TEXTRON Lycoming
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MANDATORY
SERVICE BULLETIN

DATE: June 29,1998

Service Bulletin No. 530A (Supersedes Service Instruction No. 530) Engineering Aspects are FAA Approved

SUBJECT: Application of Protective Coating on Crankshaft

MODELS AFFECTED: The following Textron Lycoming four cylinder engines which utilize fixed pitch propellers except new engines shipped after February 15,1997.

All 235 series engines;

All 290 series engines;

All 320 series engines; and

All 180 horsepower, 360 series engines except the O-360-A4A, -A4AD, -A4D, -A4G, -A4J, -A4K, -A4M, -A4N, -A4P, -A5AD, -C4F, -C4P, IO-360-L2A and AEIO-360-B4A engine models.

TIME OF COMPLIANCE: At overhaul or earlier at owner's discretion.

A protective coating, Urethabond 104*, is available to apply to the crankshaft ID in the flange area to prevent corrosion pitting. This coating has been incorporated on new crankshafts shipped in engines and as spares since February 15,1997. These crankshafts are identified by "PID" stamped on the OD of the crankshaft flange.

APPLICATION OF URETHABOND 104*.

Once crankshaft has been inspected per latest revision of Service Bulletin No. 505 and has been found to be serviceable, having no corrosion pits, the protective coating Urethabond 104* must be applied according to the following steps.

CAUTION

DO NOT APPLY THE COATING OVER CORROSION PITS. THE PROTECTIVE COATING WILL NOT INHIBIT GROWTH OF PRE-EXISTING PITS OR RESTORE THE INTEGRITY OF THE CRANKSHAFT.

1. The crankshaft must be removed from the engine.
2. Remove all deposits and soil from the I.D. to be coated using a stiff wire brush.
3. Clean the I.D. to be coated using a cleaning rod or shop cloth dampened with Varsol or equivalent.
4. Wipe dry with a clean shop cloth.
5. Thoroughly clean, vapor degrease, and dry the crankshaft immediately prior to coating. (Trichlorethylene or an environmentally safe alternative.)

NOTE

Handle and dispose of all materials according to all Federal, State and Local regulations,

6. Apply coating using a 4" long nap paint roller replacement sleeve #54011** or equivalent attached to a length of 1/4" rod. Apply only to the 3.50" distance shown in Figure 1. The coating thickness must be 2.0-3.5 mils and coverage must be 100%. **Do not thin for application.**

7. Metal stamp "PID" on the crankshaft flange O.D. so that it can be readily identified as a coated shaft.

8. Brush a light coating of Ferrocoat 364★ on the outside of the crankshaft to prevent corrosion, being sure to cover all the bearing surfaces, thrust faces and the gear surface at the rear of the shaft. **DO NOT ALLOW** oil to come in contact with the newly coated I.D.

9. Air dry to a minimum of four hours at 75 °F. before handling or exposing to moisture, solvents or oils.

10. Reassemble the engine per the appropriate service publications.

11. Make appropriate log book entries as required.

* Urethabond 104 is available from Textron Lycoming authorized distributors in one-quart containers and may be ordered using P/N 05P22558. Shelf life for unopened containers is two years. Urethabond 104 is manufactured by Coatings for Industry, Inc., 319 Township Line Road, Souderton, PA 18964.

** Roller Sleeve #54011 is manufactured by Worktools International, Inc., Largo, FL 34643.

★ Ferrocoat 364 is manufactured by Quaker Chemical Corporation, Elm & Lee St., Conshohocken, PA 19248.

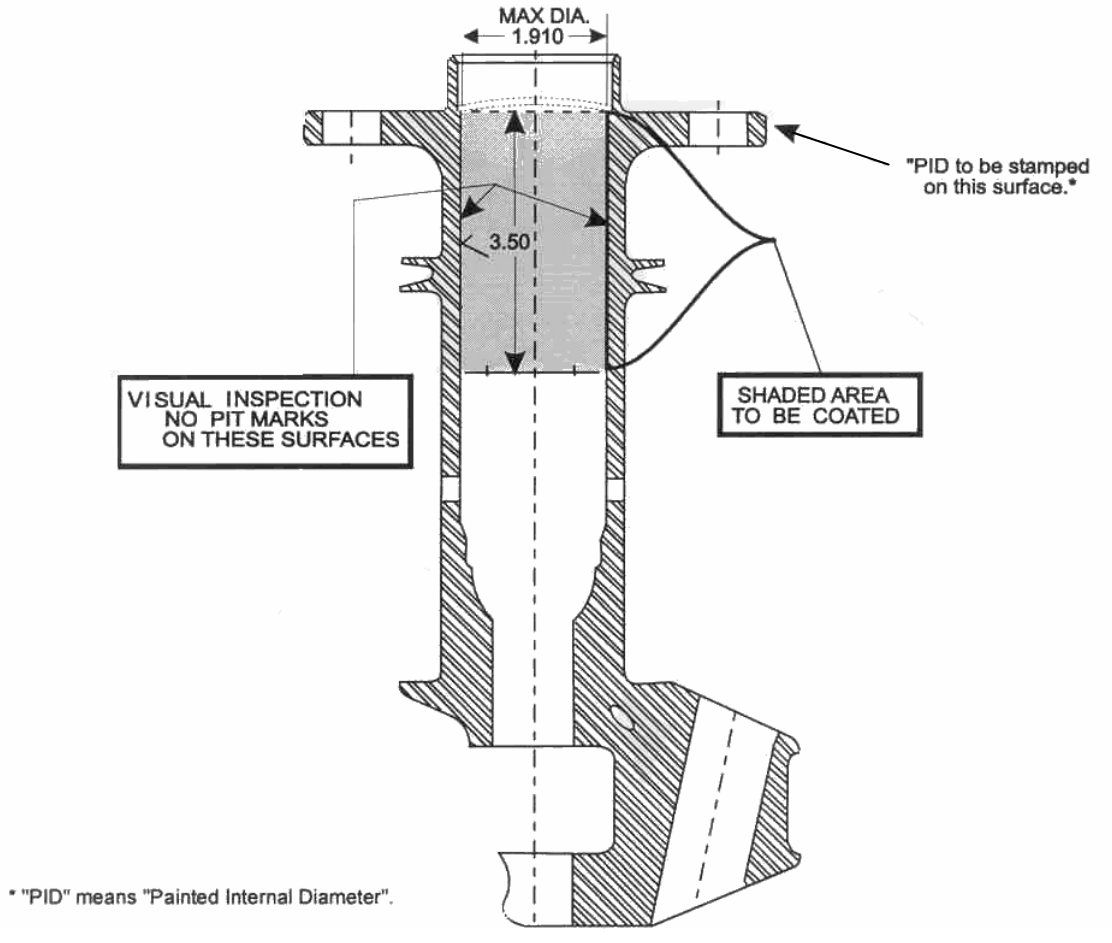

Figure 1. Area to be Coated

NOTE: Revision "A" adds availability for Urethabond 104.