

Rudder: That beautiful rakish angle on the fin and rudder seems to me to present potential problems. It would appear that the swing of the rudder will require a rather large gap (horizontal) where the rudder meets the fin extension, perhaps as much as 1", because the top edges of the rudder spar are displaced upwards when the rudder moves. In like manner, the bottom of the rudder would appear to displace down below the hull line as the rudder is moved, which would seem then to act like a great water scoop in a tail-low landing, perhaps leading to structural damage. Has anyone had these problems?

But my biggest disappointment, and one which I don't know where I went wrong, or what I'm going to do about it, is in the area where the leading edge of the fin meets the leading edge of the stabilizer. Every picture of every Osprey I've seen appears to show that point to be edge-to-edge. I haven't foamed the leading edge of my fin yet, but when I do, and if I continue the contour of the fin ribs and skin when forming the foam, the edge of the fin will intersect the stabilizer at a point about 1" back from its edge on the bottom side, and the fin extension will start about 2" back from the edge on the top side. In other words, the stabilizer will stick out in front of the fin, and look lousy. Has anyone else had this problem? It seems like the upper fin ribs and the upper part of the front fin spar are too narrow. I guess I will fatten the upper front of the fin with foam, and recontour it to get the leading edges to meet correctly, unless someone tells me that would not be a good thing to do.

Aileron pulley on the floor at station #37: The pulley bracket bolts onto the gusset at this station. The bolt holes should be drilled before that gusset is glued in, because space limitations make it almost impossible to drill afterwards.

In spite of all the above, it has been generally pretty good so far, and most everything works out fine.

I'm glad that Jeff Fraisure wrote about the seat rails rising when retracting the gear, and his cure for it. I'm nearly into that area now, and it's nice to be warned. I think that I will also use those upright braces that he calls for to mount a light gauge aluminum tunnel between them and station #86. This will protect the controls and cables from the baggage etc. that will be stowed in the space.

I made my fuselage uprights from square stock, and so I had to bevel them after the sides were jigged for floor and floor frame installation in order to glue in the gussets. I found this very easy to do by wiring a file to a long piece of square stock. Then, by holding the other end of the stock against the matching material to get a perfect bevel. Be sure the filed area is finished with a good glueing surface, free from loose wood fibres and tiny splinters which might remain from the filing operation. Scrape the area with a piece of glass to remove the particles if needed.

Does everyone know that trick? Wood will oxidize over time, and that is why it becomes darker on the outside. It will also get dusty and dirty during the same time. It is safer to get that surface clean and bright before glueing something to it. Break a pane of glass into small pieces and use a flat or slightly curved edge of one of those pieces as a scraper on the wood. With one or two strokes you'll have it clean as a whistle and ready for glue. This method is preferred over sanding, since sanding will leave those little loose fibres too.

This has gone on much longer than I expected!! Oh, well, maybe you can use something from it as a space filler. Thanks again for producing a darn good Newsletter!

Alan Dunn
146 Hunting Lane, Box 101
Sherborn, MA 01770

(THANKS FOR THE ENCOURAGING WORDS, THANKS TOO FOR THE INFORMATION!)

OSPREY 2 LANDING GEAR WHEEL BEARING LUBRICATION

by: Ernie Hummel, 150 Alamo, Vacaville, CA 95688

The Timken Tapered Roller Bearings in the nosewheel of my aircraft were recently found to be frozen tight and the bearing races severely corroded. The discovery was made while we were installing new spacers turned out by Eagle-eyed Doug Sisemore, builder of a superior Osprey 2 in Woodland, California.

It is apparent that the graphite-based grease which I used did not contain a rust inhibiting agent, and the molded synthetic grease retainer flanges on the bearing cases served to hold in moisture as well as grease.

The frozen bearings were forcing the aluminum spacers to rotate on the tubular steel axle, thus negating the purpose of the roller bearings.

The new bearings have been packed with STA-LUBE BOAT TRAILER WHEEL BEARING GREASE manufactured by Sta-Lube Inc., Compton, Ca. 90221 and available at the local marine supply store. Needless to say, we expect better results from this product, however, if your Osprey is being used in the water often, more frequent checks of the bearings on all three wheels should be made than for land use alone. The new grease is a dandy blue color and about the greasiest grease you will ever find.

WE GET LETTERS

"Dear Fellow Ospreyites!

Spring has finally arrived here in Vermont and we are flying again. The new two bladed prop seems to be performing great.

After two & a half hours of flying, off and on, I checked the torque of the prop bolts. To my surprise the bolt torque was down to 10 lbs. I used drilled bolts with castled nuts and cotter pins. This proves we are going to have to check this torque frequently as the prop is seating itself to the hub. Plus the effect of dry & humid weather conditions.

One other thing I discovered was the holes in the propeller and the propeller extension were not deep enough to accept the drive bushing. The bushings bottomed out in the holes before the prop was seated the extension. The same of the extension to the crankshaft flange. If you develop vibrations this is the first thing I would recommend looking for. Please check the tracking of the prop also. An out of track prop could be the first indication of loose bolts of bushing holes not deep enough.

I have ten more hours left to fly off restrictions and plan on being at Oshkosh '82 - By Gosh with N45GB of course."

George Burgess
RD 1 Vail Road
Bennington, Vermont 05201