

TO THE BUILDER

This kit has been produced to enhance the reliability and safety inherent in Long-EZ/Vari-Eze aircraft. To give credit where it is due, mention is made here that the basic idea was put forth by Paul Mason of West Palm Beach, Fl. Since 1985 the design has been revised several times to its present form. This includes Mike Melville's recent suggestion of locking the thrust washer to casting NG - 15A, assuring a smooth constant friction between NG - 16 and the thrust washer.

The kit is as complete as we can make it, but there are still several things the builder must do. These are as follows:

1. With the new pivot shaft (1) installed into NG-16, a 3/16" dia. hole must be drilled through the shaft by locating from casting NG-16. ( The builder might wish to have this done by a competent machinist.)
2. With the entire unit put together temporarily ( see the enclosed assembly drawing), drill out the threads for the former damper assembly using a 3/16" drill. Now, make certain that the thrust washer (3) rests flat against castings NG-15A and NG-16. Next, take the 3/16" drill bit out of the chuck, and manually push it down this hole until it contacts the thrust washer. Gently tap the drill shank with a hammer marking the hole center on the washer. Remove washer to a drill press and drill successive pilot diameters until you have a 3/8" dia hole through the washer. With your 100 chamfering tool, chamfer the hole each side of washer.
3. Once more reassemble shimmy damper, but this time lightly coat bottom of thrust washer (3) with "Anti-Seize" Lubricant by Permatex. This can be purchased from your local auto supply house, and is used on spark plug threads, threaded holes on your wheel brakes, etc. where high temperatures and forces are present. This lubricant will prevent galling of the washer or casting and will not run out due to excessive heat.
4. Check the "stack-up" of the assembly to be sure washers (3) and (4) are laying flat against their respective mating surfaces. Now tighten shear nut (6) until the pull at the wheel trailing edge complies with R.A.F. specs. Using a handrill and 1/8" drill bit spot the pivot shaft for cotter pin (5).
5. Disassemble and put pivot shaft (1) with NG-16 attached, into a V-block under a drill press, and drill 1/8" dia. hole straight through shaft.

6. Assemble, lubricate and visually inspect as above. Tighten nut and install cotter pin after achieving proper pull at wheel trailing edge. Plug 3/16" hole with floc.

7. You will continue to check wheel pivoting force with your foot, but, from operating experience, readjustment will seldom be required.

NOTE:

Flanges on bushings pressed into NG-15A have been 1" dia. in the past. Check the diameters of these bushing heads on your airplane. If one or both are larger, then in addition to the above (Items 1 - 7) you will also need to open the I.D. of washers (3) and/or (4) to suit. This may be done with the dremel. Concentricity and fit are not critical here, but the washers must fit over the bushing heads in order to lay flat.