

Sept 81

Vol 1 #6

YOUR SUBSCRIPTION EXPIRES WITH THIS ISSUE

NEWSLETTER

Fellow Osprey Builders,

I am sure that many of you heard about my unfortunate accident en route to Oshkosh this year in the Osprey 2 prototype.

I have flown my Osprey from Sacramento to Oshkosh six times in the last seven years. Last year I was joined by three other Ospreys and we were delighted to see the double takes at airports when four odd looking amphibians taxied in for fuel.

This year Ernie Hummel met me in Sacramento in his pride and joy and the two Ospreys lifted off at 0:630 for a beautiful morning flight over the high Sierras en route to Ogden, Utah, our first overnight. A dawn takeoff from Ogden produced another smooth flight at 9,500 ft. to Rawlins, Wyoming for fuel. Three Christen Eagles were sitting out some weather that had moved in further East. Coffee time, flying talk, and a new sequence report dictated a change in flight plan to fly E.S.E. We lifted off at Rawlins with a density altitude close to 10,000 due to the heat and got around most of the low ceilings. At 9,500 ft. we each checked our true air speeds and were getting 129 to 132 M.P.H. at 7.5 G.P.H. Deteriorating weather put us down on top of the freeway I-80 and our ground speed fell to 80 M.P.H. Ernie gave me a call suggesting a climb through the broken clouds for better winds. At 8,500 ft. I felt a severe vibration in the cabin. I was able to shut the engine down after about 15 seconds. I came out over what I thought was a hay field. It turned out to be Nebraska corn. Ernie made a 180 but was unable to spot me so he flew on to Lincoln, our last intended overnight before Oshkosh.

Damage to my Osprey was mostly in the wings. The corn was about 12 ft. high and it absorbed a lot of energy as the Osprey harvested about 150 yards of corn in a 26 ft. wide swath.

As many of you know Ernie went on to Oshkosh for a great Osprey turnout. Our family of builders is growing! Doug Sisemore drove from Sacramento to Shelton, Nebraska with a boat trailer to pick me up. I must be blessed to have friends like this? The Osprey will be rebuilt and is coming along very well.

We have since tested a new two blade propeller designed by Ole Fahlin. I feel that a two blade is much the safer design since all of the laminations go through the bolt pattern. Using Ernie's Osprey the first tests went very well. The three blade has been used to get enough disk area. The new Fahlin design has a

very wide chord and is the same diameter so it can be used to replace the three blade. The two blade produced a shorter takeoff, higher rate of climb and higher speed at full power. There was no metal on the tips and edges so water performance could not be evaluated. We hope to water test at full gross loads this week so I will save the final results with all of the numbers for the next newsletter. It is my understanding that Ole Fahlin has written to all of you who have the early three blade. He told me he would replace it with the new two blade when all of the tests are evaluated, at no charge. He also said he would give priority to those who have their Ospreys flying.

I would like to touch on something very important in propeller maintenance. When installing the wood prop Fahlin recommends you torque the bolts ~~25~~ to 30 inch lbs. Any time the weather gets very dry where you will lose moisture at the hub you should re-torque the bolts. It's not enough to do it every 100 hours. The humidity is the key to a properly torqued bolt pattern. He also says the outside plate disk should be 4130 steel no less than 3/16" thick. This gives a more even bolt pressure in between the bolts.

SEE
NEXT
LETTER

Regards to all,

George

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HOW I SET MY ENGINE

by: J. Dale Wilson

"Lycoming 10-320-B1A, dynafocal mount.

Off and on for three weeks, I tried to mount my engine by propping, bracing, clamping and wiring - didn't work. At 3 AM one morning, while staring at two flies mating on the ceiling of our bedroom, EUREKA!!! I've got it. Just like the flies I was working upside down. I just clamped a pair of 2x2's onto the spar. (Get's us 5°, right?) Now cut 2-1x2's. Next nail a two foot square piece of plywood to the rear of the wedge, brace to station 14. Now we have a platform, rigid and at 3° to the vertical. Now put four long screws into the plywood so the dynafocal ring will hang at the proper height and the prop will clear the fuselage by 2". For the 3° offset, (.625 per foot) merely shim one side of the ring more than the other when arriving at the proper backset for your balanced engine. Fasten these shims so when you take the ring off to cut fit and weld, you don't lose your setting. This whole alignment took less than two hours after mounting the plywood base plate.

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