



Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, FL, U.S.A. 32960

SERVICE NO. 1263 LETTER

Date: December 23, 2020

(M)

SUBJECT:

MAIN LANDING GEAR PISTON TUBE INSPECTION

MODELS AFFECTED:

PA-44-180 Seminole

PA-44-180T Turbo Seminole

SERIAL NUMBERS AFFECTED:

44-7995001 through 44-8195026; 4495001 through
4495013; 4496001 and up

44-8107001 through 44-8207020

COMPLIANCE TIME:

Initial inspection: For airplanes with main landing gear strut assemblies that have 6,500 hours or more time in service (TIS), and airplanes with an unknown service history of the main landing gear strut assemblies, initial inspection is to occur at the next regularly scheduled maintenance event, but not to exceed the next 100 hours TIS.

Recurring inspection: Thereafter, compliance is to be accomplished on a recurring basis at an interval not to exceed every 700 hours TIS.

The replacement of a main landing gear strut assembly with a new main landing gear assembly will relieve the recurring inspection requirement until the new replacement assembly accumulates 6,500 hours TIS.

APPROVAL:

The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

PURPOSE:

A review of service history reveals that fatigue cracks can develop in the main landing gear of the affected airplanes; specifically, at the bolt hole in the piston tube common to the fork. This service letter provides a schedule and instructions to inspect for cracks in the main landing gear.

This service letter is applicable to both the left and right main landing gear strut assemblies.

INSTRUCTIONS:

NOTE: Wipe the surfaces clean using a soft cloth dampened with isopropyl alcohol or mineral spirits prior to inspection.

The following instructions provide access for inspection without removing the main landing gear from the airplane. At the discretion of the owner/operator, the main landing gear may be removed from the airplane instead per Section 32-10-00 of the applicable Piper Airplane Maintenance Manual (AMM). Refer to Figure 1.

1. Place the airplane on jacks per Section 7-10-00 of the applicable Piper AMM.
2. Place a drip pan under the main gear to catch spillage.
3. Depress air valve core pin until strut pressure has been thoroughly depleted.
4. Remove the bolt that fastens the piston tube to the fork, noting the orientation of the hardware for reinstallation. The interference fit between the piston tube and the fork should retain the two assemblies in place during this inspection. O-ring friction should retain the piston tube plug and hydraulic fluid during this inspection.
5. Visually inspect the inner surface of the bolt hole in the piston tube, two places, as identified in Figure 1, View B–B, for cracks. Perform the inspection using a miniature optical inspection mirror capable of inspecting a quarter (1/4) inch diameter hole to a depth of a half (1/2) inch.

NOTE: One suitable optical inspection mirror is the M90T – Thin Metron MiniMirror series of optical inspection mirrors, available from Metron Optics Inc. (<http://www.metronusa.com>). Alternatively, any inspection method capable of equivalent or better resolution may be used.

- **If no cracks are found**, then proceed to Step 6.
 - **If any crack is found**, the main landing gear strut assembly must be replaced prior to next flight. Order and install a new Main Gear Strut Assembly, Piper part number (P/N) 67037-006. Upon completion, proceed to Step 7.
6. Reinstall the bolt that was removed in Step 4. Torque to 50–90 in-lb.
 7. Service the oleo strut with fluid and nitrogen per Chapter 12 of the applicable Piper AMM.
 8. Check main gear alignment and gear operation per Section 32-10-00 of the applicable Piper AMM. Confirm that the gear is down and locked.
 9. Remove the airplane from jacks.
 10. Make a logbook entry documenting compliance with this service letter.

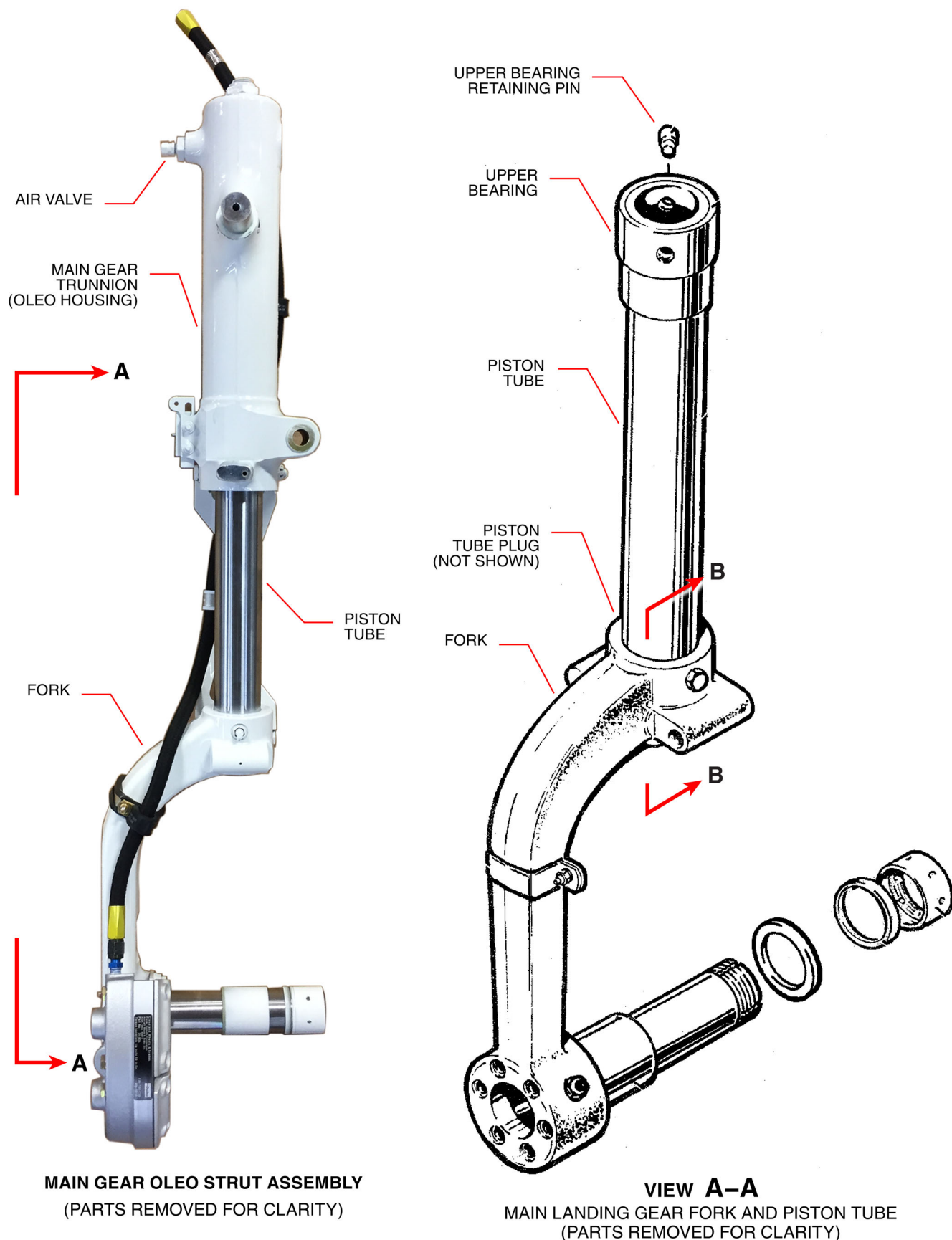
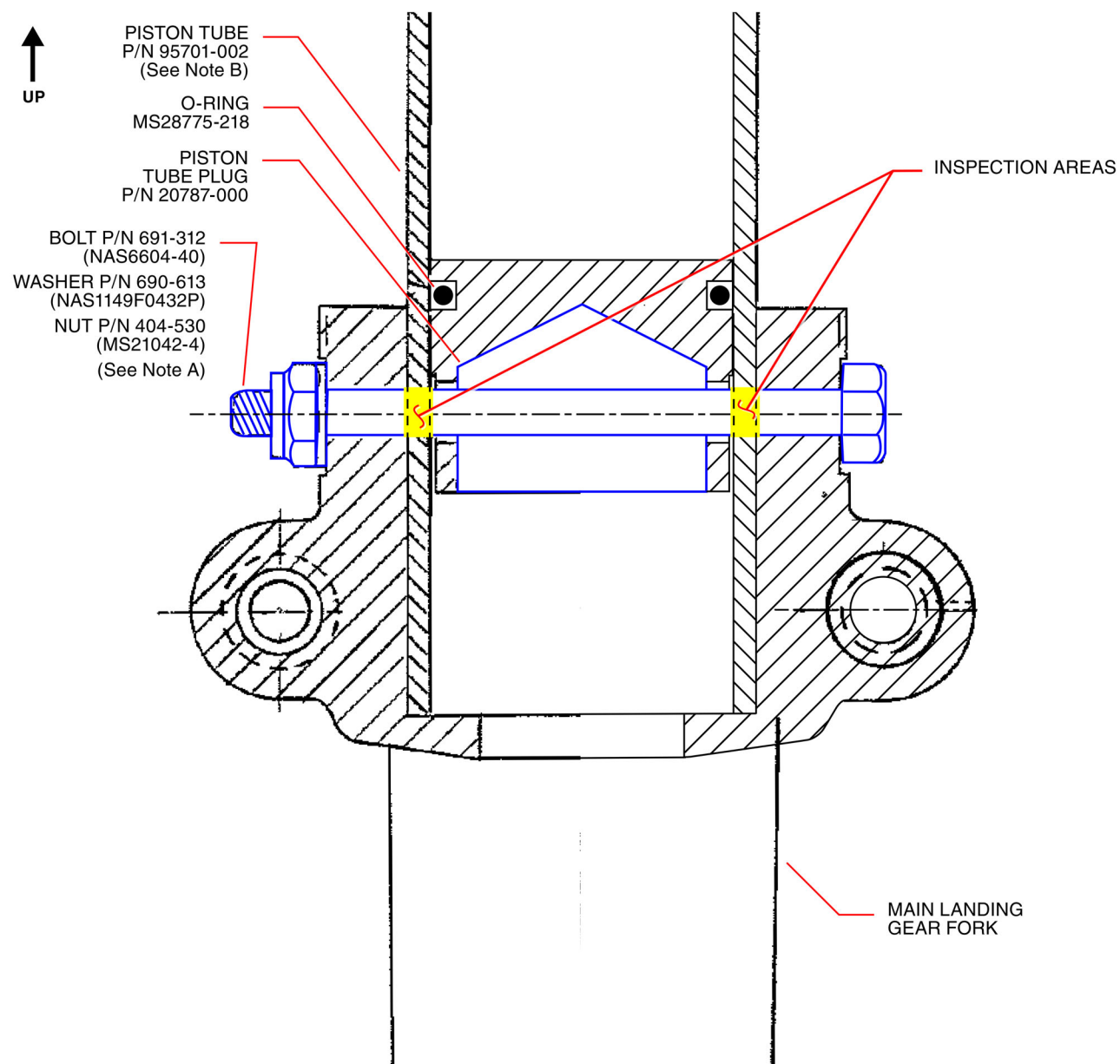


Figure 1, Sheet 1 of 2
Main Landing Gear Strut Assembly



NOTE A: Remove for inspection. For reinstallation, torque the nut to 50–90 in-lb.

NOTE B: For Piston Tube, earlier models may have P/N 67039-000 or P/N 95701-000 installed.

VIEW B-B
FORK ASSEMBLY

Figure 1, Sheet 2 of 2
Main Landing Gear Strut Assembly

MATERIAL REQUIRED: Per aircraft, on condition, quantity (one each per side) as required:

- Strut Assembly – Main Gear, Piper P/N 67037-006
- Bolt, Washer, and Nut defined in View B–B

AVAILABILITY OF PARTS: Your Piper Approved Service Center

EFFECTIVITY DATE: This service letter is effective upon receipt.

SUMMARY: Please contact your Piper Approved Service Center to make arrangements for compliance with this service letter in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.
Attn: Customer Service
2926 Piper Drive
Vero Beach, FL 32960
or:
CustomerService@piper.com
Please include in subject line: "Aircraft ownership update"