

## **CHR International Inc.**

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## NOTICE TO SAFARI OWNERS WHO HAVE PERFORMED OR PLAN TO PERFORM MAINTENANCE ON THE MAIN ROTOR HEAD BEARINGS:

The rules of some aviation authorities allow the builder of an experimental aircraft to qualify as the mechanic for that particular aircraft. Performing routine maintenance is an appropriate activity for a SAFARI owner, but we STRONGLY DISCOURAGE attempting to replace main rotor head, tail rotor head, or main transmission bearings. ASSEMBLY OF THESE CRITICAL PARTS IS A COMPLICATED AND PRECISE OPERATION, AND FAILURE TO PERFORM THIS PROPERLY CAN RESULT IN CATASTROPHIC FAILURE.

In an effort to reduce costs and complications, the SAFARI was built using standard size bearings; however, all bearings of the same size are not alike.

The only bearings currently approved for use in the main rotor head by CHR International Inc., developer and manufacturer of the SAFARI helicopter kit, are SKF 7206 BECBY bearings.

A rotor head returned to the factory for inspection revealed that a bearing of inferior quality had been substituted for the standard bearing. Thankfully, no damage or injury occurred as a result of this unauthorized substitution but the potential for disaster was present.

The approved bearing is rated to handle a load of 39 kN (8800 lbs) of force while the bearing that was installed is rated for a load of only 37.5 kN (8400 lbs) of force. (Note: An over-speed condition of only 1 RPM increases centrifugal load by 8 kN (2000 lbs)). These bearings would have a calculated lifetime of roughly 300 hours before failure and having smaller shoulders and bearing ball sizes, could have resulted in catastrophic failure of the main rotor system in flight. This could have caused reduced controllability and function of the main rotor system.

Under no circumstances should inferior bearings be used. If you are determined to perform maintenance on the rotor head and need assistance locating the proper bearings, please contact the factory.