

May 20, 1996

TO ALL EXEC, EXEC 90 and EXEC 162F OWNERS

ADVISORY BULLETIN A-26

History: RotorWay has received feedback from customers regarding Bulletins M-11 (Exec 90 and 162F) and A-23 (Exec), which discussed installation of the secondary drive unit and operating temperatures of the upper secondary bearings. To this date, problems that have occurred with the secondary shaft were the result of high bearing temperatures and have occurred at the upper end of the shaft, primarily in the bearing area. As described in the previous bulletins, earlier secondary units with three bearings in the upper housing operate at higher temperatures than the current units with two bearings. This is confirmed by the use of temperature strips.

Another item of concern has been the installation of the key between the sprocket and the shaft. If the key is improperly installed, stress may be induced into the keyway area, which could develop into a crack.

Action: RotorWay International recommends that all secondary units with three bearings be upgraded to the current two bearing design. The two bearing design runs cooler, and uses double row ball bearings which are better suited for use where alignments and loads vary. Replacement of the upper secondary bearings will require sending the unit back to the factory, because the secondary is not a field serviceable component. Please contact the Parts Department to schedule this replacement.

In addition, an inspection of the secondary shaft in the area of the keyway should be done every 100 hours. (If the aircraft already has more than 100 hours at this time, the inspection should be performed at the earliest convenience.)

The inspection consists of the following:

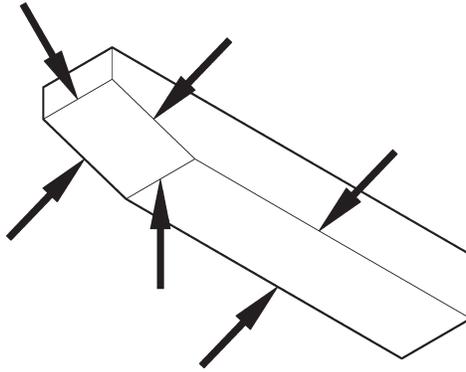
1. Remove the sprocket from the secondary shaft. This involves removal of the chain.
2. Thoroughly clean the secondary shaft with solvent and acetone to remove oil.
3. Use a penetrant inspection kit to detect any cracks. There are two kits available from Aircraft Spruce and Specialty:

Spotcheck Test Kit, part number SK-45
Met-L-Chek, part number 09-38304

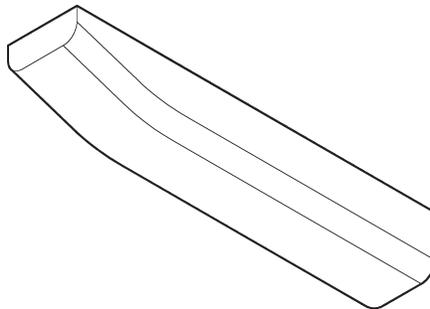
Either kit will last for many years. Your local FBO may also be able to supply the kit or inspect the shaft.

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Before re-installing the key, radius the edges of the key where it contacts the shaft, as indicated by the arrows in the illustration below. The edges should have approximately a 1/16" radius. This can be done using a file, grinder, or sander.



The example below shows the key after being radiused.



Note: To verify which type of bearings are supplied on your secondary unit, check the serial number on the end of the secondary shaft.

Secondary units with three bearings:

All serial numbers up to 5280 (shipped before March, 1994)
and numbers 5290, 5291, 5292, 5302, 5303.

Secondary units with two bearings:

All serial numbers above 5304 (shipped after September, 1994)
and numbers 5281 to 5289, 5293 to 5301.