

# MAULE AEROSPACE TECHNOLOGY, INC.

LAKE MAULE -- RT. 5, BOX 318 -- MOULTRIE, GA. 31768 -- PHONE (912) 985-2045 -- FAX: (912) 890-2402

## SERVICE LETTER #56

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February 19, 1993

**SUBJECT:** Carburetor Heat Air Valve.

**AIRPLANES AFFECTED:** Maules with Lycoming O-360-C1F or O-540-J1A5D engines.  
Airplanes manufactured before June 1991.

**COMPLIANCE:** Mandatory

**STATUS:** This Service Letter should be considered an early warning of a potential safety of flight problem. Replacement parts may be ordered from Maule Air, Inc. for field installation to preclude failure.

**AUTHORITY:** Maule Air, Inc.

**BACKGROUND:** Maule has received a report that part of the rubber seal on the carburetor heat valve separated from the valve and lodged in the throat of the carburetor. Power was greatly reduced and the engine ran extremely rich due to partial blockage of the air through the carburetor. Power was partially restored by leaning the mixture and a forced landing was avoided. The airplane had accumulated about 1000 hours.

**ACTION TO BE TAKEN AND MATERIAL REQUIRED:** Operators of airplanes affected are requested to remove the air filter and visually inspect the condition of the rubber seal on the carburetor air heat valve. If the seal is deteriorated or worn on the upper or lower surface and/or it is made from a red rubber material, it should be replaced. Current seals from the factory are made from a black nitrile rubber which is considerably tougher and more durable than the red silicone rubber.

The Part Number 5286X-22 Seal may be replaced as follows:

- 1) Remove the Valve Plate Assembly from the Air Box by removing the shaft.
- 2) Drill out the eight (8) Rivets which hold the Valve Plate Assembly together.
- 3) Remove the existing Rubber Seal and install a new Part No. 5286X-22 Seal (obtainable from Maule Air, Inc.)
- 4) Reassemble the Valve Plate Assembly using AD3-4 Rivets.
- 5) Trim the Seal to fit the Air Box. The sides of the Seal should clear the side walls of the Air Box by 1/32 inch maximum. The upper and lower ends of the Seal should extend out from the metal plates by approximately 3/4 inch and lie against the upper and lower walls of the Air Box with valve in its extreme positions.
- 6) Permanently reinstall the valve in the Air Box and secure with the two (2) original AN526-8 screws and AN365-832 self-locking nuts. Replace the nuts if the self-locking feature appears worn.
- 7) The valve should work easily through the complete range of travel with no binding.

**FREQUENCY:** One time, no more than 25 hours after receipt of this Service Letter. Condition of valve should be inspected at each Annual or 100 Hour inspection thereafter.

Return of the enclosed Compliance Record is requested.

**IT'S PERFORMANCE THAT COUNTS!**

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## COMPLIANCE RECORD SHEET

Airplane Serial Number \_\_\_\_\_

Airplane Registration Number \_\_\_\_\_

The following action was taken with respect to this Service Letter:

- I have visually inspected the condition of the rubber seal on the Carburetor Air Heat Valve and found it to be in satisfactory condition and it is **NOT** made from a RED rubber material.
- I have visually inspected the condition of the rubber seal on the Carburetor Air Heat Valve and found it to be in **UNSATISFACTORY** condition and have replaced existing rubber seal with a new p/n 5286X-22 Seal made from a black nitrile rubber.
- I have visually inspected the rubber seal on the Carburetor Air Heat Valve and found it to be made from a RED rubber material and have replaced existing rubber seal with a new p/n 5286X-22 Seal made from a BLACK nitrile rubber.
- I no longer own this aircraft. It was sold to:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Certified By (Signature) \_\_\_\_\_

(Print Name) \_\_\_\_\_

Title (Owner, A & E, IA, etc.) \_\_\_\_\_

Date \_\_\_\_\_

In our effort to keep our mailing list current, please fill in the following:

Owner's Name \_\_\_\_\_

Owner's Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please return this Compliance Record to Maule Aerospace Technology, Inc.,  
Engineering Records, 2099 GA Hwy. 133 S, Moultrie, GA 31788

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