

ENGINE - GASOLINE

The way the Vega is designed right now the gas engine Vega will not pass the Coast Guard Safety inspection. The reason is that the engine compartment is not positively ventilated under existing regulations. It will require a vent to get fresh air through the compartment and exhaust it out the stern. The inspector said the easiest thing would be to put a vent on the side. - Tyke Furey

You can put a cowl vent on and extend the hose down into the bilge. - Sam Amoss

When I took the head off my engine I first saw the cooling system. The water curves. The holes are about the size of a lead pencil. There was mud in them and I dug out what I could but there was no way I could get it all out. My engine has been running hot ever since I owned the boat, but the water coming out the exhaust is not that hot. I have changed the valves with the help of a man who works with me. I was losing compression in one cylinder. I also had to change the manifold coming off the side of the engine, that goes out the back. It wore through and sprung a leak. I am now on my second one. - Jack Berle

I thought I'd share the latest in my battle with the Albin Combi gas engine with you. After struggling with this engine for two years, I think that I've found the basic problem - at last. The engine hasn't run well since I bought the boat. I was getting a lot of oil into the #2 (forward) cylinder. Some of the oil was being burned, but after running the engine for 30 minutes or so, the plug would be heavily fouled and the engine would start bogging down and eventually stop. This sequence of events would be accompanied by an oily, smoky exhaust which gradually became darker until the engine quit. After the plug was changed or cleaned, the engine would start up and the sequence would begin all over again. Needless to say, I used the engine very sparingly, afraid that I needed a major overhaul that I couldn't afford.

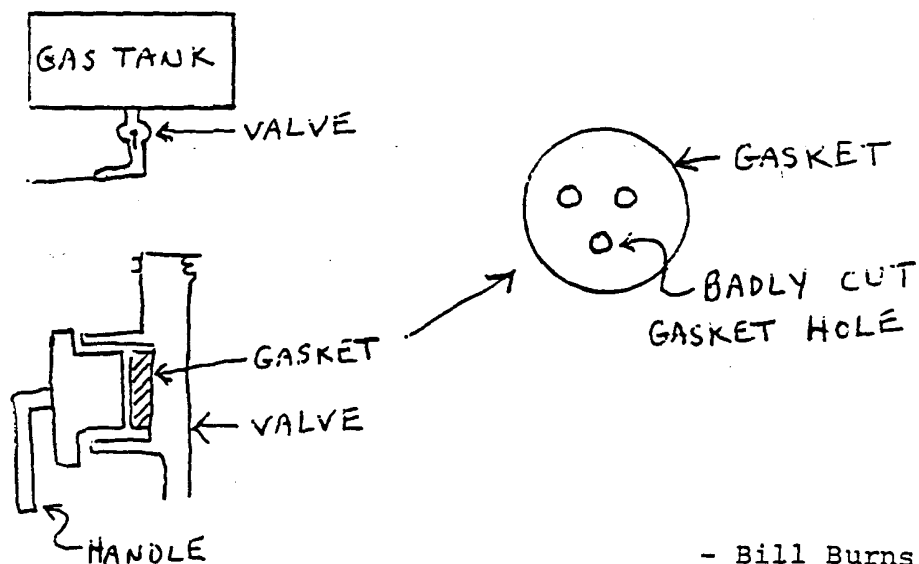
The first clue to the real cause of the problem came when the oil pressure light started staying on when I started the engine. When I put an oil pressure gauge on the engine, I found that I had very little oil pressure (3-4PSI). I then proceeded to dismantle the oil pump and associated pipes to see what the problem was. There is a small piston in the oil

pump that is spring loaded, so that all the oil doesn't drain back into the sump when the engine stops. This piston was frozen in the extended (closed) position so that oil from the sump was not getting to the engine. With the pump impellers running, oil was apparently being forced at fairly high pressure back through the #2 cylinder. I had earlier checked the compression and found that I had 95-100 psi on both cylinders, so I couldn't figure out why one cylinder should be getting so much oil past the rings. At any rate, I freed up the oil pump piston (part #10 on page 10 of the gas engine manual) and reassembled the pump. The engine started right up and the oil pressure went up to 25-30 psi. I ran the engine for an hour (the longest period of time I had ever run it) and then pulled the plugs. The #2 plug was only slightly fouled (possibly due to residual oil in the cylinder) and could tell from the exhaust that I was burning very little oil. Now I keep my fingers crossed for the rest of the season!

- Doug Smith

I have solved my engine problem! Basically, the engine - a gasoline model - ran for 30-40 minutes then backfired through the carb. I checked the gasoline, checked the filters, valves, electrical system, etc. The most puzzling event was a 10-minute shut down, and it would run for another 30 minutes; plus or minus. I also checked the compression - hot and cold.

Finally, I removed the valve on the gas line at the tank and found a gasket poorly cut; partially covering the fuel port. I checked the valve, reworked the gasket and valve, the engine ran 3 hours without a problem, and has run well since.



- Bill Burns

I have not had the trouble with the prop system experienced by most Vega owners. When the boat was relatively new, the original Albin engine and the variable-pitch prop were replaced with a Volvo MB10A gasoline engine and a conventional transmission and propeller. This 15 H.P. engine drives the boat very well -- even against strong headwinds.

- Bill Edelstein

Over the past three sailing seasons, I have had intermittent problems with the Combi-22 gas engine on my boat. Sometimes everything worked fine, and then without warning the engine would stop, apparently from lack of fuel, and usually in a critical situation. Most exasperating!

After many false attempts to fix the problem, and after great expense, the problem has been resolved. The resolution was simple and rather inexpensive when the problem finally was diagnosed. Water was getting into the cylinders, not due to a cracked engine block, cracked head, or defective head gasket, but rather by water being forced back into the engine from the exhaust system, caused by a muffler that would collapse on occasion. If the muffler had totally collapsed, the problem would have been resolved easily. The problem was the intermittent collapsing of the muffler.

A second problem developed due to all the work on the engine and fuel system trying to find the first problem. I have a 1968 vintage Vega, and on this boat a cylindrical copper gas tank was installed which has a built-in reservoir. Early on in the search for the first problem, I had removed the tank and had it professionally cleaned. What I did not know then is that algae was growing in the tank and that the cleaning did not remove the algae completely, so that it grew back again, causing the engine to die. (Adding inhibitor to the fuel on each filling will prevent this problem - Ed.)

Anyone with a Combi gasoline engine who has problems starting the engine or keeping it running might check these two areas. They are simple to correct once found.

- Dick Brauer

I'm replacing the old gas engine with a brand new Albin gas engine of the same type (O-22) purchased from Auto-Marine in Miami for \$2,000. Estimates to replace it with other engine types have run as high as \$8,000. I had the old engine stripped down and it needed so many parts that for a few bucks more I got the new engine. I hope to be able to install it using the old transmission and exhaust systems.

- Doug Smith

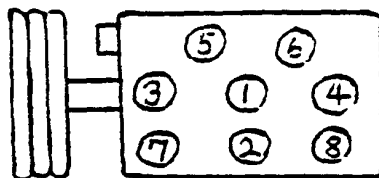
My manifold and exhaust developed a leak, so a lot of water was going into the bilge, needing immediate repairs which could not be done locally. Fortunately, I did have an exhaust system that I had purchased several years ago, but no manifold for a 1970 Albin gas engine. I finally located a manifold at Auto Marine Engineers in Miami, FL. They mailed it to me immediately, and the price was reasonable. The manifold and exhaust system are now in the boat and everything appears normal - again.

- Karl V. Larson, M.D.

We replaced our fuel (gas) line and installed a "Quicksilver" water separating fuel filter unit in the line. We had Deluxe Motorcycle Sales of St. Clair Shores, Mich., rebuild the carburetor. They are familiar with the Solex 26VBN carburetor used on the Albin gasoline engine. They preset it in their shop at a 1 to 14 mixture.

- Norman L. Stocking

According to Vosbury Marine, Annapolis, to tighten the head on the Albin O-22 gasoline engine, use 60 ft. lbs. of torque wrench pressure, with the bolts oiled, on the bolts in the following order:



★ The Vega dealer with gasoline engine parts in California (they may have more but my only interest was engine parts) is:

Tom Hall
P.O. Box 156
Sausalito, CA 94965
Telephone: (415) office 332-2788; home 982-5479

- Bill Burns

★ Another source for the Albin gasoline engine parts is:

Auto-Marine Engineers, Inc.
3464 NW North River Drive
Miami, FL 33142-4994
Telephone: (305) 635-2401

Albin Motors AB, Box 139, S-681 01, Kristinehamn, Sweden, should also be checked for gasoline engine parts.



Having just done a mechanical rebuild on my boat (#935; O-22 engine) I just thought that I would pass along some useful information which could be useful to anyone contemplating the same... First: why rebuild a gas engine? Well, though other owners might think me crazy, I wanted to retain the variable pitch mechanism (especially for motor sailing), and I liked the quiet gas engine. The savings (about \$3500.) and comparative ease of installation were also a large factor.

Tom Hall, in Sausalito, has been rebuilding these engines for years (he used to sell them). His basic cost for rebuilding the engine was \$1,000., plus \$300. for new valves and valve guides. My valves and guides had been ruined by water getting into the engine from the leaky exhaust system.

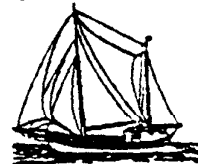
I would recommend owners with the jacketed exhaust system to be aware that if there is a hole in the coppertube, there will be water in it, only about 6" below the engine, with a direct path via the manifold to the pistons and valves. A way to check this might be to hook up a low-pressure air source to the transom exhaust outlet and listen for bubbling in the water jacket. The way I found out was by sawing the blasted thing apart after I found water in the cylinders when changing the plugs in the boatyard, after the boat had been hauled bow down by a travelift.

While Tom Hall was rebuilding the engine, I called Henry Gustafsson (thanks to the VODCA manual) and ordered the tail-end renovation kit. When the kit arrived (cost \$135. inc airmail), I installed the new operating sleeve and seals and the stuffing box - I had pulled the prop with the boat in the water. The prop and shaft came out easily just by using a mask and a wetsuit - no need to haul out! The stern tube was plugged with a tapered wood plug wired to a hose clamp on the inside of the boat.

Re-assembling the Combi mechanism was no problem - again, thanks to the VODCA Manual. I replaced the old exhaust system with a Yanmar mixing elbow and a waterlift muffler. The water injection point is about 8" above the manifold and hopefully the engine is now well protected from water damage. The cost of the new exhaust system was about \$250., including the elbow, stainless pipe, waterlift muffler, rubber hose and engine insulation.

I used the mainsheet tackle to lift the rebuilt engine from the dock and return it to it's mount, aligning the coupling to .002 using shims under the mounts. With everything hooked up, the engine ran fine, and at a much lower RPM than before. After 5 hours of running time, I torqued the head bolts to 60# per VODCA manual - unfortunately I broke two studs - they had rusted where they were in contact with the copper head gasket.

(continued)



The engine then went back to Tom Hall who replaced them all. The drilling out of the broken studs took 6 hours labor (2 additional ones broken on removal). I'm glad I didn't try it myself.

Everything is now back together and working fine! Tom says the engine should last about 1000 hours - given good care. The total cost of the job was about \$1,700. - a complete mechanical rebuild. In contrast, a friend further down the dock from me just had a 2-cyl Yanmar engine installed in his boat for about \$5,200, including \$900 labor. My labor was about four weekends at the dock instead of a boatyard.

Much thanks to the VODCA manual - I don't think I would have tried the job without it. If anyone is contemplating a similar job, they are welcome to give me a call at (408) 475- 5397.

- Ric Eiserling

