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SERVICE BULLETIN

SB051-0999

Subject: Lancair Gear Shuttle Valve (Lancair IV, IV -P)

Date: 15 October, 1999

Ref: Construction manual, chapter 26, page 33

Pages: 2

Status: Mandatory

Background: Some AN816-4-4D fittings used in the gear shuttle valve assembly were shipped with a smaller inside diameter than is required. This prevents the shuttle spring from extending into the fitting, causing the spring to fully compress and lock the shuttle valve ball closed. The hand pump will not operate correctly in this condition.

Action: If the hydraulic system is completed, perform an emergency gear extension test either in the air or on jack stands to determine proper hand pump operation.

1. Pull the gear breaker.
2. Position the gear lever in the down position.
3. Use the hand pump to lock the gear in the full down position.

To retract the gear, re-pressurize the system by pushing the gear breaker back in. Then move the gear lever into the gear up position.

If the hand pump does not operate properly, or if the assembly has not been completed, make sure that the spring (P/N 10877) will fit inside the AN816 -4-4D fitting.

Procedure:

1. If you have completed the system you must first remove the AN816-4-4D fitting on the starboard side of the shuttle valve.
2. Starting from the pipe-threaded end of the fitting, use a 1/4" drill bit to open up the inside diameter so that the spring will fit 1/2" deep into the fitting.
3. Insert the 10877 spring into the enlarged AN816-4-4D fitting and thread the assembly into the shuttle valve. See the figure and refer to the manual.

Note: Add a notation in your logbook that states:

Caution: It is recommended that a monthly emergency gear check be made during normal operations.

Figure 1

