

TURBOCRAFT DIVISION, INDIANA GEAR WORKS, INC.  
Indianapolis, Indiana

SUBJECT: Replacement of Main Thrust Bearings

APPLICABLE: All Jet Units From Serial #270

In some cases it is necessary to replace the main thrust bearings in the jet unit of the Turbocraft because of lack of lubrication or because of the presence of water, rust and foreign matter due to gasket or gland seal failure. This bulletin deals with those jet units that have the capsule housing type of bearing assembly, and the recommended procedure for their replacement is as follows:

TO REMOVE:

1. Disconnect U-joint on engine drive shaft from jet unit coupling by removing four bolts. Push drive shaft forward and to one side.
2. Using suitable punch, remove lock-spring pin from jet unit shaft.
3. Secure jet unit shaft against rotating. (Suggest inserting punch or metal rod through one of the four holes in coupling. Run an end wrench or equivalent down from punch to intake housing.) Remove 7/8-14 castle nut and washer.
4. Pull out coupling and shaft key.
5. Remove bearing cap and pre-load shims by removing four hex head screws.
6. Break capsule housing bearing assembly free by using 5/16-24 jack screws in two places provided. Pull out capsule housing bearing assembly.

TO ASSEMBLE:

1. (Before inserting new capsule housing bearing assembly, liberally lubricate the two outside O-ring seals and the four inside gland seals with vaseline or equivalent.) Insert capsule housing bearing assembly with two oiler holes UP, to mate with oiler cups.
2. Install pre-load shims and bearing cap. (Shims MUST be used as received with their own capsule housing bearing assembly as they determine the correct bearing pre-load of .004 to .006.)
3. Insert shaft key.
4. Replace coupling. (Lubricate outside of coupling with vaseline or equivalent to the extent of its insertion through the bearing cap.)
5. Replace washer and castle nut. Tighten castle nut by containing the coupling rotation as suggested above.
6. Connect the coupling to engine drive shaft U-joint.
7. Fill the two oiler cups.