Flange bushing replacement procedure

The tail wheel is turning 6,300 RPM if your airplane reaches 30 MPH during take off or landing. Axle and bushing wear is inevitable. Depending on conditions, you will have to have the bushings replaced every 50 to 100 flights. We will do it for you or you can follow these instructions and do it yourself.

When the wear gets to the point that the edge of the tire can touch the side of the yoke a new set of bushings should be installed. This is a rather simple procedure that can be accomplished with normal modeling tools.

1. Using a dremmel tool or a small saw or file cut a groove in the inside diameter of one of the bushings, you don't need to do both sides. It is best to not cut all the way to the aluminum wheel. What you are doing is relieving the tension of the press fit between the bushing and the wheel.



2. After you have a groove cut most of the way through take any sharp thin knife blade and slide it under the flange. At this point you should be able to pop the bushing out with a twisting motion of the knife blade. If it won't pop out cut the groove a little deeper.



3. With the bushing removed from one side find a drill, wood dowel, or anything else that has a flat end and is close to the inside diameter of the hub. Using your rod as a punch fit it into the wheel center hole where you have just removed the bushing and hold it against the inside flange of the remaining bushing. Tapping the end of the 3/8 rod will drive the second bushing out of the wheel.



4. If you happened to cut into the wheel in operation #1 take a fine round file or some sandpaper on a dowel and remove any rough edge on the inside of the axle bore. Next press the new bushings into the wheel. This can be done several ways, a common vise works quite well. Take care to align the bushing directly over the center hole in the wheel and press it in by closing the vise. You can also tap it in with a hammer but you will have to place some kind of flat plate between the bushing flange and the hammer. Don't hammer directly on the bushing flange.

We will gladly do this for you if you want to send us your wheel.

White Rose Engineering (239) 390-3911