SUBJECT: Propeller Pitch Conversion Instructions for Experimental Engines

PURPOSE: To establish instructions to convert from the delivered fixed pitch propeller configuration engine to constant speed propeller.

COMPLIANCE: When engine is placed in service following initial assembly or overhaul

MODELS AFFECTED: Continental Aerospace Technologies Titan™ OX320ADBY1, IOX320ADBY1, OX360ADBY1, experimental aircraft engines

I. GENERAL INFORMATION

The Continental Aerospace Technologies™ (Continental®) Titan engine models, as listed in the “MODELS AFFECTED” (above), are delivered and set up to operate as a fixed pitch propeller application. This Service Bulletin includes instructions to convert the engine operation from a fixed pitch to constant speed propeller operation, before the propeller is installed.

II. INSTRUCTIONS

To convert the engine configuration from fixed pitch propeller application to a constant speed propeller operation:

1. Pierce the front expansion plug face at the front of the crankshaft, remove and discard (Figure 1).

   NOTE: The front expansion plug is light gauge steel (0.083-inch), having a concave or cupped contour. Care should be exercised at removal to prevent contamination of the engine with debris.

2. Thoroughly remove any residual gasket sealant used to secure plug and clean crankshaft mating surface where plug was removed.

   Pierce and remove front crankshaft oil expansion plug

Figure 1. Crankshaft Expansion Plug
3. Remove propeller governor adapter cover (Figure 2).
   a. Remove the nuts, lock washers, and washers from the four mounting studs; discard the lock washers.
   b. Remove the propeller governor adapter cover and gasket; discard the gasket.

![Figure 2. Propeller Governor Adapter and Cover](image)
(parts shown are for illustrative purposes only)

4. Install propeller governor (IPC-EXP001, “Experimental Engine Hardware Reference Manual”) on the propeller governor adapter according to the applicable aircraft manufacturer’s instructions.
   a. Lubricate the stud threads with clean, 50 weight aviation engine oil. Install washers, new lock washers, and nuts, finger tight.
   b. Torque the mounting hardware according to the standard torque in E-SB002, “Table of Limits for Titan™ Experimental Engines.”

5. Install a serviceable propeller.

III. PREFLIGHT INSPECTION

1. Prior to starting the engine, perform a “Preflight Inspection” of the engine, propeller, nacelle, and aircraft according to the aircraft manufacturers Operator’s Manual or Aircraft Flight Manual/Pilot’s Operating Handbook, (AFM/POH).