24	2.21	\$0.15	384
Columbo to Aden	2,260	328	13.70	6.89	3.14	2.19	\$0.14	720
Aden to Haifa	1,867	277	11.54	6.74	2.25 <sub>a</sub>	2.99 <sub>a</sub>	\$0.24 <sub>a</sub>	830 <sub>a</sub>
Malta to Gibraltar	1,040	148	6.17	7.03	1.93 <sub>b</sub>	3.64 <sub>b</sub>	\$0.25 <sub>b</sub>	539 <sub>b</sub>
Gibraltar to Canaries	795	115	4.79	6.91	2.78 <sub>c</sub>	2.47 <sub>c</sub>	\$0.17 <sub>c</sub>	285 <sub>c</sub>
Canaries to Cape Verdes	880	122	5.08	7.21	2.7	2.68	\$0.20	327
Cape Verdes to Barbados	2,160	299	12.5	7.22	2.57	2.81	\$0.23	840

(a) Significant differences in the numbers, over previous route segments, reflect six weeks of in-port battery charging and beating 700 miles to windward in the Red Sea.

(b) Different props and trying to make up time lost during the gale account for the poor economy on this leg.

(c) This leg was 750 miles to windward, with the wind against the current. It also shows what happens to economy when speed is adjusted to make a landfall at a specific time. I prefer to make them just after dawn, for example. All route segments after Aden show less efficiency because of the speed/consumption relationship: i.e. my deciding to speed up in the last 24 to 36 hours to make ETAs.

manner and without drama.

*China Blue* was a stock boat. With cruising gear, she cost about \$75,000. And she brought me home from Hong

Kong safely. And nobody had more fun doing it than I did. That's the truth. †  
In December, Shep Root talks about the voyage itself with valuable observations

on short-handed long distance cruising, navigation and boat handling during a fierce Red Sea gale—the only serious storm he encountered in 13 months.