



SERVICE BULLETIN

No. 589B

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

Modification FAA DOA EA-1 Approved

September 25, 1979 M

(Supersedes Service Bulletin No. 589A dated August 17, 1978).

Subject:

Vacuum System Modification

Reason for Revision:

To announce the availability of Kit 763 834 Vacuum System Modification and to list additional affected aircraft.

Models Affected:

PA-31T Cheyenne II
PA-31T Cheyenne I

Serial Numbers Affected:

31T-7400002 through 31T-7920029 Inclusive
31T-7804001 through 31T-7904009 Inclusive

Compliance Time:

Within the next one hundred (100) hours of operation or at the next scheduled inspection event, whichever occurs first.

Purpose:

Piper Service Bulletin No. 589, dated December 19, 1977 (and prior telex version, same subject, dated December 8, 1977) addressed the possibility of the Turn and Bank vacuum system becoming pressurized with subsequent rupture of the turn and bank instrument cover glass. An inspection (and replacement with new like part, if necessary) of the existing system check valve was specified.

Service Bulletin No. 589A, dated August 17, 1978, announced availability of an additional relief valve as a "back-up" for the existing system check valve. This modification was designed to protect the vacuum system from becoming pressurized due to primary check valve failure.

This Service Release announces the availability of a Vacuum System Modification Kit. The modification is designed to protect against ejector ice-up and the associated loss of vacuum for turn and bank instrument and pressurization control. Severe ejector ice-up may result in ejector reversal (vacuum becoming pressure), causing loss of altitude control on aircraft equipped with a Garrett pressurization system, and if the safety dump control were activated during this condition, the safety valve would be rendered inoperative.

(over)

Instructions:

1. Determine whether Relief Valve Assy. (Piper Part No. 49755-02) has been installed in the aircraft. The relief valve is installed on aircraft with the following serial numbers:

PA-31T Cheyenne/Cheyenne II 31T-7820047 through 31T-7920029.
PA-31T1 Cheyenne I 31T-7804004 through 31T-7904009.

and on aircraft which have complied with Service Bulletin No. 589A, dated August 17, 1978.

2. If Relief Valve Assy. (Piper Part No. 49755-02) has not been installed, order and install per attached sketch/instruction data; then proceed to step 3, below.
3. If Relief Valve Assy. (Piper Part No. 49755-02) is determined to have been installed, order and install Vacuum System Modification Kit (Piper Part No. 763 834) in accordance with the instructions contained in the kit.
4. When Relief Valve Assy. (Piper Part No. 49755-02) and Vacuum System Modification Kit (Piper Part No. 763 834) are installed, make appropriate logbook entry of compliance with Service Bulletin No. 589B.

Material Required:

1. One (1) each per aircraft Vacuum System Modification Kit, Piper Part No. 763 834.
2. If not previously installed per Instruction 1, above, one (1) each per aircraft Relief Valve Assembly, Piper Part No. 49755-02.

Availability of Parts:

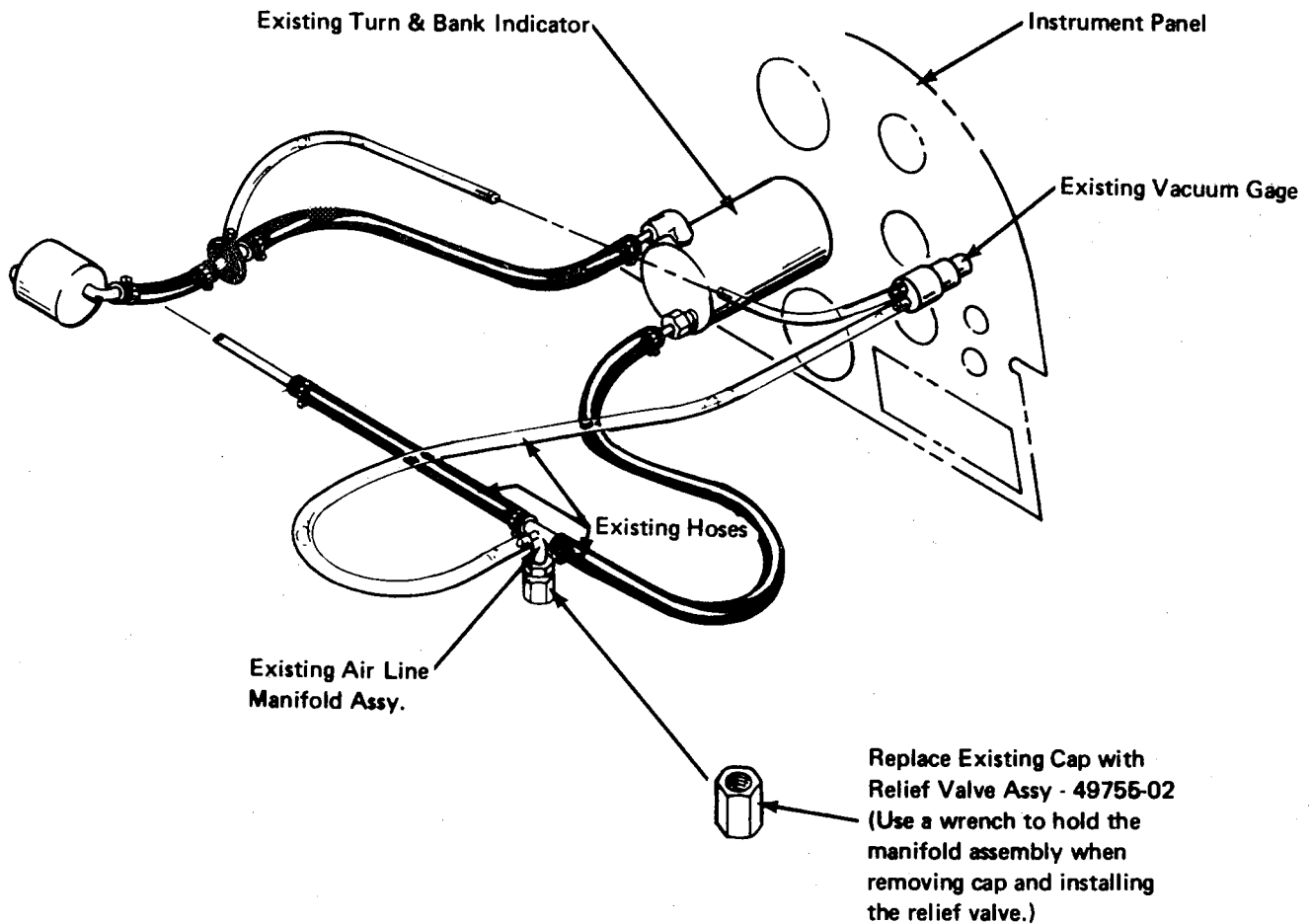
Your Piper Field Service Facility.

Effectivity Date:

This Service Release is effective upon receipt.

Summary:

Please contact your Piper Field Service facility to make arrangements for compliance with this Service Release in accordance with Compliance Time, above.



REAR VIEW OF INSTRUMENT PANEL SHOWN

INSTRUCTIONS

1. Locate the air line manifold assembly behind the instrument panel as shown above.
2. Remove cap from manifold assembly and install relief valve 49755-02 as shown.
(CAUTION: Use a wrench to hold the manifold assembly when removing cap and installing the relief valve.)
3. Make proper logbook entry of Service Bulletin 589A compliance.