



# SERVICE LETTER

No. 699

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

February 12, 1974

Subject:

Fuel Vent Line Check Valve Installation -- reference attached Lycoming Service Bulletin No. 362A, dated December 14, 1973.

Models Affected:

PA-31P Navajo

Serial Numbers Affected:

Refer to attached Lycoming Service Bulletin No. 362A, Models Affected section.

Compliance Time:

Refer to attached Lycoming Service Bulletin No. 362A, Time of Compliance.

Purpose:

To provide distribution of attached Lycoming Service Bulletin No. 362A, dated December 14, 1973, and to urge compliance with the provisions of the modification specified thereon.

Balance of Piper Service Letter format not applicable; refer to attached Lycoming Service Bulletin No. 362A for further detailed information.

# AVCO LYCOMING DIVISION

WILLIAMSPORT, PENNSYLVANIA 17701

## Service Bulletin

L

DATE: December 14, 1973

Service Bulletin No. 362A  
(Supersedes Service Bulletin No. 362)  
Engineering Aspects are  
FAA (DEER) Approved

SUBJECT: Fuel Vent Line Check Valve Installation

MODELS AFFECTED: TIO-541-E1A4 and -E1C4 engines with serial numbers 835-59, 846-59, 847-59, 856-59, 862-59, 863-59 and all engines with serial numbers lower than 833-59. All remanufactured engines shipped prior to January 9, 1973.  
TIGO-541-E series engines with serial numbers 485-62 and lower. All remanufactured engines shipped prior to October 19, 1973.

TIME OF COMPLIANCE: During next 100 hour inspection of the aircraft or earlier at owner's discretion.

Operating experience with aircraft in which these engines are installed has shown that the odor of fuel can sometimes be detected in the ventilating system during malfunction of some fuel induction component such as a loose injector nozzle or other condition that could permit fuel vapor to escape to the area of the sonic nozzle.

The possibility of this occurrence has been eliminated by installation of a check valve which prevents any flow in the direction of the sonic nozzle.

Installation of the check valve can be accomplished by removing the vent line and fitting which are located between the fuel induction housing and the controller adapter housing, and replacing them with the check valve and a new fuel line as described in the following procedure.

To accomplish this modification, a "Fuel Vent Line Check Valve Kit", No. LW-13324, consisting of (2) LW-12745 check valve; (2) LW-13037 tube assembly;

and (2) no. 29512-6 seal is available, at no charge from Avco Lycoming, Williamsport, Pa.; include the serial numbers of the engines with your request. The quantity of (2) parts per kit is sufficient for both engines of the aircraft.

(1) Remove no. 77706 tube that is connected between the induction housing and the controller adapter. See figure 2. Also remove the AN-815-6 union and MS29512-6 seal from the adapter housing.

2. Install the LW-12745 check valve with a new MS29512-6 seal in the tapped hole in the adapter assembly from which the union was removed. Be sure the check valve is installed with the arrow (indicating direction of flow) pointing away from adapter assembly. See figure 1. Tighten the valve with 75 to 125 in. lbs. torque.

3. Connect the LW-13037 tube assembly between the check valve and the fitting in the induction housing.

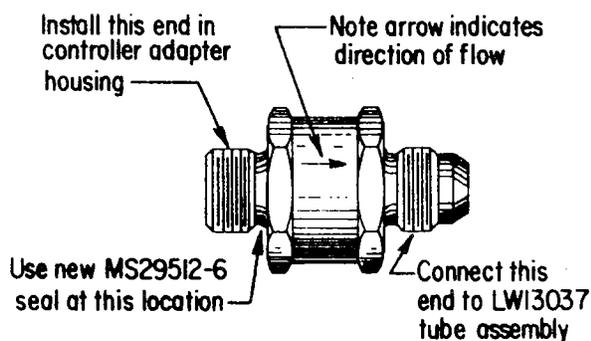


Figure 1. Fuel Drain Line Check Valve No. LW-12745

17441, 18053 - These numbers for Avco Lycoming reference only.

NOTE: Revision "A" adds TIGO-541 model; changes figure 2.

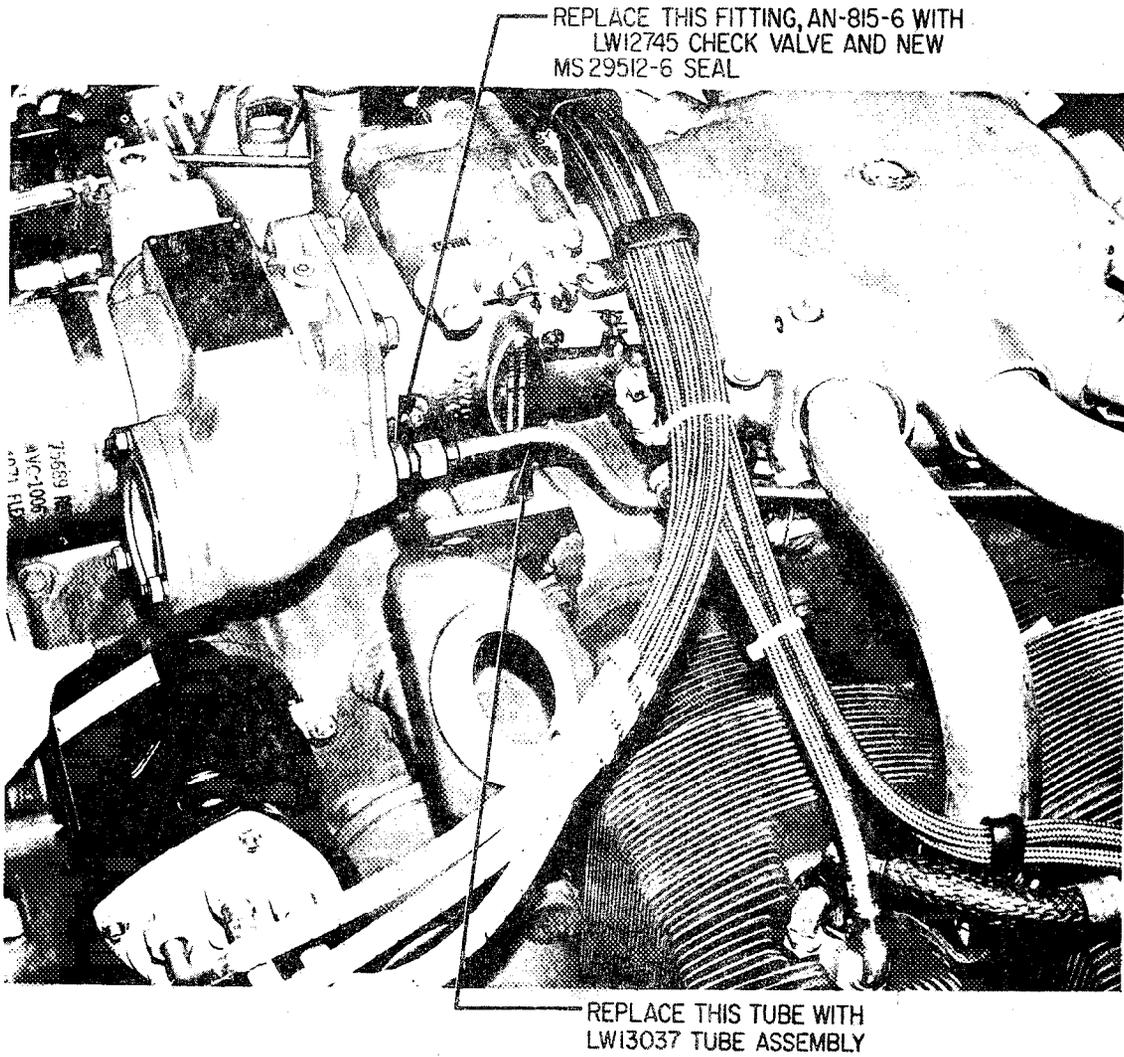


Figure 2. Top View of Engine Showing Location of Fuel Drain Tube