



# Flicka Friends



Summer 1997 Vol. 3 #1

## Sometimes... not steering is just fine

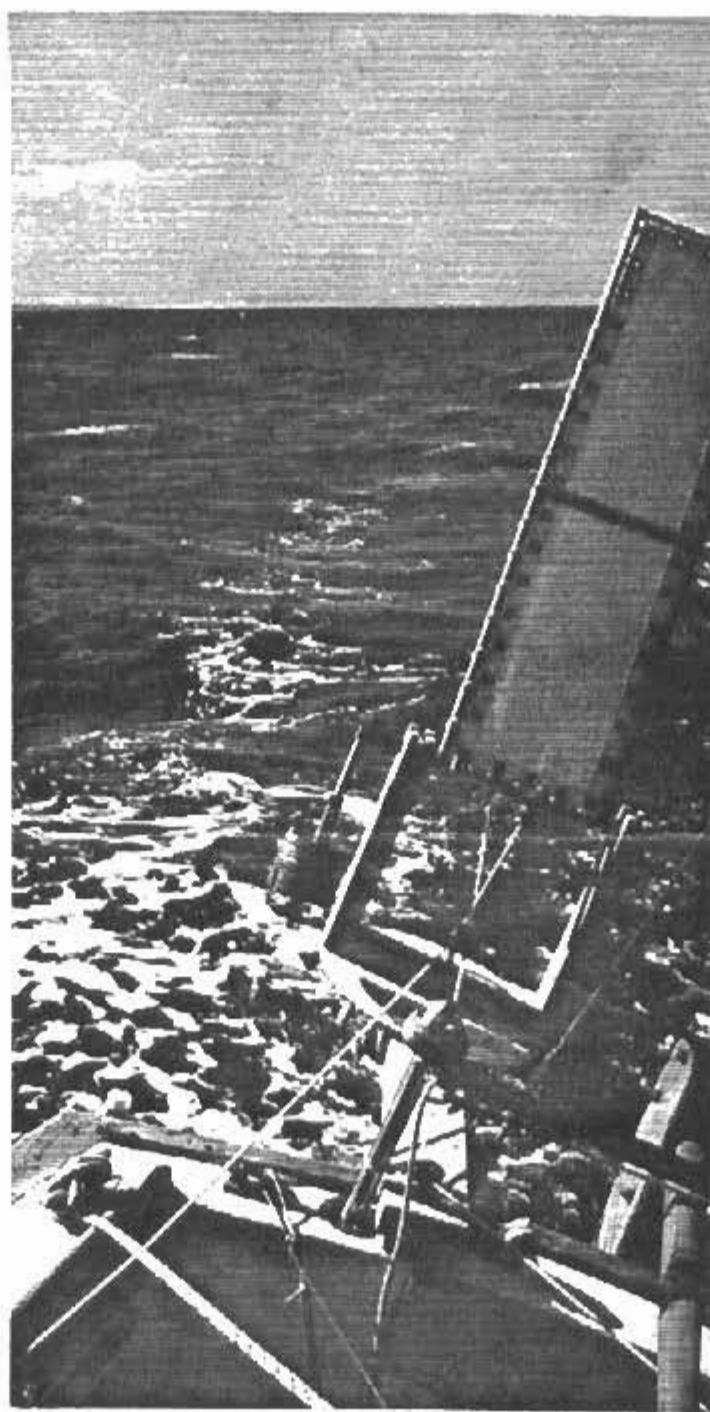
A fine breeze, a cloudless sky, one's hand on the tiller, feeling every slight response of a good little ship at your command as she plies home waters or far distant seas is a feeling that, for those who know it, needs no description. What could be better? Not doing it is often better. Letting go of the tiller or wheel can be just as exhilarating. Probably shortly after the invention of the world's most beautiful machine, the sailboat, someone figured out a way of not having to steer.

In the days when conquering armies regularly made slaves of the vanquished, it was easy to find someone else to steer the boat or later when signing up for sea duty meant being shanghaied or released from a long prison sentence it was also easy to find someone to steer the boat.

Today, things are different. But there is still a need for someone or something to steer the boat. There are several ways to accomplish this. A full keel boat such as the **Flicka** will steer herself in various conditions with no added mechanical or electronic aids, although it would be foolish to retire below and hope for the best.

Sails can be trimmed and connected to the tiller to provide self-steering without resorting to expensive equipment. Again, retiring below under these conditions would not be bring peace of mind.

An electronic auto-pilot can steer a compass course better than



Pictured above is John Hazen Jr's Flicka sailing under his homemade windvane. Story begins on page two.

humans can. These devices are relatively inexpensive, but in your editor's opinion they are not very reliable. Three different units have been aboard the *Prince of Whales* because of failures with the first two. There was one aboard the boat I sailed across the Atlantic that only worked for the first few days and forced us to steer by hand for nearly 3000 nautical miles. In rough seas and strong winds, the auto-pilots fight very hard to keep their compass course causing strong forces to be put on what seem to be delicate instruments despite manufacturers' claims to the contrary. However, when cruising under power as is unfortunately the case all too often, the auto-pilots are gifts from heaven since there is little work more tedious than hand steering under power on a flat body of water. Another advantage is that they use relatively little power especially on a rig that is balanced well. Of course that advantage is also a disadvantage since they do use some power.

Windvanes are self-steering systems that do not require artificial power, but they do require power and are useless in still conditions. For long and some short voyages windvanes are the most efficient and reliable self steering systems. The Flicka with its outboard rudder and tracking ability are especially well suited to the installation of windvane steering systems. The following (beginning on page 2) is an article from one of *Flicka Friend's* regular contributors on his windvane system for hull # 22, *Windward Pilgrim*.

**Send more stuff**

**As always this section of the front page asks for articles, photos and other information from readers. Please send what you can even if it is a small article or a short story or a recipe. Photos are always great to receive. Also if anyone has ideas for new features, please let us know.**

## A vane recollection or steering vanes I have known

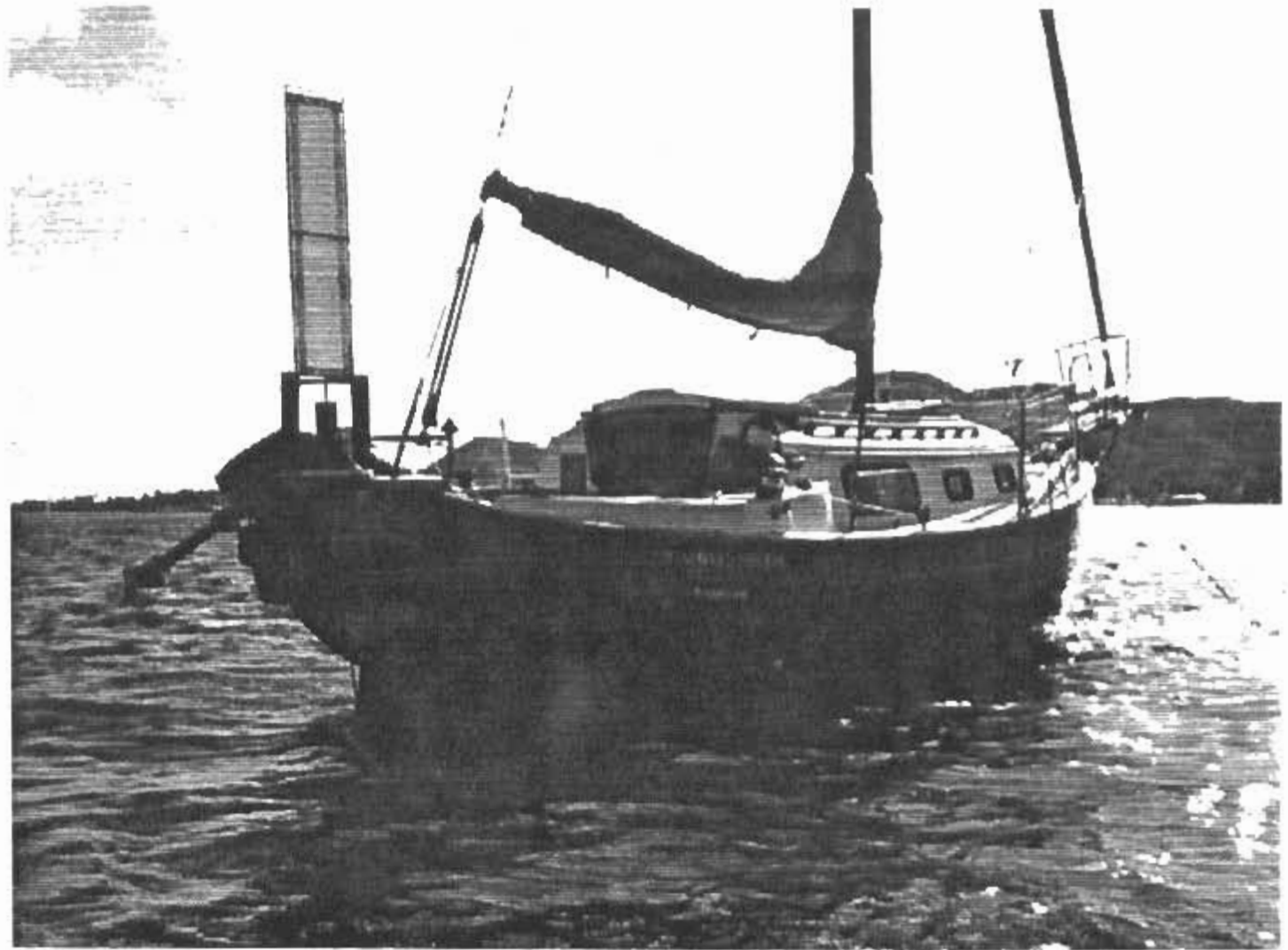
by John Hazen

One of the greatest pleasures of making long distant passage aboard my little yacht, *Windward Pilgrim*, is just lounging in the cockpit watching the steering vane that I designed and built steer the boat silently and competently. As the boat sails on the expanse of the Pacific, swells and waves knock the boat off course incessantly. As the boat turns just a little bit, the wind blows on one side of the three foot tall steering vane blade. The blade is then forced over, rotating two outstretched arms that will pull small cordage connected to the small tiller. The tiller controls the small trim tab connected to the trailing edge of the rudder. The turning trim tab kicks the rudder over so the boat steers back on course and the vane blade stands into the wind again.

There is a sense of satisfaction watching something you think up all by yourself work just the way you want it to.

I built my first steering vane twenty years ago. The Cal 2-24 that was going to sail me from Honolulu to Papeete, Tahiti needed something to self-steer it. After reading a couple of books and a few magazine articles on the subject, I was pretty sure I could build a self-steering vane that worked. Commercially made vanes cost from several hundred to a couple of thousand dollars...hundreds and thousands beyond my budget. I'll share with you how I built a self-steering vane, hopefully encouraging you to try building one yourself. It's no big deal.

I'll start with the blade down work. When I began, years ago, I decided that taut sailcloth inside a stainless steel frame was how my vane would look. I found a guy who did welding in his garage and had him weld a one-foot by three-foot rectangular frame attached to



Windard Pilgrim at anchor with windvane attached

a 1/2 inch diameter rod as the axle. Another rod was added to the axle to hold a counterweight. Lastly, a pair of outstretched arms were joined to the axle perpendicular to the vane blade frame. Peering into a dumpster behind a sail loft I found a scrap of sailcloth big enough for the blade. After sewing a good sized hem around the perimeter by hand with dental floss, I took this sailcloth rectangle to a sailmaker to have small grommets installed. The sailcloth was then laced taut to the stainless steel frame. Inexpensive bearings that would not pack up with salt at the ends of the axles are what I needed next.

"Get some nylon billet. Drill a hole through it. Polish the metal. The metal to nylon gets turning really nicely," an old salt suggested one day chatting with me in the boatyard.

I asked a buddy of mine who worked in a big factory about nylon billet.

"Heck, yeah. Tons of it. We hit stuff with it."

The next day he handed me a pair of "checkers" about two inches in diameter and a half an inch thick. Perfect. I drilled holes in them just slightly bigger than the axle, polished the ends of the stainless steel axle with fine wet/dry sandpaper then mounted the vane into slots in the mount I'd built out of mahogany 2X3's.

The next challenge was to counterweigh the vane blade so it would stand up, yet be sensitive enough to respond to very light puffs of wind to either side of it.

see page five

By Tom Davison

## Sailing Prince of Whales on Lake Michigan

Dennis Pratt and I spent July 19th sailing on Lake Michigan aboard **Prince of Whales**, his Pacific Seacraft Flicka.

Arriving at North Point, the forest of sailboat masts prevented me from finding the Flicka without a little help.

We unloaded a few things from the car and headed for the boat slip. **Prince of Whales** floated quietly in the slip, ready for another sail.

Once of the first things that I noticed was that **Prince of Whales** was really **Prince of Whales**. I missed this small detail in Flicka Friends.

After changing the head sail, we motored toward the open waters of Lake Michigan under a sky that didn't appear to have any threat of rain. The little five horsepower Nissan did well, moving the Flicka along quickly in the protected waters.

Nearing the harbor entrance we raised the main. The slight breeze that appeared promising.

With a new Garmin 45XL aboard, I wanted to use it.

The entrance to North Point Marina was marked for later use; N42° 25' 15.8" and W87° 47' 55.1".

As the blue hull entered the open waters of Lake Michigan, the wind died almost completely. We raised the 130% genoa and still we were barely moving. With the spinnaker on loan, this was the largest sail aboard; we would have to wait for more wind. As the distance from shore increased so did the wind speed. Even with light winds, the Flicka began to move, slowly at first then building slightly. Finally, there was enough wind to make



**Dennis Pratt steering Prince of Whales in light air on Lake Michigan**

Dennis trim the boat for a reach and we headed southeast

He also trimmed the sails well enough to balance the boat. I was pleased to see that **Prince of Whales** moved along without being steered. With the basically flat conditions, our course didn't seem to vary more than ten degrees.

Occasionally, the sails were adjusted to correct for the slightly increased winds. Still, the boat required very little tending.

We sailed along, talking about sailing a Flicka, and enjoying the good sailing day as The buildings and shore gradually disappeared in the distance.

By mid-afternoon, we turned toward shore, having reached N42° 24' 27.2" and 87° 38' 07.9", not any world speed record, just a good day of sailing.

On the return trip, there was a little more active steering and about half way back, an autopilot was added.

While sailing, I looked around **Prince of Whales**. There were several little personal touches aboard this Flicka. The tiller had several whale carvings along the side. There is also a small carved whale located under the bow pulpit. Hanging from the starboard side of the boat, I attempted to get several photos.

After the GPS fix was obtained at the turning point, I watched the boat speed on the display. I was surprised to see just how close Dennis could judge the hull speed of **Prince of Whales**. But, after ten years of sailing a boat, you get to know the boat, her capabilities and yours as well. He based his estimated speed on boat wake, and several other boat characteristics. **see page 4**

## Lake Michigan sail from page 3

Near the entrance, the numbers of powerboats increased as did the personal watercraft. The operator of the second vessel type provided the only negative experience of the day.

Just after starting the motor and while lowering the sails, we passed two guys on PWCs. While working with the sail ties, I heard one remark that sounded like something about not being able to understand sailboats.

The next thing I knew was one of the two had ridden directly toward the starboard side of Prince of Whales. He turned quickly, applied the throttle and sprayed water all over the side of the Flicka, Dennis and myself.

This action took me completely by surprise. I didn't expect someone that appeared to be between 25 and 30 to act so irrationally. The two left as quickly as they arrived and there was little chance of getting the registration numbers. Later, we discovered water on the top of the ice box in the cabin.

Dennis and I discussed the incident for a short time. I was angry and Dennis appeared to be as well. Up until this incident, I had always felt that was just a different form of fun on the water. I was amazed to see how one person's stupidity changed my reference point.

We entered the marina and returned **Prince of Whales** to the slip. After dinner at the marina restaurant, I still couldn't believe that I was annoyed about the PWC.

The day had been fun. Dennis proved to be a skilled sailor, one with a considerable amount of time aboard a Flicka over the last ten years.

Looking back on the PWC incident and the observations made by Dennis about where they usually operate, my feeling is that I don't understand their short sightedness.

First of all, how long can you enjoy bouncing along the wave close to shore? While they looked down on us for being just sailors, maybe I really don't mind.

Consider this: we were aboard a sailboat that could be out for the day, a week or a year, maybe longer. Maybe the guy was right, he didn't understand the simple perfection of the Flicka. Small yet powerful and capable, something that his smaller PWC is not.

While we were much slower, I would hate to be tied to the gasoline tether that keeps him close to the marina. Even worse would be the inability to wander as time, the winds and provisions permit. Our destination could be some waypoint near a marina, a harbor across Lake Michigan, another country across an ocean or some far land on the other side of the world.

I contacted an Illinois Water Conservation Officer several days later, telling him of the problem. There was little he could do without the registration number of the PWC. He did go on to say that some of the harbors don't allow PWC to enter. He said that the problem was unfortunately a common one.

It had been a great day of sailing. One that Dennis told me it was a salesman day of sailing. That perfect day salesmen pray for when trying to sell sailboats. Everything went well, wind and wave conditions were easily handled by **Prince of Whales**.

Thanks, Dennis

Two year ago, Tom had the only sailboat registered in a certain county of Montana. He sailed in an area where tacking in time meant he could be assured he would not smash into enormous rock cliffs on all sides of his mountain lake.

Tom sailed a Catalina 22, but is hoping to purchase a Flicka. He also is a meticulous researcher and organizer and has compiled an amazingly thorough file on the Flicka numbering perhaps a thousand pages. He now lives in Minnesota.

**Vane from page two**

A lead weight was needed: but how big and how heavy a lead weight? Hmmm.

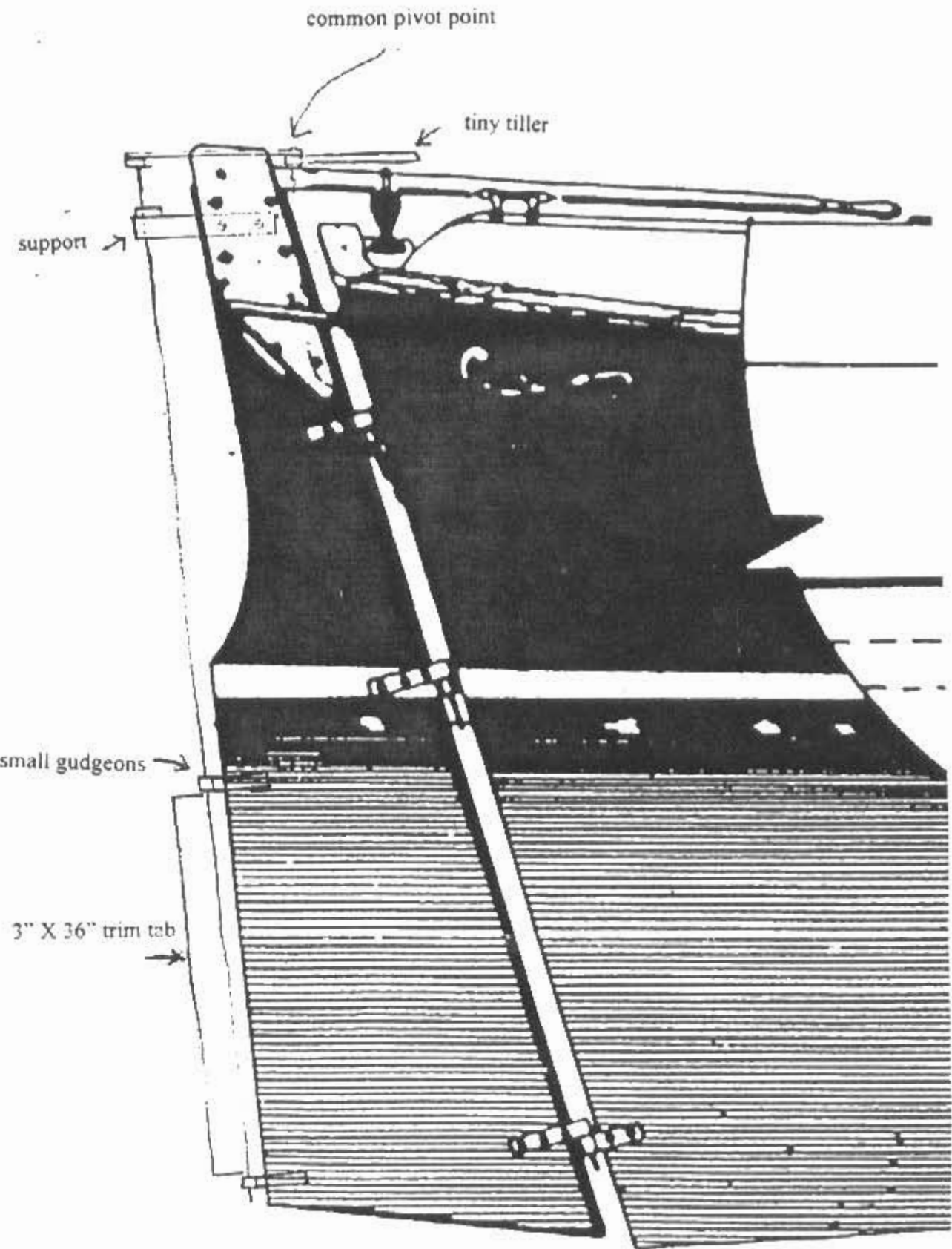
At the hardware store I bought a large bag of washers. I saved the receipt. At home I stacked the washers on the rod below the axle, then taped more on until the vane blade stood upright and would respond to my blowing on one side of the sailcloth. I took the washers back to the hardware store, weighed them at the scale by the nail bin, then got a refund at the cashier. At a scrap yard I bought nineteen pounds of lead weights.

I looked up the density of lead per cubic inch, and with a little math I remembered from high school, I worked out what size metal can I would need to melt the lead into so it would fit on the vane. The next time I was in Safeway, (Editor's note: Safeway is a large grocery chain in the western US) I took a tape measure with me and walked a few aisles looking for a can just the right size, hopefully with something good inside.

I melted the lead scrap in an old iron skillet over a small hibachi barbecue in the driveway. Nowadays, I use a propane torch and a big pair of pliers. Before pouring lead into the can, I stood up a piece of galvanized pipe in the middle holding it up with a wire. This creates a hole through the lead so i can slip it onto the vane. After letting the melted lead cool in the can, it took pliers, a hammer and chisel, lots of muscle and a few "magic words" to peel the metal can off the cooled lead.

To aim the vane blade into the wind, I made a "clutch" of two fourteen inch diameter discs made out of wide mahogany lumber. I now use polyurethane cutting board material. Around the circumference of the top disc, I drilled a series of holes in evenly spaced intervals. Around the circumference of the second disc, I drilled holes in *odd* spaced intervals.

see vane page six



**Thoughts from your editor...Dennis Pratt**

The season is nearing the end for us in the midwest, too soon as usual. Spring never did come to the Chicago area this year; summer did.

This issue was delayed because my computer was hit by someting that caused the motherboard to be inoperative. After some running around with the computer and some trial and error work in the shop, I finally left with a different computer that had my hard drive installed in it.

There continued to be problems that still exist, but the data unsaved on a disk was eventually saved and nothing was lost. Just after the computer arrived back home, I left to visit my son in Seattle for two weeks and obviously was unable to complete this issue before now. I'd like to thank everyone for their patience and to again ask for new photographs and article materials for upcoming issues.

# Letters...

Dear Mr. Pratt:

I got your name from Pacific Seacraft. I have been a Flicka owner since 1983 hull # 276. I bought her from Tom Pinney, the first boat he sold in his dealership. She was shown at the Miami Beach Boat show in '84. I originally named her *Samuel Gay* for an old uncle of mine, but my wife always liked *Maggie Mae* from the Rod Stewart song so I renamed her.

I had her in Fort Lauderdale until '88 when I moved back to Tennessee. In '94, I moved her to Savanna, GA and in '95 to Pensacola. All the moves were by trailer. I've cruised the upper Keys, the Tennessee River and am now planning a two week cruise along the Gulf Coast. There are two or three other Flickas in the area. The most notable is a gaff rigged Northstar named *Wooly Bully*. The owner, so I've heard is the author of the song sung by Sam the Sham and the Pharaohs. I've not met him yet but understand he's quite a character. I'm looking forward to the newsletter and hearing about other *Flickas* on the Gulf Coast.

Prince Riggs  
Cantonment, FL

Hi Dennis,

I'm finally getting a check to you. Thanks for your efforts with the newsletter. I have been communicating with TC Vollum via email about her Pacific trip aboard her 81 *Flicka Takoroa*. She has been extremely helpful and interesting.

We currently have seven **Flickas** in our harbor, although one is leaving to spend the summer in Alaska.

Jill  
Laguna Niguel, CA

## Vane by John Hazen Jr.

This will allow me to drop a large bolt through holes that have lined up somewhere when I turn the vane mount (much like you do to an Oreo cookie) to aim the blade sideways into the wind.

On the vane axle in the middle is a pair of outstretched arms each seven inches long. These arms are perpendicular to the vane blade. Low stretch Dacron line is tied to the ends of the arms. The rest of this cordage led through pulleys, across the cockpit, to the end of the tiller. The whole thing looked pretty cool hangin' off the end of my blue and white sloop. I was dyin' to see if it worked.

The next time I went sailing, I took a friend with me. When we'd sailed out to a big open area in Kaneohe Bay, we quickly aimed the vane blade into the wind, connected the cords to the tiller and let go. Whoa! The boat veered off the wind, the boom slammed to the other side of the boat, and two puzzled sailors grabbed the tiller away from the errant control of the piece of junk I had created. After getting the boat back under control, I scratched my head wondering what had happened.

"Criss-cross the line! We forgot to criss-cross the lines!" I whooped as it came to me. We aimed the vane again into the wind. I connected the lines to the tiller again,

then let go. Two pairs of eyes were glued to the compass card in silent expectation. The boat bounced and bobbed as it sailed. The compass card turned. The vane blade tilted to one side. The compass card returned. The vane blade stood back upright...

"It works! It works!" We both cheered. "Tahiti here I come."

Ten years later, I learned that a cutter rigged Flicka sails much differently

than a Cal 2-24 sloop. The "barn door" rudder on the Flicka weighs as much as I do. A vane blade to control it would have to be over six feet tall.

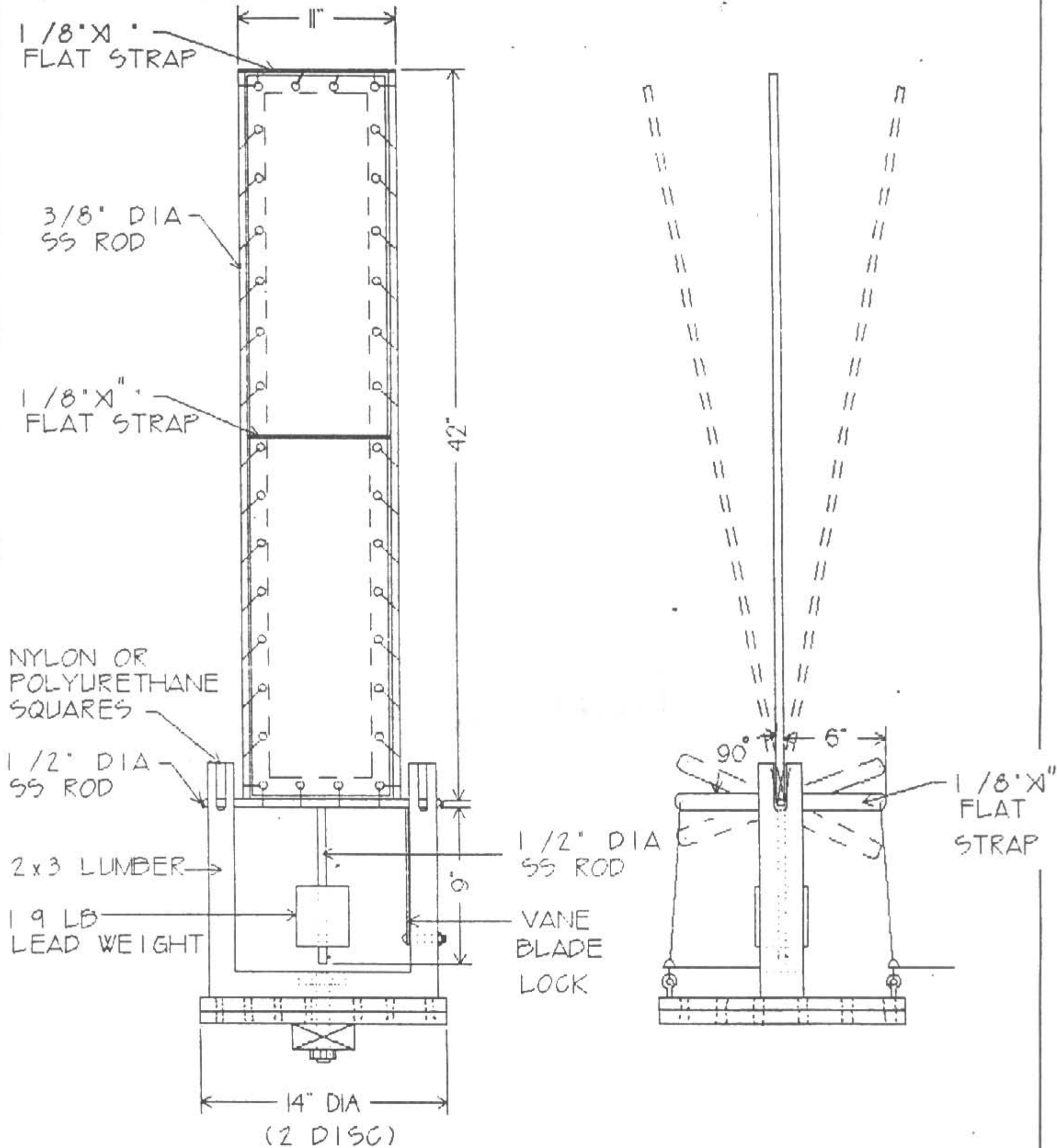
After walking around the boatyard looking at other boats, I realized I needed a trim tab to control the heavy Flicka rudder. I found some small gudgeons in a West Marine catalog, bought a long stainless steel rod that fit through them and a piece of three inch wide stainless steel bar, three feet long. I had the bar welded to the small long rod. I installed this trim tab to the back of the rudder the next time I hauled out.

Turning the trim tab is accomplished by a pivoting parallelogram made of small pieces of 1/8 inch thick bar stock mounted around the cheek blocks of the Flicka's rudder. A tiny tiller is attached to the parallelogram and pivots over the point in line with the pintles of the big rudder. This location allows both tillers to pivot independently of each other. With this little effort on the tiny tiller, the trim tab controls the big rudder, and I can steer this three ton boat with effortless ease. The same vane design that worked so well on the lighter Cal boat now works really nicely on the full keeled Flicka. The small lines from the vane arms are not criss-crossed and are not in the cockpit. The lines run through small Harken bullet blocks to the tiny tiller just under the traveler.

With some thought, some resourcefulness and some study, I've come up with a self-steering vane that cost me about \$200. to build. This simple, strong, competent self-steering apparatus is a source of pride, pleasure and freedom. I hope sharing my experiences with readers may start you thinking. It's no big deal.

**John Hazen Jr. sails Flicka #22 *Windard Pilgrim*, and is currently based in Port Townsend, Washington.**

### The windvane according to John



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Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Do you own a Flicka \_\_\_\_\_ Hull # \_\_\_\_\_ Boat name \_\_\_\_\_

Telephone (Optional) \_\_\_\_\_

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