

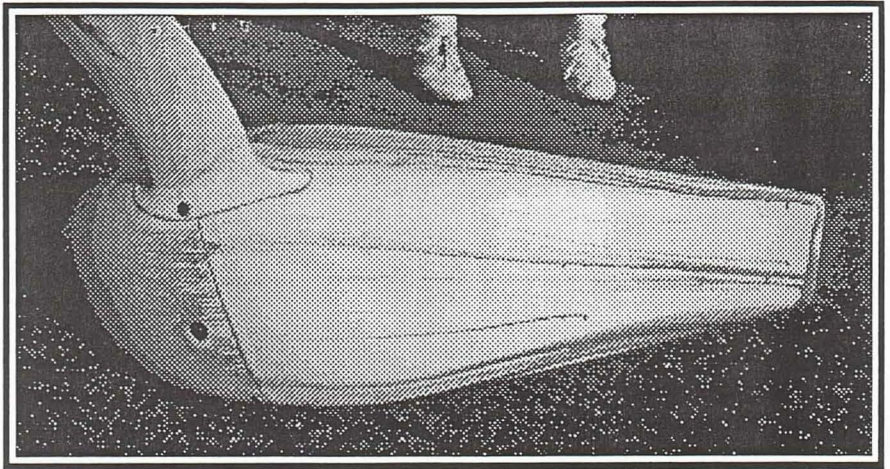
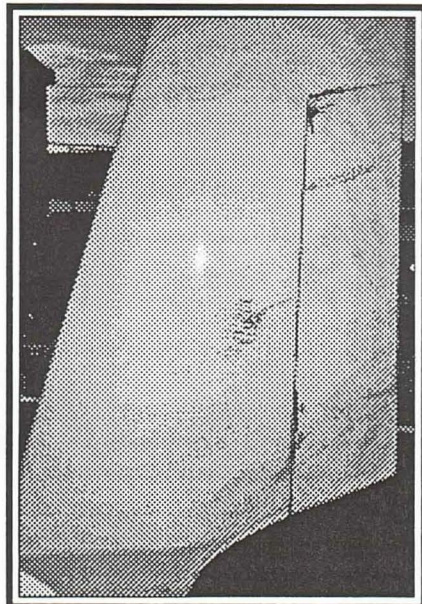
## Gary Hertzler's Vari-Eze

Gary Hertzler (AZ) - I am very pleased but disappointed with the cowl and wheel pants flow. Disappointed because there isn't much left to catch Klaus.

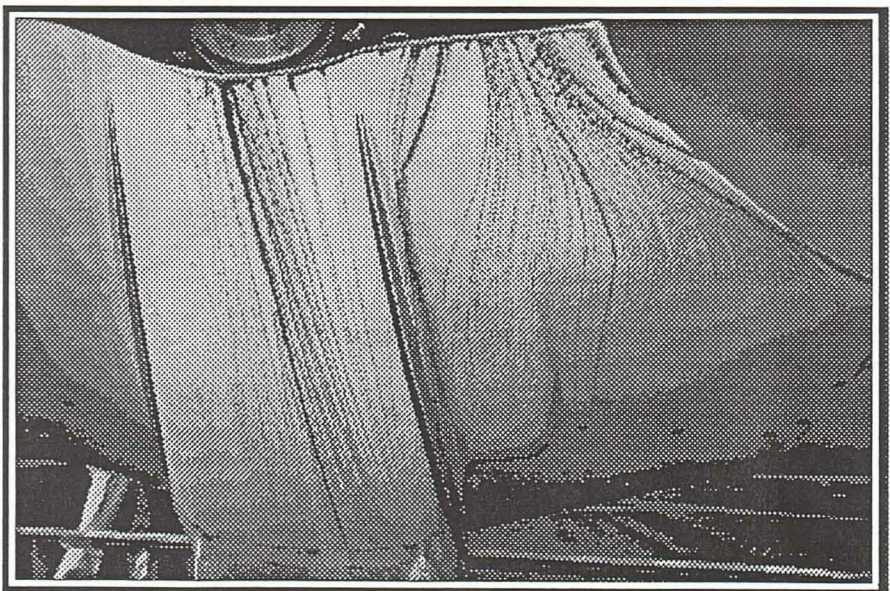
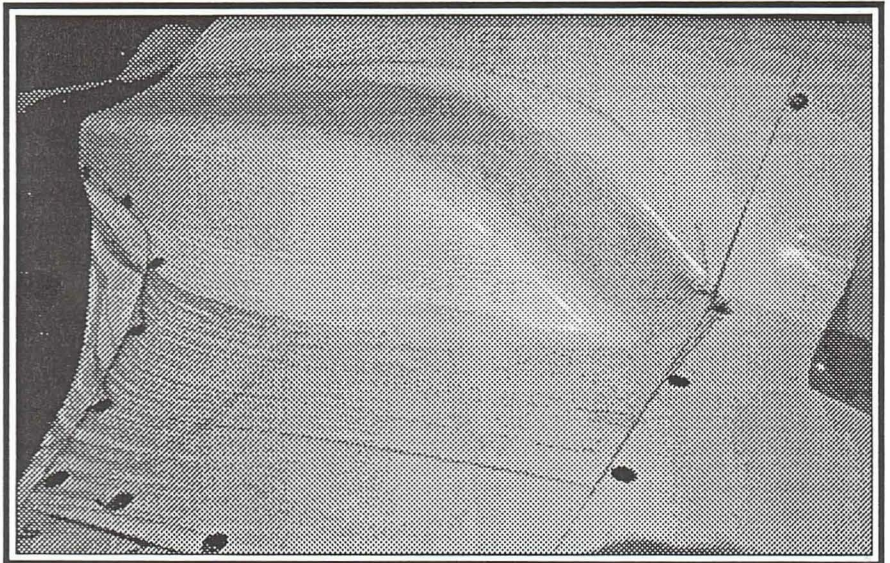
Cowl flow is pretty much straight back except along the trailing edge where it is expected. There is a small area of "flow avoidance" on the bottom cowl where the cowl transitions from flat bottom to the belly about 10" from the trailing edge. There are no signs of classic separation which is seen on the stock cowl in this area. The top cowl is free of anything except the typical "V" at the very top trailing edge.

I was most pleased with the flow around the gear leg fairing. There does not seem to be any significant disturbance downstream. I was most concerned with this because of the non-perpendicular intersection between the gear leg and fuselage sides.

I don't understand the winglet flow. The upswept flow at the lower portion of the rudder is a well known problem (not sure what to do about it) but the local areas of separation about 60-70% chord directly above this is a mystery. I think there is something to be had with a different lower cambered airfoil for winglets.



oil flow shows no disturbance from gear leg



**Thank you - thank you!!**

We are indebted to these oil flow testers for messing their aircraft so we can learn.

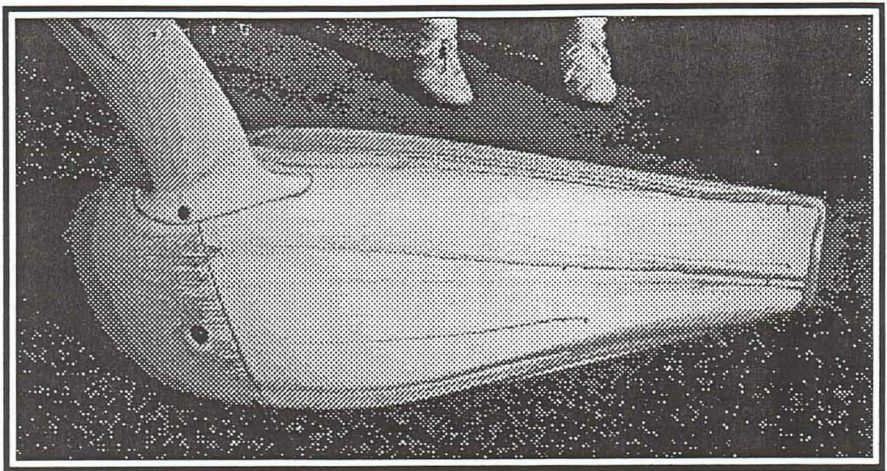
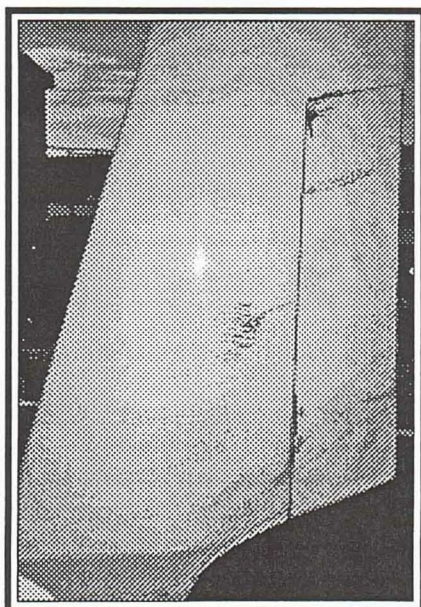


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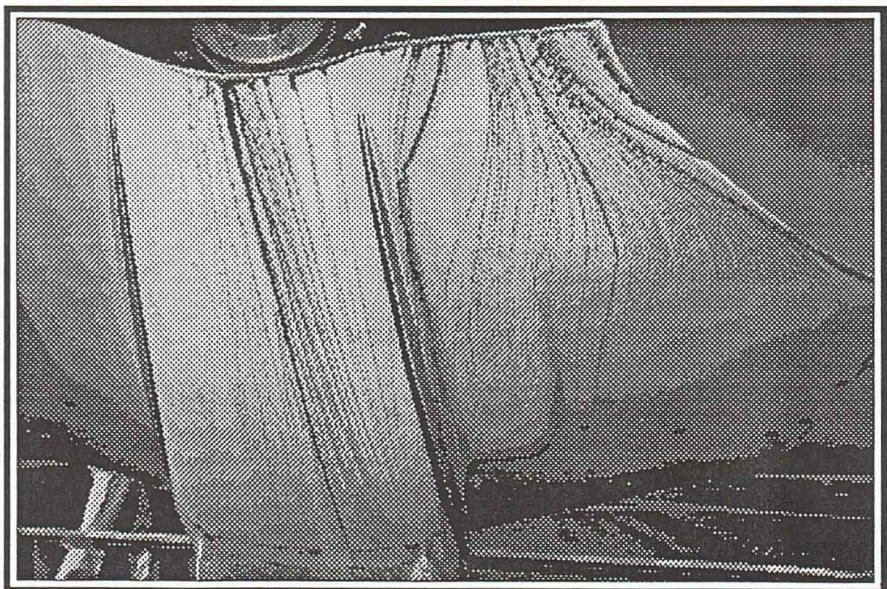
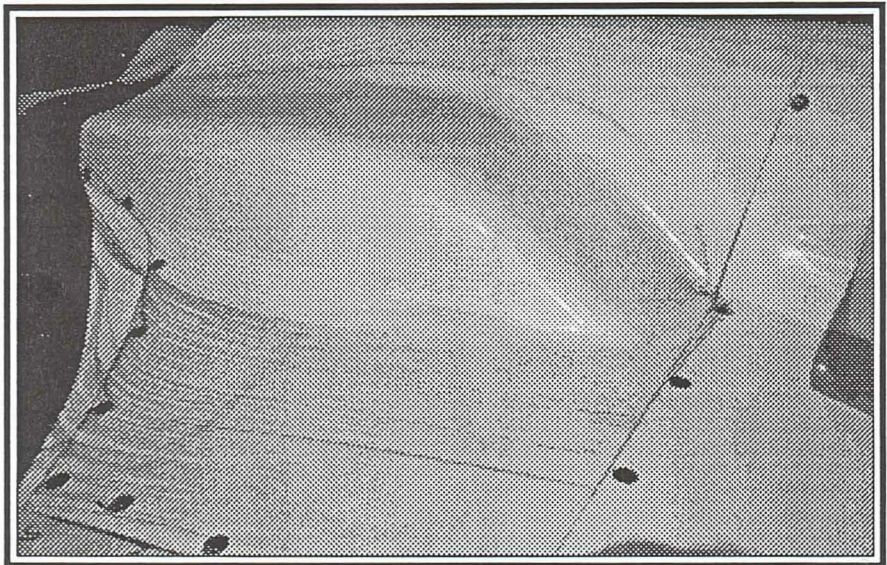
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## Carl Denk - Cozy Classic

This beautiful European version of Nat's Cozy3 has an IO-320-B1A installed. A fuel injected engine gave Carl the opportunity to build a cowl free of the bottom curve normally needed to clear the carburetor.

Induction air is taken in through a center bottom tunnel inlet/air filter. Cooling air comes in through huge arm pit scoops. The engine installation has always been plagued with very high cylinder head temperatures and similarly high oil temperatures. Enlarging the arm pit inlets to the present size has done little to help.

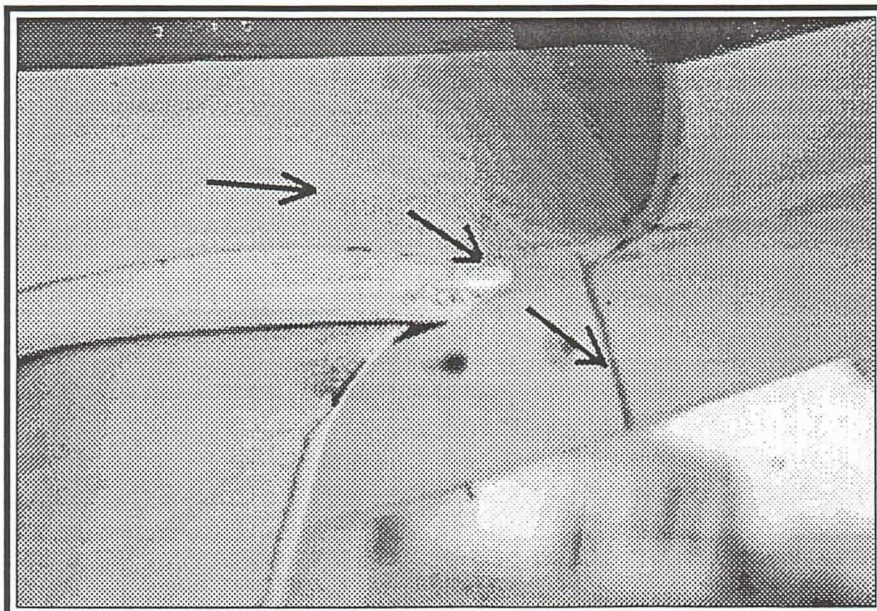
Oil flow and earlier tuft testing showed why. Note the air flow curves down the side of the fuselage between the gear leg and the arm pit inlet. It avoids entering the cowl. I guess you can't blame it. The temperature is pretty high in there. This is a test. What do you think should be done to get the air into the cowl?

The landing gear strut airfoil has been elongated to align with the flow but separation still occurs before 50% chord. It appears Klaus's previously printed airfoil (CSA Jan 95 p 32) is what is needed to keep the air from separating. On my Long-EZ that airfoil would be nearly 11" long.

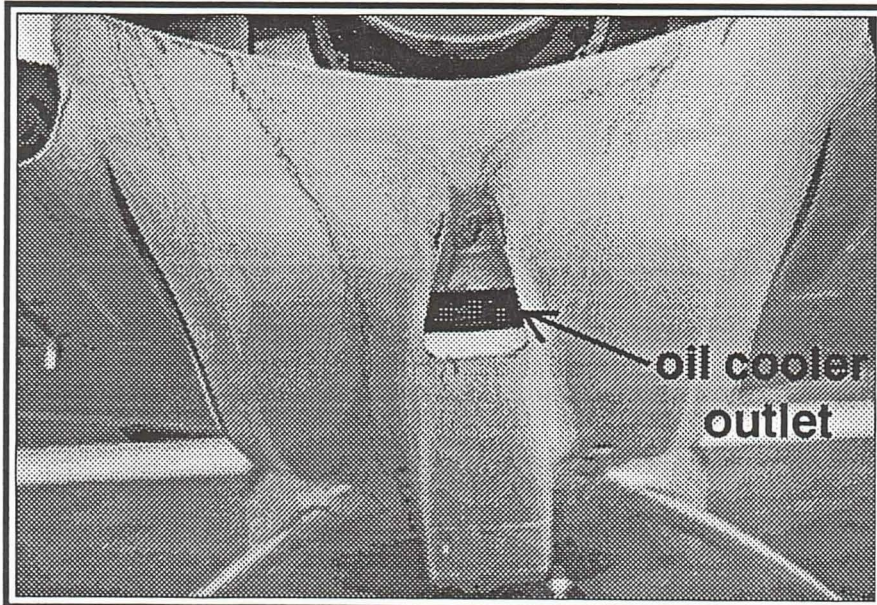
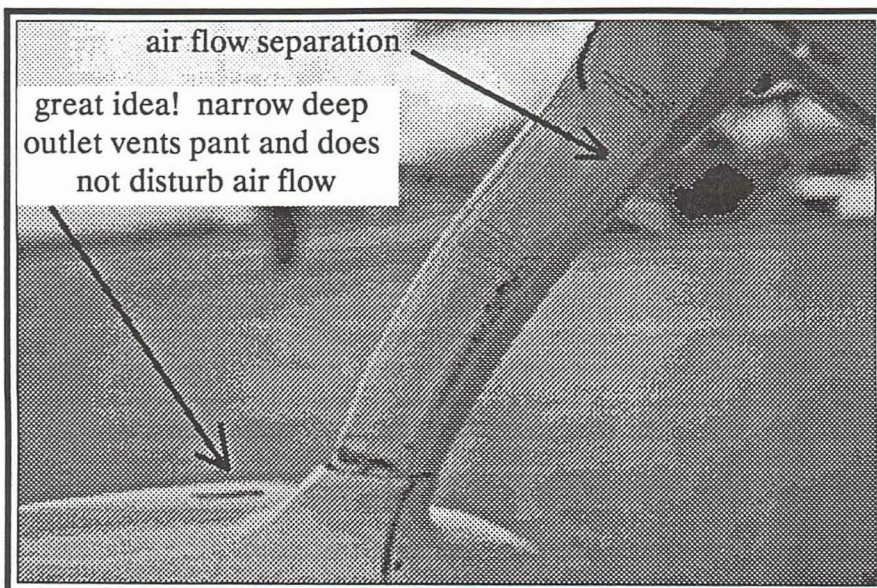
The very clean cowl has an oil cooler exit at the aft end of the center tunnel. Note the wide oil streaks coming from the oil cooler opening. What can you say about the speed of the air here? What can you say about the speed of the air through the oil cooler? How effective would you guess the oil cooler is? How would you improve it?



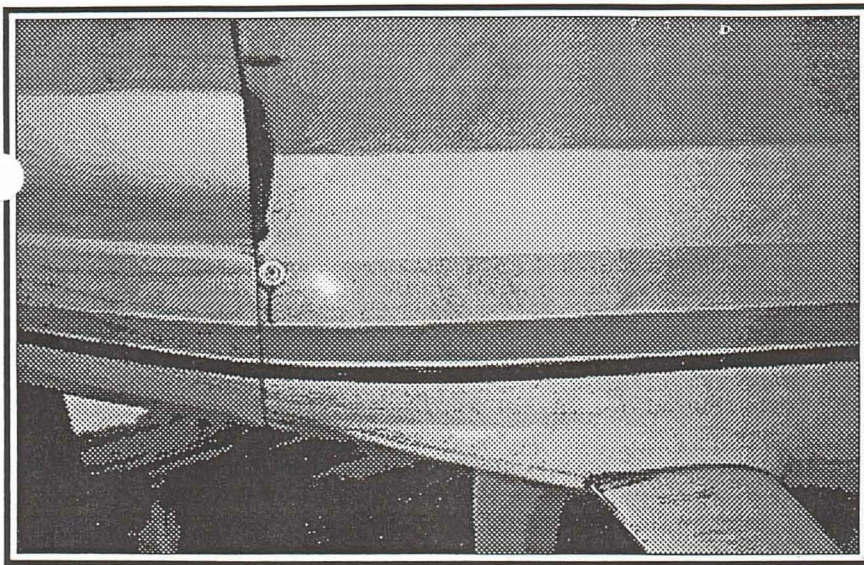
**Fly Safely !**



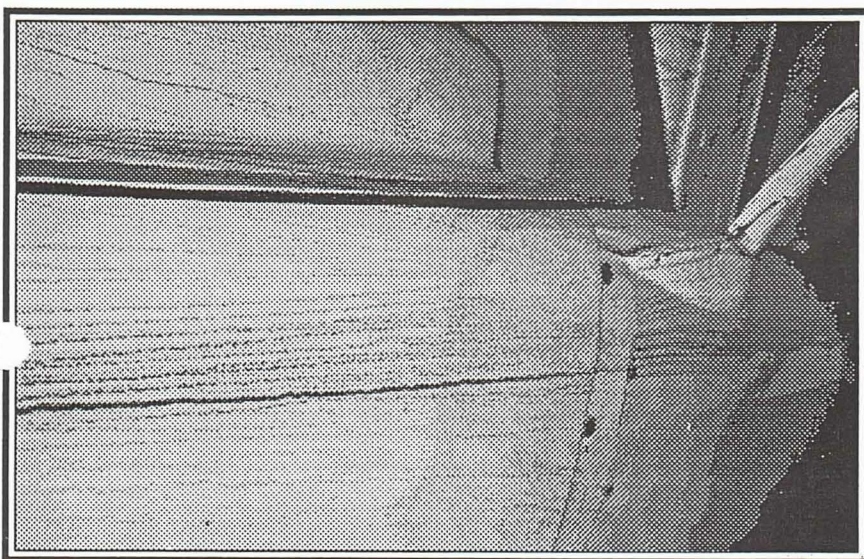
cool air by passes cowl inlet



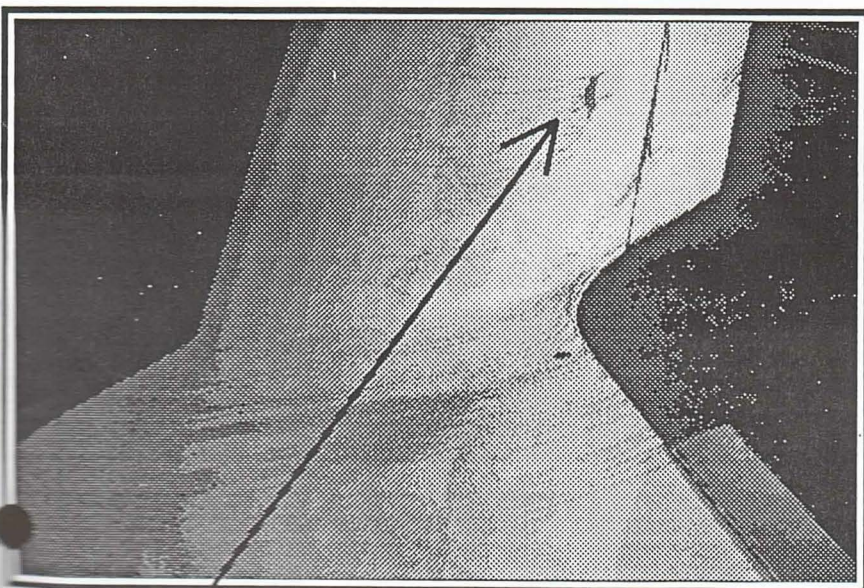




air goes straight back into inlet and is not affected by gear leg



Very straight flow around gear leg fairing



Air flow separation begins

## Cato Prop Concern

David Orr (CA) - David Timms called in a worry. He ordered a Cato prop and discovered, on its arrival, that Cato cuts a hole clean through the center which severs the wood so completely that it frightens him about the integrity of the prop. Those with Catos should give David a call if you have an opinion; nobody likes to discover prop problems in the air or abandon a good prop "just because". 805-583-2810.

## For Sale

New O-235 dynafocal engine mount for Long-EZ. \$150-200. Brand new Becker com radio in box. \$1600 OBO.

## Wanted

O-320 dynafocal engine mount for Long-EZ, assorted accessories (starter, alternator, 4 in 4 exhaust, electronic ignition, oil cooler, etc) Need assorted instruments too. Contact:

Moises Romero  
4394 W Pine Blvd #207  
St. Louis, MO 63108  
314-537-2312 - W  
314-531-3910 - H

## Cozy For Sale

Cozy III, SN 8, 50TT airframe and engine (O-290), Terra com/nav with GS, King transponder & Mode C, electric start. \$30,000. Contact:

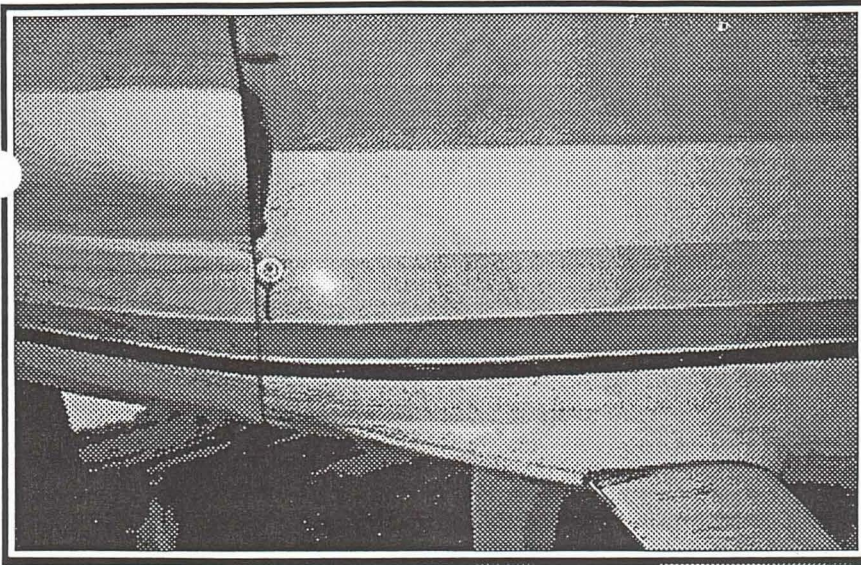
Jim Krug  
172 Shadybrook Dr  
Centerville, OH 45459  
(513) 434-3276

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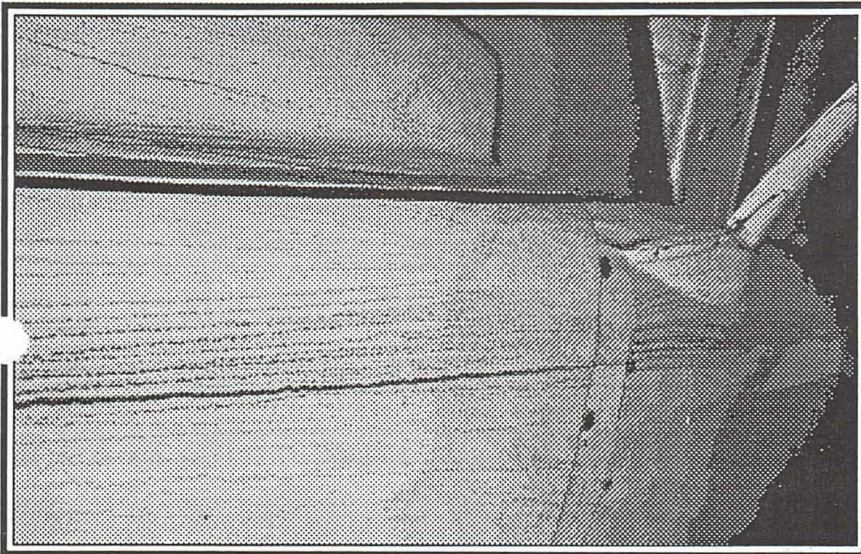
Complete set of standard O-200 piston rings, for cast iron cylinders. 3" prop extension, flanged, black, w/drive lugs for O-200 Continental. Key starter, complete w/drive gears. I would like to but a 2 place intercom for my KX99.

Gene Zabler  
48 Robin Hill Dr.  
Racine, WI 53406  
414-886-5315

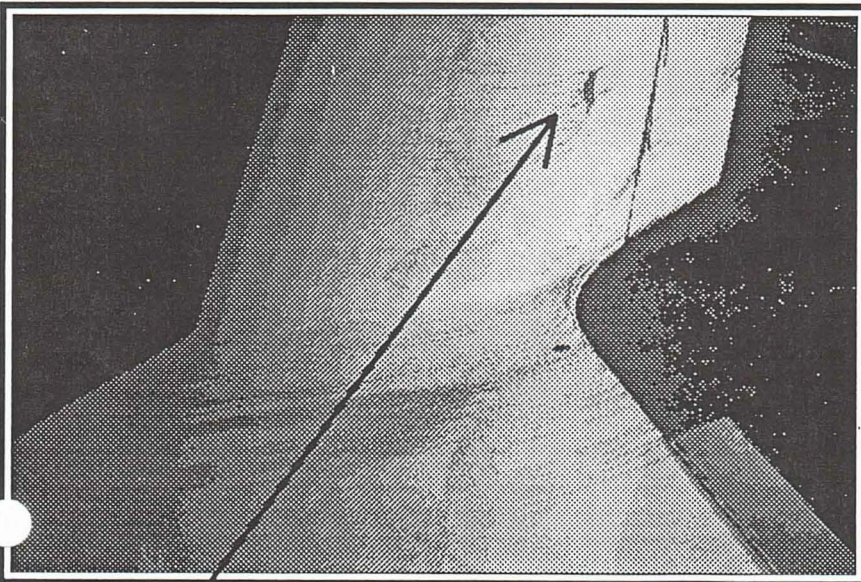




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