VEGA

Newsletter

Sidney A. Rosen, Editor (407) 352-9250

Jun/Jul 1996

Voice of American Vega Sailors

No. 6/7 - 96

Next stop Hawaii

for more members to order special "BTG" ffing box grease. Send \$7.50 per tube to Sid Rosen TODAY!

S.V. "LORNA DOONE"

RALBOA, 29 APRIL '96

Miratiores Locas of the PANAMA CANAL
as seen from Muratiores Bridge.



DEAR SID:
SOME MAGNIFICENT FAST
SAILING COMING FROM
ANTILLES TO CRISTOBOL
VIA DARIEN. MADE CANAL
TRANSIT 27TH/28TH APRIL
LEAVING FOR HAWAII ON
2ND MAY - ALL GOING WELL
REGARDS:

MR. S. ROSEN 10615 WHITMEN CIRCLE ORLANDO, FL - USA 32821



If you can still find an old copy, read "Log of the Mahina" by John Neal. Pacific International Publishing Co, Seattle, WA 1976 Meet
Larry
&
Ann
Berklind
&
"MAHINA"



David Bolton comments about Tony Skidmore's solo circumnavigation:

4540 Bissenden Place Victoria, B.C. V8N 3KY Canada 4/17/96

Dear Sid,

We have just returned from our wayfaring travels of five months in New Zealand. We hitch-hiked most of the time and went to the most northerly point on the north island., the Cape Reinga lighthouse from where you look down at the conjunction of the Tasman Sea and the Pacific Ocean which Tony Skidmore would have passed through on his way north to New Calendonia and the Coral Sea. He writes about that so casually to the newsletter. As he sailed up the coast to round the Cape to Starboard lie Chile and astern Antarctica. If the wind changes and comes from the South in these waters, in minutes there can be a drop of up to 20° in temperature.

Tony it seems left Durban on 31st December and having heat to windward all the way around the Cape of Good Hope decided not to call in at Capetown but kept on "rolling" on for St. Helen - then decided to by-pass St. Helena & arrived in English Harbour, Antiqua around the end of March. So having crossed the Indian Ocean some 5000 miles in one leg it now seems that he sailed single-handed, nonstop, from Durban to the West Indies in about a three month period! I wonder what distance that is ? (7000 to 8000 nautical miles?)

I'm glad to see that Larry and Ann Berglind of Seattle and the "Mahina" wrote to you to join the association. We met them in Genoa bay in the Gulf Islands last summer and gave them your address. We were bow to bow at the dock. I took a good photograph of them and "Mahina" which I thought you might enjoy having (enclosed).

Now that we are returned I hasten to enclose my \$12. U.S. Money order to cover my 1996 dues. I had hoped to have the burges and adhesive tape on my return but nothing has arrived. See enclosed copy of my letter of 9 Nov. '95.

With kind regards,

David Bolton.

* Editor's note: For anyone who doesn't know, the Vega "Mahina" achieved notoriaty in John Neal's book "Log of the Mahina", Pacific International Publishing Co., 1976. This is an account of John's voyage from Seattle to

Another problem was the fuel system. The surveyor had said that the fuel filter was not a legal type for use with gasoline and that the fuel line was not up to specification. I went to Boat US looking for a new filter and fuel line. The fuel line was no problem, but the filters they had were exactly the same as the one installed on the boat. I decided to replace the fuel lines and leave the filter alone. My big problem was with the fuel fitting on the Solex carburetor. The existing fitting was a one piece, straight in type, that put a big loop in the fuel line and placed it dangerously close to the flywheel. I decided to replace the fuel fitting with a 90 degree type that would allow the fuel line to drop straight down towards the bilge. I removed the old fitting and with a little shopping around found a 90 degree unit with the same thread and diameter. I took this home and installed it. I finished all the other work with the fuel system and turned on the petcock. Fuel streamed out of the carburetor. I checked the fitting and decided to tighten it a bit more. I had replaced the fitting carefully knowing that carburetors are made of soft material and over-tightening things is inviting disaster. I could tell that this fitting was not tightening correctly. I removed the carburetor and brought it in to the workbench for a closer inspection. I was disheartened by what I found. The "original" fuel fitting was not the correct size. The real original, of course, is a banjo fitting with hollow bolt and copper washers. You can point the banjo in any direction to lead the fuel line cleanly away from the engine. This type of fitting tends to leak and I'm sure some previous owner thought it would be a good idea to replace it with a conventional one piece thread in fitting. Its too bad they didn't match the diameter more carefully! What had happened was that the mismatched diameter had split open the top of the carburetor body. I'm pretty sure this problem started before I got my hands on the unit, because careful inspection exposed silicone caulking deep inside the threads. This was very discouraging as I figured that I had a junk carburetor and slim chances of finding a replacement.

Solex is a major carburetor manufacturer, their products having been used in many European cars. I called all the likely suppliers I could think of and came up empty handed. I managed to locate Solex in France. They had been bought by Magnetti Marelli and moved all the carburetor operations to Spain. I called and wrote to Spain but never got a response. I was unable to get any help from the Vega Owners Association either. I got a call from some one who said, "Don't repair the carburetor, replace the engine with a diesel as fast as you can." That's throwing the baby out with the bath water isn't it? As an interim measure I cleaned the carburetor and the fitting carefully and epoxied the fitting in. I then went over the exterior with two more coats of epoxy. I was very nervous about this and had intentions of replacing the carburetor as soon as possible. As the season progressed it became apparent that this was going to be the permanent solution. I still don't like this set up and I'm very careful to check the fitting before operating the engine, but it works well. I have no gasoline seepage anywhere in the system and my constant concern will keep me cautious, always a good attitude with gasoline inboards.

With the carburetor repaired, I went ahead and fired up the engine. It started right up and ran well. I checked all the usual things, which were all in good shape, and gave the system a clean bill of health. Vibrations from the engine exposed my next problem.

The combi drive of Cinderella had been rebuilt by the boyfriend of the previous owner. He, too, was a Vega owner and he seemed a competent mechanic. One problem he had tackled while rebuilding the combi was the problem of the prop shaft bushing. This, he told me, had been removed and rebuilt using custom Teflon bushings supplied by his friend who owned a machine shop. His description of the fix sounded like an excellent solution to another of the many known Vega problems described in the Vega manual. My problem was not with the bushing, but with the epoxy work to hold the bronze bearing housing back into the keel. Epoxy and cloth had simply been wrapped around the exposed part of the housing with no attempt to even clean off the old bottom paint on the hull. When the engine was run, this mess cracked and fell off leaving the bushing housing slopping around in a large hole in the keel.

This really got me angry. I called the previous owner, who by now really didn't want to speak with me as I had called regarding some of the other problems already. I spoke to the boyfriend and he confessed that he had not had a hand in reinstalling the fitting, he just got the Teflon bushings built and really knew nothing about the glassing job. In any event, he said it was a simple matter to remove the propeller assembly and re-epoxy the bearing back in. Not so easy at all. I could not get the combi propeller apart to save me. According to the manual this is a straight forward job, take off the big bolt, (now with the zink attached), remove the four allen screws, (none of which were stripped or damaged), and split the casing. No way. The propeller housing just would not come apart. I decided that if I kept at it I would surely manage to damage the thing and then I would really be in a pickle. There had to be another way. I studied the problem for a while and decided on a solution.

I drilled three 3/16" holes along the side of the keel where the housing sits in the hull. I then took a caulking gun and squeezed in silicone caulking, tuning the fitting as I caulked, until I was sure that I had a good bed of caulk securing the fitting and keeping it stable in a lateral position. When cured, I cleaned off all the excess caulk and ground down the area on the hull where the glass and the bronze come together. I went over this with several layers of fiberglass cloth and epoxy. It was a neat looking job and held the housing securely. I'd like to say that this has worked out well, but when I hauled the boat I found that the fitting was loose again. Not as badly as before, but it will need attention this winter to get it right. Does anyone know the secret to getting the propeller hub apart? With the hub removed I can properly clean the area around the bearing housing and fill it with an epoxy/glass mixture.

The boyfriend of the previous owner had advised me that I would do well to add a throttle to the boat, bypassing the combi drive synchronized mechanism. A close inspection of this system

proved to me that he was right. I could see that it was never going to work well the way it was. I looked at several throttle mechanisms in boat supply stores. None of them looked like what I needed and all of them were quite expensive. All I needed was a simple cable that connected the carburetor throttle to a control lever. A trip to Wal-Mart for lawn fertilizer provided a perfect solution. There in the lawn mower department was a \$4.95 Murry mower throttle. It consisted of an all-plastic throttle, a plastic wrapped spring sleeve and a steel inner wire. Its not marine grade, but with annual grease it will probably last ten years and for \$4.95 I can replace it annually. The amazing thing is that the throw of the throttle is exactly the same as the throw on the carburetor arm. It even has a detent that holds a medium throttle setting that puts the boat right at hull speed. The darned thing works like it was made for the boat. Installation only involved drilling a small hole in the carburetor throttle arm to connect the inner wire, drilling a 1/4" hole in the cockpit floor to pass the cable, and fitting a half round piece of one inch doweling onto the cockpit wall right by the combi drive lever so that the actual throttle connected to the side of the cockpit as though it was bolted to a lawn mower handle. Removing the linkage between the throttle and the choke aids is adjusting throttle and choke for starting.

By this time it was getting into May. The American Yacht Club in Newburport, MA where we moor was open and I was missing some good sailing days. If I wanted to launch in June I was going to have to get a bit less fussy with my repairs and accept the boat the way it was. I finished rebuilding the interior with help from my girlfriend, Denise. Denise's nickname is Cinerella because she helps me with my housework, so the boat is really named for her. Naturally I assigned her the job of washing all the pieces before we reinstalled them in the boat. All the cleaning and washing made a world of difference to the interior. We also took apart all of the cushions, replacing the foam rubber with new material and washing the covers thoroughly. Have you ever seen black bath water? With everything reassembled and clean it is a very nice interior. It reminds me of Gypsy caravan wagon with its arched roof, narrow companionway and wooden construction.

Launch day came at last on June 3rd. The launch went uneventfully. The engine ran well and the combi drive worked perfectly. What a difference between a twelve horse power inboard and an eight horse power outboard. The Vega has torque and really powers through the water. Heck, you can even use reverse to slow down. I sure couldn't do that with the Cape Dory! Something else I notice right away was that you could turn the boat around in about a fifty foot circle. The cut away on the forefoot really helps. It always seemed that I needed a half a mile to get the Cape Dory turned around. The boat seemed to make good speed, but that, too, was another problem. Neither the knotmeter, the depthmeter or the loran worked. Eventually I got professional help to get the gauges working but the loran looks like a lost cause. I suppose the there is a hand held GPS in my future.

Stepping the mast made the next problem apparent. All of the standing rigging had been replaced by the previous owner two seasons back. It was all in excellent shape, but it was all too long. With every stay turned right down to the last thread the rig was just barely tight enough. Furthermore, with no adjustment left, there was no way to tune the rig. I fiddled with the fore and back stays, which had a little adjustment and got the rig "good enough". A project for next year will be to correct this problem. According to the original Vega manual, (I actually have the original documents for this boat), the forward lower shrouds should be tightened to put a bend in the mast. Without any adjustment left this could not be accomplished. I think that the boat suffered to windward because of this. I could only get about 100-110 degrees tack to tack and from what I have read about the boat it should be able to do 90 degrees. My repair plan is simple. Rather than replace all the rigging, I'm going to build a 3/4 inch shim to sit under the mast. By raising the mast I will shorten the rigging enough to allow for tuning the rig. It concerned me that deck compression could also be causing this problem, but I have not been able to find any evidence of compression in the deck, bulkhead, or crossmember.

By the Fourth of July we had managed to get in a few good days of sailing and one overnight trip. The boat sails well. It does particularly well on a close reach and is very pleasant on a beam-reach. We sailed back from the Isles of Shoals with a friend of ours in a Catalina 27. He is a very good sailor and gets all that can be gotten out of his Catalina. Despite our lack of experience we stayed right with him for eighteen miles, even passing him when the wind came up a bit and the chop increased. Ultimately, he beat us into port. We had to really pinch the wind to make the mouth of the river where we moor and the Vega could not run as close to the wind as the Catalina. On the Fourth of July we hit our next major problem.

On the Fourth, Denise and I headed out towards Cape Ann and put in that evening at a small inlet called Folly Cove. Denise gets nervous when I sail into an anchorage and insists that I start the engine and have it running. When we went to start the engine it would turn over but not really fire up. I tacked around and headed back out to give myself some room to see what the trouble was. With a bit of coaxing the engine started but, was way down on power. I had noticed some knocking in the morning that I had not heard before but did not connect the two problems right away. We used the engine again the next day, it ran but was still down on power. The following Thursday I took time off from work to go down to the boat and find out what was up with the engine. I really had no idea what the trouble could be. I checked the plugs, the points, the wires, the carburetor, but I could find no problems. The only symptom was that power was way down, so down that I could hardly get in to the dock. I noticed that switching both batteries to off helped and wondered if that could be related. Relying on a useful tactic, I started talking to other members at the club. Usually someone has a good idea. When I described the problem to my friend Tony, he quickly replied, "That's obvious, your head gasket is blown." It made sense, but it wasn't obvious. I returned the next day with a compression gauge; fifteen pounds in each cylinder. It sure was looking like a head gasket failure.

Getting the head off of a twenty-five year old engine is not easy, even if it is just a simple flathead engine. It took a lot of heat, penetrating oil, sweat and pounding to do it, but in four hours I had the head off, no parts broken, and yes, the head gasket was blown, right between the two cylinders. That would explain the knocking and the loss of power. All I needed was a new head gasket and I would be back in business.

Head gaskets for Albin 022 engines are about as available as Solex 26-VBN-2 carburetors. It quickly became apparent that an original replacement was not to be had at any price. I called B.G. Peck, a gasket company in Lawrence, Ma, to see if a custom gasket could be made. Yes, they could do it, but a solid copper gasket would cost several hundred dollars and take a few weeks to make. Also a solid copper gasket would probably leak where the old block and head had corrosion. I went to plan B. The representative at the gasket company was a sailor and very sympathetic with my problem. He listed off a few materials that would probably work. All were soft and could be easily cut with an Exacto knife. He even offered to give me some samples to try. I drove to Lawrence and picked up three, square foot sized, pieces of material. When I got home I took out a blow torch and tested the samples for heat resistance. Two of the pieces sort of melted and burned, not ideal material for high temperature applications. The third sample, called Graphoil, seemed insensitive to heat. You could put the torch right on it and it did not even get red. I decided to do a test.

An Albin O22 is really 2 lot like a Briggs and Stratton engine. They are both flat heads and the bore of one Albin cylinder is close to the bore of a 3.5hp Briggs. The only big differences between them is that one is air cooled and one is water cooled, (that and the fact you don't rely on your mower to save your bacon in a gale, rip tide or other emergency). I pulled the head off of my lawn mower and cut out a new gasket made from the Graphoil. After reassembly I went out and mowed my lawn, giving the machine about an hour and a half work out. After letting it cool, I tore down the engine and inspected the head gasket. Interestingly when you compress Graphoil it becomes very dense. It adheres to the head and block so that when you take it apart it does not come off in one piece. You have to scrape off some of the remaining pieces. The bottom line was that it had worked fine. There were no leaks and no signs of burning around the cylinders. I decided to give it a whiri in the boat. I made a gasket for the Albin and another gasket for the mower. I put a Graphoil gasket back in the mower figuring if it ever blows I'll know to plan on a boat failure as well. Of course, I hope that I will be getting more hours on my boat engine than on my lawn mower.

In the process of making the gasket template I had noticed that the water passages on the head, which are only about 3/16" in diameter, were partially clogged with salt deposits. Notably the passage between the two cylinders was totally blocked. No doubt this had a lot to do with the gasket burning out in this very spot. I cleaned these passages and made a note to clean the passages in block as well.

The next day I went back down to the boat with the new Graphoil gasket. I felt pretty good, having resolved the cause of the failure and coming up with a resourceful solution to the problem. I set to work in a good mood. The first thing I did was to clean the water passages in the block. They were not as bad as the head, but were partially clogged. To do this I used a #2 phillips screw driver which fit nicely through a clean passage and ground the salt out of a clogged passage. When I punched through the salt in the center, port-side passage, the screwdriver extended down and seemed to pass into a mud flat. Whoa, I though, what's this? I started poking around in the other passages and soon realized that there was at least an inch, maybe two, of sludge and corrosion lying in the bottom of the cooling chamber. I took off the freeze plate on the port side of the engine and scraped out a few handfuls of black, dirty grit. The passages between the cylinders was totally clogged with what I think was iron rust residue. I disconnected the water line to the sink and, using the foot pump, flushed the chamber clean. There was at least a cup of this crud lying around the water passage. While I had everything apart I inspected the cylinder bores and valves. They appeared to be in excellent shape. Reassembly only took an hour or so and liberal use of Never Seez should simplify disassembly if I ever have to repeat the operation.

Once assembled, I took a compression reading; 60lbs on one cylinder and 75lbs on the other. That concerned me. I fired the engine up. Wow! It had never run this well. You couldn't stall the engine. Even at idle, full forward to full reverse on the combi control made the boat just stop and start going backwards. The engine had never run well with the combi set to the full down position, (maximum prop angle), but now you could idle with the combi fully down and get about tour knots in calm water. I made some adjustments to the carburetor which helped get the RPM pick-up smoothed out. Now I had a really fine running engine. After running the engine for a while I rechecked the compression and found 85lbs in both cylinders. I kept track of the engine run time and I logged about twelve hours before I had to haul the boat out for the season. That isn't enough to prove that the Graphoil gasket will hold up over a long period of time, but if the engine continues to run the way it is running now I will be very pleased with it.

The head gasket was the last of our major problems for this year. Now the boat is out of the water, safely parked in my yard, and I have a modest list of things I would like to get done before next season.

Vega #718 has apparently had a history of cruising. It was requirement at some point, and appears to have been fitted with a number of antennas (now gone) that may have been used for short wave radio. Something about the boat make me believe that its original owners were serious sailors and that it was only later in its life, (perhaps after an insurance salvage), that it fell into disrepair. I don't know that I'll ever do a full restoration on the boat but I think I can keep it in usable condition and enjoy it as a day sailer and occasional weekender.

The question I ask myself is, "If I had it to do over again, would I buy the same boat?" I think the answer with 20/20 hind site is no. There were too many problems with the boat and I don't think I will ever have enough faith in it to take it more than a few miles off shore. Then again I do like it more than the Cape Dory and those new sails....

November 29th 1995

Sid Rosen 10615 Whitman Circle Orlando, Florida 32821 JIM ALLEN 1539 PALAHI PL VICTORIA, BC CANADA V8N A8 PH: 604-7215479 HULL # 2548 - 1974. "SUNTONY"

Dear Sid:

Please find enclosed money order for 1996 dues. I've been refurbishing my Vega over the last 18 months and maybe some of our members would be interested in hearing about what I have done (for better or worse !).

I purchased my boat (Hull # 2548 -- 1974) in San Francisco in 1993 and trucked her up to Victoria. She was just what I was looking for—cosmetically tough but structurally sound. The engine had 2 big holes in the manifold and no compression. As a result I was able to purchase her for a very reasonable price. I transported her to my home and proceeded to tear her apart. I sold the engine and combi gear for parts.

Tony Skidmore who I'm sure you have all read about in our newsletter (as he continues his singlehanded voyage on "Lorna Doone) also lives in Victoria and I had the opportunity of seeing what he did to his Vega in preparation for his trip. His boat is an absolute masterpiece of reconstruction, refurbishing and function. If any of our members ever get a chance to meet Tony and view his boat they are in for a real treat I I think I just about drove poor Tony crazy with all my questional Anyhow I borrowed (stole) a lot of ideas for my own project. I also plan on doing some distance ocean sailing so many of the modifications I've made would be of little interest to those doing sheltered water cruising. In fact many may question the necessity for some of the modifications given the fact that the Vega is reasonably well put together to begin with.

Following is a description of changes I have made to my boat : ...

- Longitudinal and horizontal foam and fibreglass stringers internally placed throughout the bottom sections of the hull from bow to stem, these were done with combinations of mat, and roving.
- 2. All sides of bulkheads (opposite the fibreglass tabs) substantially lap fibreglassed to hull and then thru bolted thru the tab flanges using quarter inch bolts and large fender washers for bearing compression. Again glassing was done with combinations of mat and roving. The objective of points 1 + 2 was to make the boat stiffer and eliminate high stress points. The boat certainly seems to have lost it's "furniture groans". I feel that the boat can now be driven hard if need, especially upwind, with less potential hull stress.

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- 3. Cut rudder apart at stock to check integrity of welds on torque plates into rudder blade -- they were fine. Reglassed with biaxial glass and epoxy resin. I felt this was worth doing for peace of mind considering the problems some Vega owners have experienced with their rudders.
- 4. Reinforced mast compression beam by doubling up fore and aft with 2 inch mahogany stock running the full width of the main bulkheads. These were epoxied and thru bolted thru original athwartship mahogany beam. See also point 5 below.
- 5. All interior wood surfaces are now covered with five sixteenth tongue and groove kiln dried yellow cedar. This is completely surface glued so as to add some structural stiffening to the existing bulkheads. As a result the main bulkhead is now one and one eighth inches thick and stiffer to resist warping from mast compression loads. These bulkheads are now well glassed to the hull and hopefully will distribute the compression loads to the hull and keel sections better than the previous small bolt and flange arrangement. The interior is all varnished and the rich golden hue of the yellow cedar with the redness of the Honduras mahogany trim looks rather attractive. This was certainly the most satisfying job of the whole project.
- 6. All bunk and settee tops I replaced with stiffer one half inch marine plywood and thru bolted them to the fibreglass flanges in place of the original screw fastenings. Again I feel this has made the boat stiffer (as well as getting rid of bunk sag!) I also deleted the side loading sliding doors and made all settee and under bunk storage top loading.
 - Fibreglassed foam stringers under flat seating areas in cockpit .
- 8. Fibreglassed plywood vertical supports from underneath cockpit floor to hull forward, centre and aft. This tied the cockpit well to the hull and really made a lot more rigid structure. This does not interfere with the removable cockpit floor which I also significantly stiffened with plywood and fibreglass.
- Fibreglassed in 2 wood stringers two inches by one and a half inches athwartships under foredeck (forward of where cabin trunk meets deck) to make deck more rigid.
- 10. Replaced original Volvo engine with a 2GM YANMAR. The price difference between the 1GM and 2GM was not that great and also the weight difference is only 80 lbs. I felt it would be nice to have the extra horsepower, fresh water cooling, smoother running and bigger alternator. The result has been good and the boat powers effortlessly at hull speed while at the same time working the engine adequately. The engine fit nicely in the existing space with some modification to the beds.

At this point any of you reading this may be questioning how much weight the above modifications have added to the boat. I kept a fairly accurate tally of everything

and with all the extra wood and fibreglass I added about 350 lbs. The new engine is 100 lbs lighter than the old Volvo so the net result is about 250 lbs ---- which puts the boat about three eights of an inch down on her lines. In my mind I think the advantages are worth the extra weight. However I do realise that any weight added to a light displacement boat affects the performance. I hope Per Brohall will forgive me!!

- 11. Removed starboard hanging locker in vee berth and thus enlarged the berth.
- Removed storage and sink arrangement behind head and rebuilt with a simple shelf and locker system.
- 13. Installed all new thru hulls and seacocks. Glassed in wooden blocks to back up thru hulls.
 - 14. Installed new "Par" head with antisiphon loops on both intake and outlet.
 - 15.Installed new "Whale " foot pumps.
- 16. Installed lexan in 4 forward windows with aluminium anodised frames inside and out and thru bolted. The large windows in the main cabin were removed and the resulting void was filled in with fibreglass. While doing this I also increased the thickness of the cabin sides in this region. I then cut out for and installed 2 Beckson lexan opening ports on each side of the main cabin. This makes for a much stronger cabin side less risk of being punched in by a wave and has the added bonus of giving the boat excellent cross ventilation. The visual effect has received many positive comments.
- 17. Installed 4 teak dorade boxes 2 opposite the mast region and 2 on top of the main cabin just forward of the sliding hatch garage. They have been kept, low profile and again I think the visual effect has been positive. These work very well and with the boat totally closed up ventilation is excellent. On the inside of the cabin the finishing rings for the dorade cabin entrance holes are inspection ports. These are normally left open but can be quickly closed by screwing in the lid with its. "O" ring. This stops the airflow and also makes them totally watertight from any water that ever managed to find its way past the dorade baffles in extremely heavy weather. The outside cowl vents can also be removed and replaced by caps in heavy weather if necessary.
- 18. Made new cockpit locker lids from one half inch marine plywood. These were heavily glassed. Also added 2 stiffening stringers on the underside of each lid.
 - 19. Installed new almond coloured arborite on all counter surfaces.
- 20. Removed fuel tank from bilge behind ballast. Had a new one fabricated out of thick linear polyethylene and installed it on the athwartships bulkhead in the forward part of the port cockpit locker. As a template I made a cardboard mock - up that would just fit thru the cockpit locker opening. The tank follows the curve of the hull and

Installed extends aft only as far as the forward edge of the cockpit locker opening. Thus it really does not take up too much effective locker space. The rear of the tank (which faces forward) is extended 2 inches beyond the outside dimensions of the tank all around thus creating a flange by which the tank is thru bolted to the bulkhead -- simple, strong and no chafe spots. The tank has an inspection port built into the top so it can be periodically removed and cleaned. Also with the linear polyethylene the fuel level is visible and a gauge is not needed. Tank volume is 72 litres. With the tank full the boat shows no tendency to list to port.

21. Removed forward water tank under vee berth. Made a duplicate of fuel tank and mounted it in starboard cockpit locker (72 litres).

The bulkheads that these tanks are bolted to, as earlier mentioned, have been substantially glass- tabbed to the hull and then thru bolted with one quarter inch bolts thru the fibreglass hull flanges. They are also glassed to the deck above, consequently I feel they should not have any problem handling the tank loads.

- 22. Glassed in between bulwarks at bow on deck from stem to 12 inches aft creating a continuous flat region on which to mount a substantial twin bow roller -combination stem strap --forestay and tack fitting etc. This fitting is made of stainless steel, welded and electropolished and thru bolted to the deck and bow (stem) with large aluminium backing plates under the deck. Aft of this fitting I installed a MUIR vertical axis manual windlass. The former water tank region became my chain locker with the chain falling just forward of the anchor locker bulkhead and leading down and aft into the former water tank region. At times I wish to use a lot of chain when anchoring and not having the water tank up forward gives me the luxury of both the storage space and the weight carrying ability to do this. The vee berth accommodation is not affected in any way. To each side of the windlass are 10 inch bronze cleats with again large backing plates under the deck.
- 23. In the bilge region aft of the ballast (where the fuel tank used to be what a filthy mess that was !!) I glassed in a vertical bulkhead so that when offshore I can store all of my anchor chain aft and low. This still leaves an adequate bilge region aft for water collection and bilge pump access. When I installed the new engine I put in a dripless stuffing box so the bilge is always nice and dry.
- 24. Top sides and deck have been spray painted with Awigrip 2 part polyurethane in oyster white with a wide kelly green cove stripe. I redid the nonskid with Awigrip griptex. This gives a really superb nonskid surface and is easy to apply.
- 25. Bottom of boat was dried out to an acceptable moisture level and then coated with about 30 ml of high solids epoxy as a water barrier in fact prior to final painting the whole exterior of the boat was sprayed with several coats of this epoxy. Final bottom paint was 1 gallon of Micron C S C.
- 26. New mast step fabricated in quarter inch aluminium and then anodised. Now mast and step are similar metals. Fabricated wings on step with holes in to attach

blocks for vang, spare halyards, spinnaker controls etc. The 2 inch hole in the deck for the ventilation system was glassed in. In fact the whole Vega ventilation system was removed.

The mast was refurbished as follows:

a) Removed roller furling gear and welded in holes in mast.

- b) Added a sleeve about 5 feet long in mast at bottom to reinforce welded region.
- c) Fabricated new stainless steel gooseneck and moved the boom position up 8 inches on mast (another reason for sleeving the mast).
- d) P V C conduit riveted into inside of mast to accept all mast wiring (no wire slapping)

e) Ethyfoam sheet sound deadening put up entire mast.

f) All halyards put internal consisting of main, spare main (and topping lift), 2 head sail, 1 spinnaker. All halyards are 10 mm Marlow lion braid low stretch rope --- no wire.

 g) New large section aluminium aerofoil spreaders (same length as old ones) with really beefy welded aluminium roots. (great to stand on).

h) Added masthead combination light with functions of trilight, anchor and strobe.

i) New combination steaming and halogen deck light.

j) Masthead VHF antennae.

- k) All standing rigging (except backstays) jumped a size to seven thirty second wire size.
- Backstay changed to twins (three sixteenth) so as to give clear access to stern and self steering vane.

j) Mast steps permanently mounted all the way to masthead. I used 14 steps

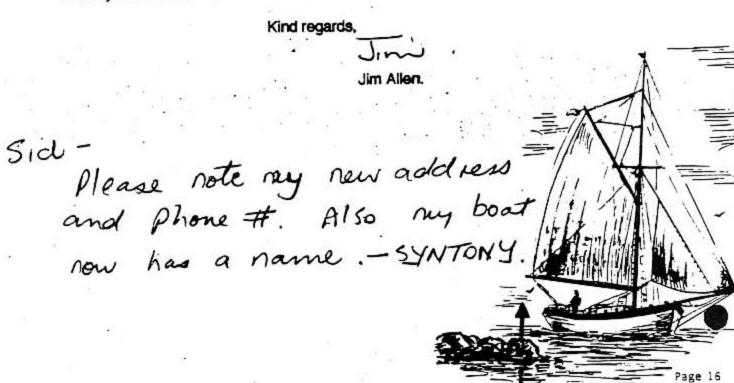
manufactured by Selden spars.

- k) Mast wet sanded and clear coated with a nylon plastic substance called NYALIC. This coating is tough, ultraviolet resistant, easy to apply and touch up after any abrasion or wear takes place.
- 28. My chainplates (u bolts) showed some wear so I replaced them with three eights stainless stock and put further reinforcing under and along the hull deck joint to distribute the shroud load a little more.
- 29. New boom made of stiffer section. As I mentioned above, I raised the gooseneck height 8 inches, this giving me enough clearance to install a stand up under boom bimini so I can have cockpit sun protection while actually under sail (hopefully in the tropics I) This folds back neatty against the twin backstays when not in use. I was buying a new mainsail anyhow so did not have to recut my old main. The bimini has removable zippered side and rear flaps which can be tied down to the lifelines and stern pulpit. Because of my desire to have the cockpit bimini I deleted the cockpit aft boom traveller and opted for a twin mainsheet system installed just forward of the dodger on top of the cabin to the side of the hatch garage. The sheets lead aft thru the dodger to harken cleats on the cabin top. Raising the boom up 8 inches enabled me to install a very powerful vang to control mainsail leech tension the new mainsheet system does not have a traveller to help in doing this. I installed a substantial stiffening

sleeve in the boom in regions of the vang and mainsheet bail. The only controls I have led back to the cockpit are spinnaker topping and foreguy and vang.

- 30. Installed new dodger using 1 inch stainless bows and fittings. This has turned out very strong and does not threaten to collapse if leaned against! For the fabric! used a material called Top Gun which seems to have most of the advantages of Sunbrella with the cleanability of vinyl. Just a further note on the bimini --- I had reservations about its visual appearance on the boat but! think it looks just fine.
- 31. Replaced primary winches with Barient 21 2 speeds (I bought these at a garage sale years ago figuring I would use them some day.) Trimming the 150 genoa is now a 2 fingered operation!
- 32. Built a removable table that locates on either settee berth such that a person can sit on either end of the settee and lounge or eat or write at the table. One sits fore and aft at the table to eat by having one foot on the floor and the the knee of the other leg flared out (as in a figure 4) under the table. I know it sounds very uncomfortable but unless one has hip or knee problems it works great. The table setup was not my idea and when it was suggested to me I was very sceptical about its workability. An advantage to this arrangement is that fore and aft movement in the boat is totally unrestricted. The mounting arrangement is very solid and I can still access the lockers behind the backrests without removing the table. I plan on leaving it mounted all the time location depending on which settee I want to sleep on. By using the legs and fittings of the old table I can still use my new table out in the cockpit.

Well Sid (if you are still awake!) thats about it. There are many other small details but the above is most of what I have done. Plan on sailing the boat a lot this summer and to try and leave here May of 1997. Hopefully wont have to inform you of what systems don't work!



Hi Sid -

Other than enough rain to make me glad that I live on a boat, it's been quiet here in Santa Cruz. Did a rip up to S.F. Bay last summer and spoke briefly with "Tern" (Felix Arts) on the way imo Alameda. I left the boat in the bay for the months of Sept/Oct & sailed on the weekends. I took out the poor old Albin engine and had it rebuilt. I was changing pluge every five hours on the way back home!

The total parts cost was about \$600 plus the same amount for shop labor. I only managed to get about 900 hours out of the last rebuild and hope to do a lot better this time.

The source for Albin parts as of December is:

Albin Kohponeter AB Box 115 S-681 Kristineham, Sweden Telephone: 011 46 550 150 00

FAX: 011 46 550 105 06

They were easy to deal with via FAX. A price was quoted in Kroner, I sent an international money order for the equivalent. The parts arrived in about 3 weeks.

Another possible source is:

AME Ship Equipment 3464 N.W.North River Drive Miami Fla

Tel: 305-635-2401 FAX: 035 634 1291 Ric also listed Tom Hall in Sausalito, CA but he is no longer in business

Anyone with questions about the Albin is welcome to give me a call at 408-475-5397.

I've enjoyed Tony Skidmore's letters - His comments on how the Vega moves internally in a seaway were interesting. I've bonded the tops of the bulkheads to the deck but there is still lots of movement around the cockpit and engine box. Wish I could fix it but can't figure out how

Had lots of fun using the ham radio on my trip - checking into the nets in Hawaii, Mexico & Cal. It's amazing how well a little whip antenna can work when conditions are right! Still looking for an inexpensive spare variable pitch prop for the boat!

If the burgees are stiull available, I'd like two. My check is enclosed.

PILLES # 935