

REPUBLIC AVIATION CORPORATION  
FARMINGDALE, LONG ISLAND, NEW YORK  
SERVICE DEPARTMENT

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DISTRIBUTORS BULLETIN No.42

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REVISED GREASE RECOMMENDATIONS FOR HARTZELL HYDRO-SELECTIVE  
PROPELLERS

The following information has been received from the Hartzell Propeller Company.

"1. Experience has brought to light the fact that water sometimes gets into the propeller blade clamp assembly, particularly on Seabee installations. This water will mix with certain types of greases and cause them to become hard and chalky in consistency. This may result in poor operation of the propeller, as the blades may become tight on the pilot tubes.

2. A number of greases have been tested for water resistance, tackiness, lubricating properties when mixed with water, and viscosity under various temperatures. The following greases are recommended in the order of listing:

- (a) Stroma HT-1 (Z-B01 Grease)  
Union Oil Co. of California
- (b) Lubriplate 630 AA  
Fiske Brothers, Toledo, Ohio
- (c) Stroma LT-1 (Z-815 Grease)  
Union Oil of California
- (d) Lubriplate 707  
Fiske Brothers, Toledo, Ohio
- (e) Mobilgrease Aero  
Lo - Hi PD-535-K  
Socony Vacuum Oil Co.

3. Other grease previously recommended in the service manual are deficient as to water and should not be used.

4. If the airplane is left out of doors in the rain, the propeller should be horizontal to avoid water getting into the blade clamps."

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Mr. Biermann of Hartzell Propeller Company also suggests remedies for the following symptoms.

- (1) "O" rings flatten out with time and heat.  
Remedy - Use Plastic and Rubber Products  
Chicago, Ill., Specification H-222-70 rings  
NOT AN Specification "O" rings.
- (2) Valve gasket flattens out.  
  
Remedy - Use hard tag paper gasket. Also use thin  
gasket compound. Shellac or "Formagasket".
- (3) "O" rings cut or defective.  
Remedy - Replace
- (4) "O" rings too loose in valve.  
  
Remedy - Replace valve. Adjustment will be made  
by factory.
- (5) Grease leak from blade bearings  
  
Remedy - Use Permatex No. 1 in blade groove all  
the way around and Formagasket on clamp gaskets.

Early propellers with clamps not peened should be  
peened to hold the gasket in.

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