



SERVICE LETTER

No. 784

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

September 27, 1976 M

Subject: Landing Gear Hydraulic System Refinement

Models Affected: Serial Numbers Affected:

PA-31 and PA-31-300 Navajo

31-2 to 31-694 Inclusive.

Compliance Time:

At owner/operator's discretion, recommended at the next regularly scheduled inspection/maintenance interval

Purpose:

A report has been received from the field describing an incident in which the main landing gear doors on an early PA-31 Navajo failed to open during landing gear extension. This condition was found to have been caused by an internal failure of the "Door Close" hydraulic line restrictor valve. One later model Navajos, this valve was replaced by a union coupling, and replacement is herein recommended for the above referenced aircraft (reference attached sketch/instruction sheet and Material Required No. 1, below).

Further, a second restrictor valve is located in the "Gear Up" hydraulic line (adjacent to the powerpak) and may be subject to the same internal failure, depending on the type of valve installed. This service release recommends an inspection (and replacement, if required - see attached sketch/instruction sheet and Material Required No. 2, below) to refine the subject system on the above referenced aircraft in accordance with current production configuration.

Instructions:

Contained on attached sketch/instruction sheet.

Material Required:

1. Reference attached sketch/instruction sheet, Instructions A: one (1) each per aircraft AN815-4D Union, Piper Part Number 491 050;
2. Reference attached sketch/instruction sheet, Instructions B: one (1) each per aircraft Restrictor Valve 484 459, if required, @ suggested unit list price \$52.50 C.

over

2920

Availability of Parts:

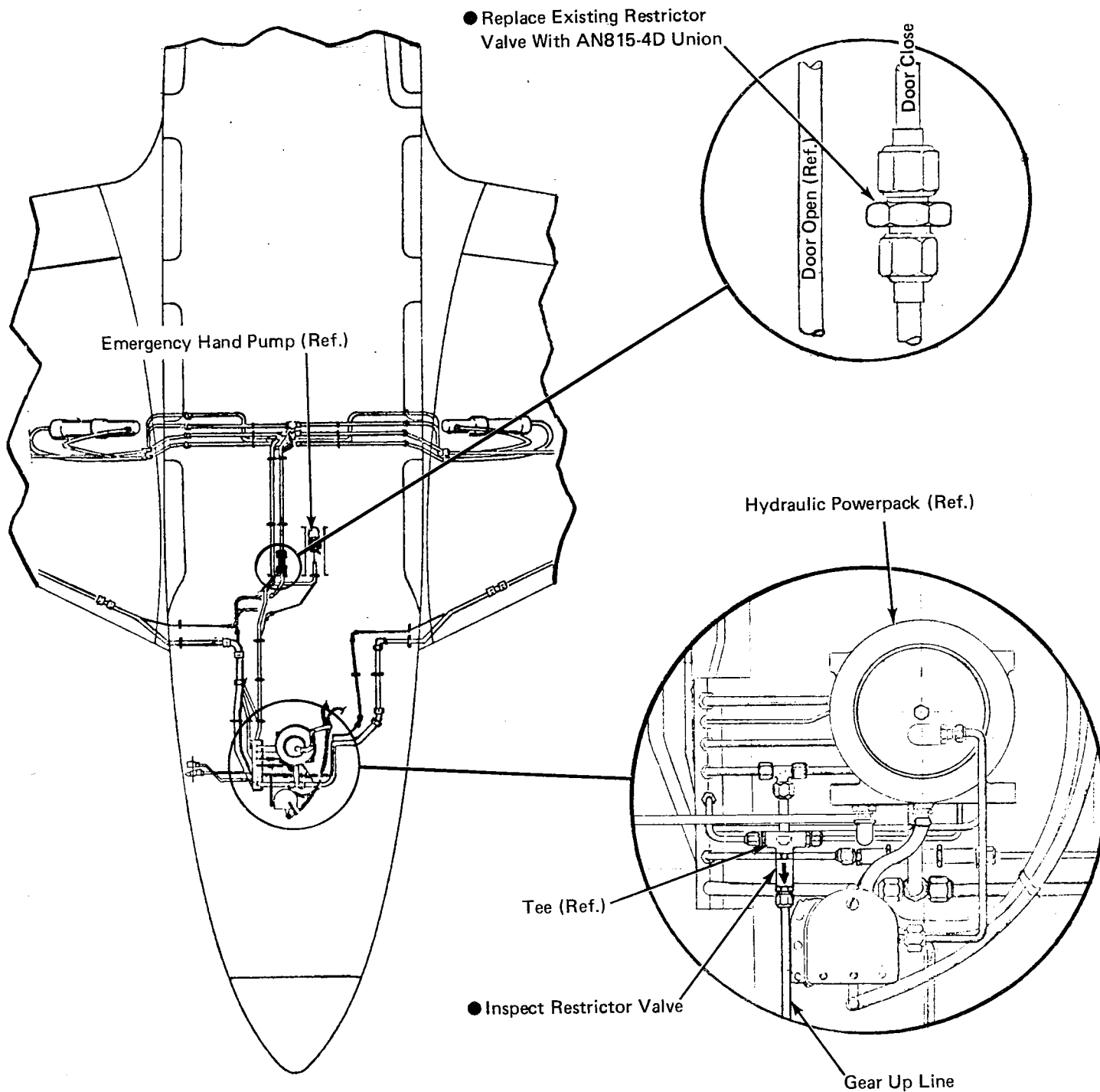
Your Piper Field Service Facility.

Effectivity Date:

This service release is effective upon receipt.

Summary:

Please contact your Piper Field Service Facility to make arrangements for the inspection/replacement provisions of this service release in accordance with the recommended Compliance Time, above. System refinement material specified in Material Required No. 1, above, will be supplied at a no charge through your Piper Field Service Facility for a period of time not to exceed twelve (12) months from the issue date of this service release.



VIEW LOOKING DOWN AT HYDRAULIC SYSTEM

INSTRUCTIONS

- A. Remove the center floorboard from the forward cockpit to gain access to the hydraulic lines forward of the main spar.
 1. Locate restrictor valve in "Door Close" hydraulic line. Remove valve and install AN815-4D union (P/N 491 050) as shown.
- B. Remove access panels from both sides of fuselage nose section to gain access to hydraulic powerpack.
 1. Locate restrictor valve in tee of "Gear Up" line and inspect to determine manufacturer of valve (company name appears on valve placard).
 - a. If TACTAIR appears on valve, no further action is required.
 - b. If TAVCO INC. appears on valve, replace with new valve P/N 484 459 as shown.
- C. Add hydraulic fluid to the powerpack and bleed the hydraulic system. Check to ensure there are no leaks.
- D. Reinstall fuselage access panels and center floorboard.
- E. Make proper logbook entry of Service Letter 784 compliance.

REF: S.L. #784