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SERVICE INSTRUCTION

DATE: November 24, 2025

Service Instruction No. 1481C
(Supersedes Service Instruction No. 1481B)
Engineering design data in this service document is FAA approved.

SUBJECT: Factory Engine Preservation

MODELS AFFECTED: All Lycoming reciprocating aircraft engines shipped from the Lycoming Engines factory after effective date of this Service Instruction.

TIME OF COMPLIANCE: Not Applicable

REASON FOR REVISION: Revised the entire service instruction.

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Document provides Instructions for Continued Airworthiness (ICA).

This Service Instruction revision announces an update to the packaging of engines leaving the Lycoming factory. New, rebuilt, and overhauled engines purchased and shipped from Lycoming are preserved for either 60 days or 24 months from the preservation date. The date of preservation is the date printed on a sticker on the outside corner of the engine box with the gross weight (Figure 1); 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 a specified time interval. It is **not** intended to protect the engine indefinitely. **Corrosion is warrantable only during the specified preservation period**. One of four options (see Table 1) can be selected when ordering the engine from an Authorized Lycoming Distributor. The Long Term 24-month preservation can be identified by the use of a blue plastic anti-static/anti-moisture bag in which the engine is sealed.

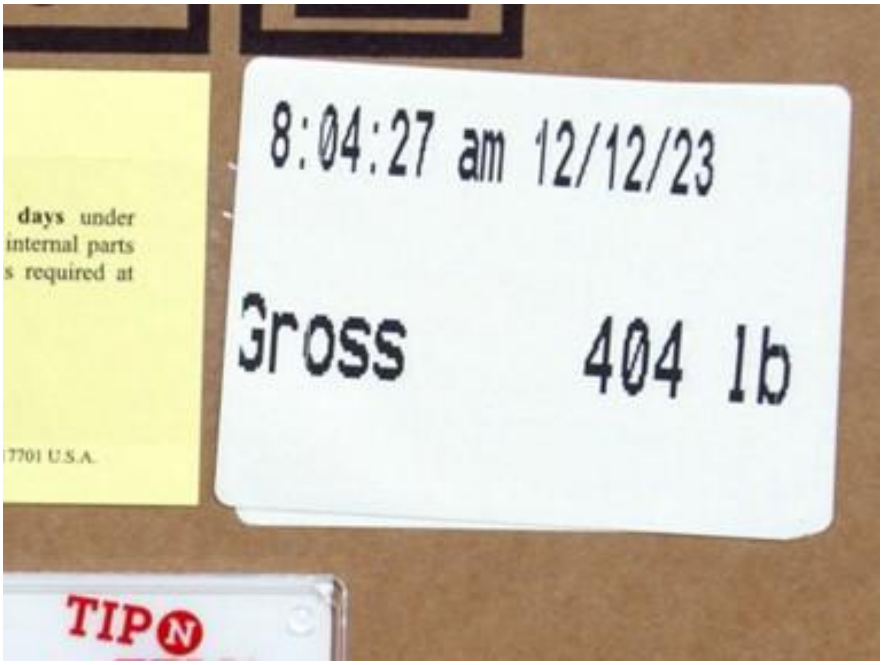

Figure 1
Preservation Date Stamp

Table 1

OPTIONS WHEN ORDERING ENGINE	PACKAGING DESCRIPTION	PRESERAVATION PERIOD
DOMESTIC CARTON	Crate only.	60 DAYS
LONG TERM STORAGE PRESERVATION BAG	Engine is bagged in a blue preservation bag for additional moisture protection or for extended storage.	24 MONTHS
MOD FOAM PACKING	Crate only with additional shipping protection of a spray foam pillow top.	60 DAYS
MOD FOAM PACKING *and* LONG TERM STORAGE PRESERVATION BAG	Preservation bag and with additional shipping protection of a spray foam pillow top.	24 MONTHS

NOTICE: If a foam pillow top is present (Figure 2), follow the instructions for removal located on a sticker on the outside of the engine box.

1. **For 60-day preservation:**

   A. This type of preservation is intended for OEM aircraft manufacturers or aftermarket customers where the engine will be removed from the shipping crate and installed with little or no delay after receiving the engine.

      (1) Moisture protection beyond 60 days is not provided inside the shipping crate. Engine must be installed and placed into service as soon as possible.

      (2) See the most current revision of Lycoming Service Instruction No. 1472 for removal of preservative oil.

Figure 2
Top Foam Pillow

2. **For 24-month preservation:**

   A. After the first 12 months, and every 180 days thereafter, complete the following steps.

      (1) Open the engine box

         (a) Do not remove the engine from the box.

         (b) Do not disturb the blue plastic bag in which the engine is sealed (Figure 3).

Figure 3
Blue Plastic Bag

(2) Inspect the blue plastic bag to be sure that there are no visible signs of damage. Damage to the bag will cause the preservation against moisture to be lost.

(a) If the bag is torn or damaged and the humidity indicator shows there is any moisture present (Figures 5 or 6), complete the steps in the Engine Inspection section of this service instruction.

(b) If the bag is torn and the humidity indicator shows no moisture present (Figure 4), the bag can be taped or repaired and the preservation can be extended, in 180-day intervals, for up to 24 months from the preservation date on the engine box.

(c) So long as no moisture is indicated (Figure 4) and the bag is not damaged, the preservation can be extended, in 180-day intervals, for up to 24 months from the preservation date on the engine box.

Figure 4
Humidity Indicator Showing No Moisture Present in the Bag

(d) If the bag is damaged or the humidity indicator shows some moisture (Figure 5) or excessive moisture (Figure 6) in the bag, complete the Engine Inspection in this service instruction.

Figure 5
Humidity Indicator Showing Some Moisture Present in the Bag

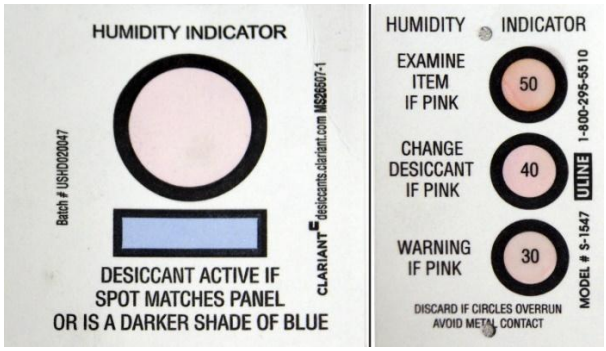

Figure 6
Humidity Indicator Showing Excessive Moisture Present in the Bag

3. **Beyond the 24-month preservation:**

A. After a period of 24 months from the preservation date, the engine must either be placed in service as soon as possible or the above Steps 2.A.(1) through 2.A.(2).(a) must be completed every 60 days thereafter. As previously stated, corrosion is warrantable only during the specified 24-month preservation period. Completing the Engine Inspection does not extend the corrosion protection.

NOTICE: After the blue plastic bag is opened, the engine cannot be returned to the same level of moisture protection. If the plastic bag is opened, the engine must be inspected every 60 days or placed into service as soon as possible.

Engine Inspection

If the humidity indicator shows moisture is present inside the bag (Figure 5 or 6), complete the following steps. Note that to complete these steps it will be necessary to remove the sides and top of the engine box and open the blue plastic bag in which the engine is sealed.

1. See the most current revision of Lycoming Service Instruction No 1472 for removal of preservation oil.
2. Remove the top and bottom spark plugs from the cylinder to be inspected.
3. Rotate the crankshaft until the piston is at bottom dead center.
4. Using a 4x borescope with a 70° angle and a diameter smaller than the diameter of the spark plug hole or similar equivalent internal examining device, check each cylinder for evidence of corrosion.

NOTICE: Do not rotate the engine while conducting the borescope evaluation.

5. Repeat Steps 1 thru 3 until each cylinder is inspected. Reinstall the spark plugs.
6. Remove the rocker box covers and visually inspect for any evidence of corrosion. When the inspection is finished, reinstall the rocker box covers, and replace the Gaskets
7. 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.
8. At the first sign of corrosion contact a Lycoming distributor or contact Lycoming Technical Support at 570-327-7222 or 877-839-7878.

Record the results of each engine inspection and all required maintenance completed during the storage period in the engine logbook.

Any required disassembly, reassembly, or accessory removal and reinstallation during the engine's storage period must be completed in accordance with the applicable engine maintenance or overhaul manual. After the engine is installed in the aircraft, reinspect any work completed on the engine while in storage.

If you have any questions, contact Lycoming Technical Support by phone at 570-327-7222 or 877-839-7878 or email to Technicalsupport@lycoming.com.