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SERVICE INSTRUCTION

DATE: February 8, 2008

Service Instruction No. 1481B
(Supersedes Service Instruction No. 1481A)
Engineering Aspects are
FAA Approved

SUBJECT: Factory Engine Preservation

MODELS AFFECTED: All Lycoming reciprocating aircraft engines stored in Lycoming Engine packaging and not in active or stored aircraft.

TIME OF COMPLIANCE: Not applicable.

New, rebuilt, and overhauled engines purchased from Lycoming are preserved for either 60 or 180 days. The date of preservation is the date printed on the sticker on the outside corner of the engine box with the gross weight; or it may be written on the top of the box following a "Preservation Date" stamp. This preservation is intended to protect the engine from corrosion for the specified time interval. It is **not** intended to protect the engine indefinitely. **Corrosion is warrantable only during the specified preservation period.** If at the end of the specified preservation period the owner elects to keep an engine in storage, the following steps are recommended, but do not extend corrosion warranty.

A. For 60 day preservation:

1. After the first 60 days, and every 60 days thereafter, perform the following steps:
 - a. Remove the top and bottom spark plugs from the cylinder to be inspected.
 - b. Rotate the crankshaft until the piston is at bottom dead center.
 - c. Using a 4x borescope with a 70° angle of view or similar equivalent internal examining device, check each cylinder for evidence of corrosion.
 - i. Note: **Do not rotate the engine** while conducting the borescope evaluation.
 - ii. Note: The diameter of the borescope must be smaller than the diameter of the spark plug hole.
 - d. Repeat steps 1.a thru 1.c until each cylinder is inspected. Reinstall the spark plugs.
 - e. Remove the rocker box covers and visually inspect for any evidence of corrosion. When the inspection is finished, reinstall the rocker box covers.



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- f. Remove the accessories and visually inspect the drives and shafts to ensure that no moisture or corrosion is evident. When the inspection is finished, reinstall the accessories.
 - g. At the first sign of corrosion contact a Lycoming distributor or Lycoming Technical Service at 877-839-7878 (877-TEX-SUPT).
2. After a period of one (1) year from the preservation date, the engine must either be placed in service or the above steps A.1.a. thru A.1.f. must be performed as directed. As previously stated, corrosion is warrantable only during the specified preservation period. Performing the above steps does not extend the corrosion warranty.

B. For 180 day preservation:

- 1. After the first 180 days, and every 60 days thereafter, perform the following steps. Note that to perform these steps it will be necessary to remove some of the engine packaging.
 - a. Remove the top foam pillow. Instructions for the removal are located on a sticker on the outside of the engine box.
 - i. Note: Do not remove the engine from the box.
 - ii. Note: Do not disturb the clear plastic bag in which the engine is sealed.
 - b. Inspect the moisture indicator. The indicator is resting on top of the cylinders on one side of the engine and is visible through the bag. If moisture is present, the indicator will have turned from blue to pink.
 - i. If the moisture indicator has turned from blue to pink then the engine must be inspected using steps A.1. thru A.2. listed above.
 - c. Inspect the clear plastic engine bag to be sure that there are no visible signs of damage. Damage to the container could cause the preservation to be lost.
 - i. If the bag is found to be torn or damaged then the engine must be inspected using steps A.1. thru A.2. listed above.
- 2. At the end of 180 days, if the moisture indicator shows no signs of moisture and the plastic bag is not either torn or damaged, the preservation may be extended 60 days. As long as no moisture is indicated or the bag is not damaged, the preservation can be extended in 60 day intervals for up to one year from the preservation date on the engine box.
- 3. After a period of one (1) year from the preservation date, the engine must either be placed in service or the above steps B.1. thru B.2. must be performed as directed. As previously stated, corrosion is warrantable only during the specified preservation period. Performing the above steps does not extend the corrosion warranty.

NOTE: Revision “B” revises step A. 2.

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