

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

# SERVICE No. 1199 BULLETIN

## PIPER CONSIDERS COMPLIANCE MANDATORY

Date: February 16, 2009 (S)

#### SUBJECT:

### MAIN LANDING GEAR TORQUE LINK INSPECTION

#### **MODELS AFFECTED:**

PA-28-140 Cherokee Cruiser

PA-28-150 Cherokee PA-28-160 Cherokee PA-28-180 Cherokee

PA-28-235 Cherokee Pathfinder

PA-28-235 Cherokee Pathfinder PA-32-260 Cherokee Six 260

PA-32-300 Cherokee Six 300

#### **SERIAL NUMBERS AFFECTED:**

28-20001 through 28-26946; 28-7125001 through

28-7725290

28-03; 28-1 through 28-4377 & 28-1760A

28-03; 28-1 through 28-4377 & 28-1760A

28-03; 28-671 through 28-5859 & 28-7105001 through

28-7205318

28-10001 through 28-11378; 28-7110001 through

28-7210023

28E-11 & 28-7310001 through 28-7710089

32-03; 32-04; 32-1 through 32-1297; 32-7100001

through 32-7800008

32-15; 32-21; 32-40000 through 32-40974;

32-7140001 through 32-7940290

**COMPLIANCE TIME:** 

To coincide with next regularly scheduled maintenance event, but not to exceed

the next one hundred (100) hours time in service.

APPROVAL:

The technical content of this Service Bulletin has been shown to comply with the

applicable Federal Aviation Regulations and is FAA approved.

**PURPOSE:** A service history review of main landing gear torque links indicates a need to revise the inspection schedule originally published in Piper Service Letter 600.

Additionally, this Service Bulletin provides a visual means of identifying the early style torque link, which is subject to a recurring inspection and a life-limit.

SB 1199 supersedes Service Letter 600 in it's entirety.

Piper Service Letter 621 lists replacement parts using an earlier numbering convention. Therefore, there are slight differences between part numbers listed in Piper Service Letter 621 and this Service Bulletin, which lists the same parts using the current numbering convention. Aircraft that have replacement torque links installed in accordance with Piper Service Letter 621 are also in compliance with this Service Bulletin. No additional action is required if Service Letter 621

has been accomplished.

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#### **INSTRUCTIONS:**

#### PART I IDENTIFICATION

- 1. Locate the torque links, which are a component of the main landing gear, both left and right sides. There are a total of 4 torque links per aircraft. See Figure 1.
- 2. Determine which torque links are currently installed.
  - Figure 2 shows the new style torque link, Piper part number 78033-000. The midsection of this new style torque link is rectangular in cross section, with 4 longitudinal grooves (2 per side), as shown in the section view of Figure 2. The new style 78033-000 torque link is exempt from the recurring inspection requirement of Service Letter 600 and this Service Bulletin. Proceed to Part III if all four (4) torque links are the new style, Piper part number 78033-000.
  - Not shown is the old style torque link, Piper P/N 65691-000, which was originally installed on the aircraft. This old style torque link differs in appearance from the new style P/N 78033-000 torque link at the midsection. The old style 65691-000 torque link has an oval cross section, whereas the new style 78033-000 torque link has a rectangular cross section, as described above. Any old style 65691-000 torque links installed on aircraft are subject to the inspection requirements and life limits described in Part II of this Service Bulletin.
- Note Both the old style and new style torque links are made from aluminum forgings. As part of a standard fabrication process, these forgings undergo heat tempering operations, machining operations, have grease fittings installed, and receive a topcoat of paint to become the finished product that is installed on the aircraft. Any raised characters or other markings found on the torque link may be identifying part numbers of the forging itself, and not the part number of the finished product torque link. Therefore, any part number found on a torque link is not an adequate means of identifying which type (old or new style) of torque link is currently installed on the aircraft. The only acceptable method of distinguishing old style torque links from new style torque links is a visual examination of the torque link midsection, as described above.

#### PART II INSPECTION

Any old style 65691-000 torque links in service are subject to a recurring inspection, to be accomplished every 100 hours of service, as described in the steps below. Any old style 65691-000 torque links with 5,000 or more hours of time in service must be replaced with new style 78033-000 torque links, regardless of condition. Inspect the old style 65691-000 torque links for cracks as follows:

- 1. Place the aircraft on jacks and remove the main landing gear wheel assemblies in accordance with the Aircraft Maintenance Manual.
- 2. Remove paint from the area to be inspected, at the locations identified in Figure 1. (Use Cee-Bee A-202 paint stripper or equivalent).

Note: Paint must be removed using chemical processes only. The use of abrasives or other mechanical methods to remove the paint will hide the existence of any cracks, making an accurate inspection impossible.

- 3. Use isopropyl alcohol to wipe clean the area of the torque links where paint was removed.
- 4. Perform fluorescent penetrant inspection of the areas identified in Figure 1 per AC 43.13-1B.
- 5. If a crack is detected in any torque link, the torque links must be replaced in pairs, using the new style 78033-000 torque links. See MATERIAL REQUIRED section of this service bulletin.
- 6. If no crack is detected during the inspection, wipe torque links clean with isopropyl alcohol.
- 7. Apply primer to Torque links in area where paint was removed for inspection; using MIL-PRF-85582D Type I Class C2 primer; ANAC 10P8-10 Fluid Resistant Epoxy primer or any compatible epoxy primer. Apply top coat of paint using Dupont White (color code N00009 HN) Imron 5000-Texture A (smooth finish).
- 8. Reinstall main wheel assemblies.
- 9. Remove jacks from aircraft.

#### PART III

Make a logbook entry indicating compliance with this service bulletin.

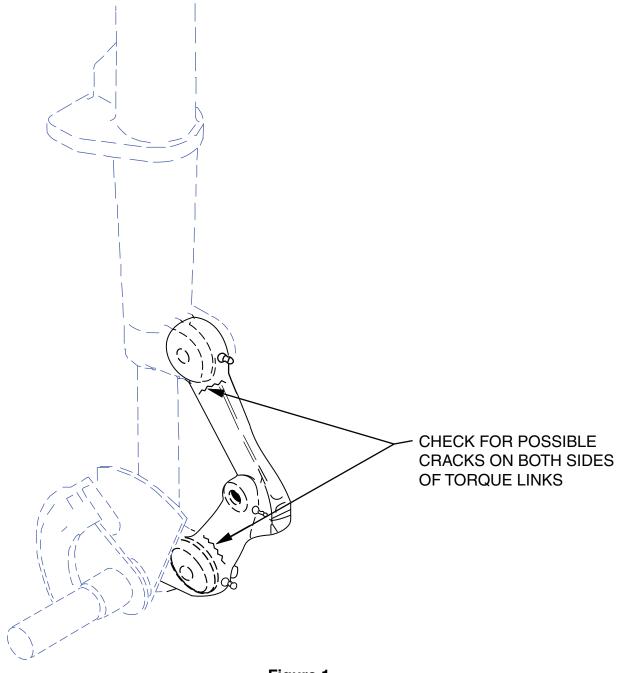


Figure 1

Location of Torque Links and Inspection Area

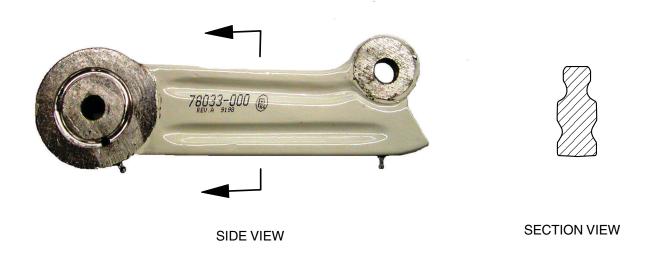


Figure 2
New Style Torque Link 78033-000

#### **MATERIAL REQUIRED:**

Qty	Piper P/N	<u>Nomenclature</u>
<ul><li>2 (on condition, per side)</li><li>2 (on condition, per side)</li></ul>	78033-000 63312-002	LINK ASSEMBLY – TORQUE WASHER – TORQUE LINK BOLT

**AVAILABILITY OF PARTS:** Your Piper Service Facility.

**EFFECTIVITY DATE:** This Service Bulletin is effective upon receipt.

SUMMARY: Please contact your Factory Authorized Piper Service Facility to make

arrangements for compliance with this Service Bulletin in accordance with the

compliance time indicated.

**NOTE:** If you are no longer in possession of this aircraft, please forward this information to

the present owner/operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, 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