

## **O-200 Loses Power**

*AlCoha (AZ)* - I wish to share a recent experience I had with my O-200 powered Vari-Eze, N2CR.

While climbing through 6,500' enroute to Albuquerque from Goodyear my engine began running rough. The usual emergency procedures had no effect. I reduced power and landed at Falcon Field without incident. The engine ran fine at lower power. Upon landing I did a mag check and full power run up. Everything was normal. No roughness.

I removed the cowl and found nothing after a visual inspection. I tried to restart the engine but, after hand propping 1.5 hours in 108 degree F temperature, I gave up and headed home. (6 hours on 3 busses - not a very good day)

I returned the next day with tools and a spare carburetor. My effort was rewarded with good engine operation. I flew back to Goodyear believing my carb was the problem. I took my carb apart but couldn't find anything wrong with it.

About a week later I departed for Jackpot on the replacement carb. While climbing through 7,000', again the engine started running rough. Carb heat and mixture had no effect, but about 15 seconds after switching to the fuselage tank the engine ran smoothly. I switched back to the strake tanks to verify the problem and the roughness returned after about 30 seconds. I then switched back to the fuselage tank and returned to Goodyear airport.

It began to appear that something was restricting fuel flow from the strake tank. With the fuel line disconnected at the carb inlet fitting a flow check requires .5 gallon of fuel in a maximum of 3 minutes. My strake tank time was 16 minutes while the fuselage tank time was 9 minutes. Suspicion pointed to the gascolator located between the fuel tank selector valve and the flow sample measuring

point. However, flow from the gascolator drain was vigorous.

I replaced the gascolator filter and the flow check showed 2 minutes. The problem was solved!

The filter was effectively removing particles from the fuel and slowly becoming clogged. Under full power conditions, the engine was using fuel faster than the filter could supply it. Therefore the fuel level in the carb bowl dropped, effectively leaning the mixture, until the engine ran rough.

I have added a fuel flow check to my annual inspection procedures to assure specified fuel flow for full throttle operation. I strongly recommend that everyone do a flow check during their inspection also.



## **Springs For Sale**

Four pair of springs for the flush rudder control arms. \$5 per pair. Please call me at 703-698-9576 to check availability before sending money. Thanks, Steve Rothert.

## **Project For Sale**

Vari-Eze project ready for paint prep, 85% finished. Zero time Continental O-200, Loran, Nav-Com, primary panel w/instruments, Great American prop w/spinner. \$9800 OBO.

408-422-6158 or 449-2813.  
"Randy Ford"

## **Free Gas**

*Paul Adrien (NH)* - Come fly with the Northeast EZ Flyers. We mean it and we mean to make it easier for you to do it. At OSH 94 we will raffle off 20 gallons of fuel to some lucky new NEF EZ driver. The catch is that you have to come fly with us to collect the fuel.

## **Nav Aid Devices Address Change**

Effective in mid January Nav Aid Devices will be moving to:

Nav Aid Devices  
641 North Market Street  
Chattanooga, TN 37405

## **Nose Gear Door Actuation**

*John Vukos (WI)* - Dave Ronneberg showed me the basic design of the actuation mechanism while he was building the Berkut. He uses a two door arrangement. I went with one door. He just made the actuation link symmetrical on both sides of the spring steel (see sketch on next page).

The door is made of 4-5 plies BID laid up over foam stuck into the NG housing.

I hinged the door with two pieces of aluminum angle, bushed on the fuselage end, pivoting on two stainless bolts buried in the fuselage. I've seen piano hinge used too.

I located the optimum actuation link attachment/pivot point on the door by trial and error.

The actuation spring is made of 1" wide spring steel, the thickness depends on what width you find; I just hunted around until I found some steel that "felt right".

I put a gradual bend in the spring steel strap that keeps the door open when the wheel is not in the housing.

The actuation link is made of music wire, approximately 3/32" thick. The bend in the wire provides spring action in the link.

I used set collars from a hobby shop to hold the link on the spring steel and on the door hinge. I grooved an aluminum block to accept the actuation link, and riveted it to the spring steel.

This arrangement is simple, light, and works fine.