



SERVICE *No.* 157D BULLETIN

* PIPER CONSIDERS *
* COMPLIANCE MANDATORY *

FAA Approved

Date April 22, 1986 S

(Service Bulletin No. 157D supersedes and voids Service Bulletin No. 157C, dated November 12, 1960.)

SUBJECT:

Lift Strut Fork Inspection and/or Replacement

REASON FOR REVISION:

1. Revise Compliance Time Below.
2. Add Aircraft Models.
3. Add new Lift Strut Fork Part Numbers.
4. Add Placard "No Step" Part Number.

MODELS AFFECTED:

J-2 Series, Cub
 J-3, NE-1, L-4 Cub
 J-4 Series Coupe
 J-5, J-5C, L-14, AE-1, HE-1 Series,
 Cub Cruiser
 PA-11 Series Cub Special
 PA-12 Series Super Cruiser
 PA-14 Series Family Cruiser
 PA-15 Vagabond
 PA-16 Series Clipper
 PA-17 Vagabond
 PA-18 Series, L-21A, L-21B, L-18
 Super Cub
 PA-19 Series Super Cub
 PA-20 Series Pacer
 PA-22 Series Tri-Pacer

SERIAL NUMBERS AFFECTED:

All
 All
 All
 5-1 through 5-1389
 11-1 through 11-1678
 12-1 through 12-4036
 14-1 through 14-523
 15-1 through 15-388
 16-1 through 16-736
 17-1 through 17-215
 18-1 through 18-8309025
 19-1 through 19-3
 20-1 through 20-1121
 22-1 through 22-9848

COMPLIANCE TIME:

- PART I - Within the next fifty (50) hours time in service.
 PART II - Within the next fifty (50) hours time in service, and every five hundred (500) hours thereafter.
 PART III - Every one-thousand (1000) hours of operation thereafter.

(over)
 ATA: 5701

PURPOSE Service experience indicates that continual operation on extremely rough terrain or rough water may possibly cause fatigue failure in the wing lift strut forks.

This Service Bulletin provides inspection and fatigue life requirements applicable to the wing lift strut forks. Failure to comply could lead to structural failure due to metal fatigue.

INSTRUCTIONS:

PART I --

1. Install "No Step" Decal, Piper Part Number 80944-02, on each wing lift strut approximately six (6) inches from the bottom of the struts, or paint the statement "NO STEP" in one (1) inch minimum high letters, in a color which contrasts with the airplane color, on each wing lift strut approximately six (6) inches from the bottom of the struts, and in such direction that the "No Step" caution can be read when entering and leaving the airplane.

PART II --

1. Remove lift strut forks and inspect for cracks by "magnetic" means.
2. Replace cracked lift strut forks before further flight with new lift strut forks listed below under Material Required.
3. For Aircraft Model Series PA-12, PA-14, PA-16, PA-18, PA-19, PA-20, PA-22, J-5, J-4, L-14, L-18, L-21, AE-1, and HE-1:
 - a. Inspect lift strut forks to insure that the threads are manufactured with rolled threads.
 - b. To distinguish between machined (cut) and rolled threads, a 10X-power magnifying glass should be used to examine the threads. A rolled thread is processed by a thread die configuration which upsets the material when forming the thread. This results in an even thread surface with generous radius in the root of the thread. A machined (cut) thread will show machining marks and "tear" areas on the thread surface along with sharp V-shaped roots, all caused by the cutting tool. Both conditions are easily discernible under a magnifying glass and not readily recognized with the naked eye.
 - c. For Models listed on Part II, Item 3, replace lift strut forks that have machined (cut) threads with new lift strut forks manufactured with rolled threads listed below under Material Required.
4. Model Series J-2, J-3, L-4, PA-11, PA-15, PA-17, and NE-1 Aircraft are approved to have lift strut forks manufactured with either machined (cut) or rolled threads.

PART III --

1. On all affected aircraft, replace lift strut forks prior to the accumulation of one-thousand (1,000) hours in service with new lift strut forks manufactured with rolled threads, per Material Required listed below.

MATERIAL REQUIRED:

<u>Aircraft Model</u>	<u>Qty.</u>	<u>Old P/N</u>	<u>New P/N with Piper Logo</u>
J-3, L-4, PA-11, NE-1	4 ea.	13770-00 Fork Assy.	13770-02 Fork Assy.
J-4	4 ea.	11431-00 Fork Assy.	11431-02 Fork Assy.
J-2, PA-15, PA-17	4 ea.	11281-00 Fork Assy.	11281-04 Fork Assy.
PA-12, PA-14, PA-16, PA-18, PA-19, PA-20, PA-22, J-5, L-14, L-21, AE-1, HE-1	4 ea.	14481-00 Fork Assy.	14481-02 Fork Assy.
All Models	4 ea.	-----	80944-02 "No Step" Decal

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 arrange for compliance with this Service Bulletin in accordance with Compliance Time, above.

NOTE:

If you are no longer in possession of this aircraft, please forward this information to the present owner.