



**REVOLUTION**  
HELICOPTER CORP., INC.



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September 21, 1999

**RHCI Airworthiness Directive (AD# 092199)**

**Affected Aircraft:** All Mini-500 helicopters

**AD Type:** Mandatory (Recommended to comply before further operation)

**Subject:** Gearbox Lubrication

During our continuous testing and improvement program here at Revolution Helicopter we have adopted a different type of lubrication for the main and tail rotor gearboxes. This oil is both a different viscosity and a different formulation than that previously utilized. This change will reduce transmission temperatures, reduce gear and bearing wear, and is more resistant to oxidation and moisture contamination build up than the previous lubrication.

This change also requires a different quantity be installed in the main transmission. The new required quantity is 1.2 U.S. quarts. The tail rotor gearbox quantity remains the same at 3 fluid oz. Although this oil is superior to that which it replaces, on the theory that oil is cheaper than gears, we are also reducing the recommended oil change interval from 500 hours to 250 hours or yearly, whichever occurs first.

We recommend flushing the gearboxes prior to using this oil in the following manner:

Start and warm up the aircraft in the prescribed fashion. Run at 100 % rpm at flat pitch for 5 minutes. Drain the gearboxes and replace their lubricants with **Revlube Gearbox Flush #E0028**, 5 fluid ounces in the T/R gearbox, 1.5 quarts in the Main Transmission. Run again at 100% flat pitch for 5 minutes. Drain the Gearbox Flush and fill the gearboxes with the prescribed quantity of **new Revlube Gearbox Lubricant #E0015**.

**Warning!** This procedure has been tested with **Revlube Gearbox Flush #E0028** only. Use of any other type of flush constitutes an unknown condition and may damage the lubricating qualities of the **new Revlube Gearbox Lubricant #E0015**.

Revlube Gearbox Lubricant **#E0015** is \$18.99 per quart, two quarts required, and Revlube Gearbox Flush **#E0028** is \$9.58 per quart, two quarts required, **plus shipping**. To order, call Customer Service at (816) 637-2800.

Once complied with this AD, please date and sign, then return or fax a copy to:

Revolution Helicopter Corp.  
1905 West Jesse James Road  
Excelsior Springs, MO 64024  
Fax: (816) 637-7936

Signature: \_\_\_\_\_ Serial # \_\_\_\_\_ Date \_\_\_\_\_