



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

SERVICE NO. 1131A BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: January 18, 2016

(S)

Service Bulletin (SB) 1131A supersedes SB 1131 in its entirety. Aircraft that have previously complied with SB 1131 are in compliance with SB 1131A until the next regularly scheduled maintenance event.

SUBJECT:

**INSPECTION OF 'CAST' MAIN LANDING GEAR
STRUT CYLINDERS**

REASON FOR REVISION:

SB 1131A adds instructions and illustrations to clarify the inspection procedure

MODELS AFFECTED:

PA-28-140 Cherokee Cruiser
PA-28-150 Cherokee
PA-28-151 Warrior
PA-28-160 Cherokee
PA-28-161 Warrior II
PA-28-161 Warrior III
PA-28-161 Cadet
PA-28-180 Cherokee
PA-28-180 Archer
PA-28-235 Cherokee Pathfinder
PA-32-260 Cherokee Six 260

SERIAL NUMBERS AFFECTED:

28-20001 through 28-7725290
28-1 through 28-4377, 28-1760A
28-7415001 through 28-7715314
28-1 through 28-4377, 28-1760A
28-7716001 through 2816109
2816110
2841001 through 2841365
28-3 through 28-7205318
28-E13, 28-7305001 through 28-7505259
28-10001 through 28-7710089, 28-E11
32-1 through 32-7800008

COMPLIANCE TIME:

To coincide with next regularly scheduled maintenance event, but not to exceed the next 100 hours time in service, and at each 100 hour inspection thereafter

PURPOSE:

A review of service difficulty reports concerning failures of the “cast” main landing gear strut cylinders (Piper P/N 65319-002, -003, -004) indicates a need to implement a periodic inspection requirement to inspect the upper torque link attach lugs for cracks.

These “cast” main landing gear strut cylinders have been replaced on the Warrior III and the Archer III aircraft with a stronger, “forged” landing gear strut cylinder (Piper P/N 65490-000).

For those aircraft that do not have the “forged” landing gear strut cylinder, this service bulletin incorporates a 100 hour recurrent inspection requirement to inspect for cracks at the torque link attach lugs on the “cast” main landing gear strut cylinders.

This publication also announces the availability a “forged” strut cylinder which, when installed, eliminates the recurrent inspection requirement. Those aircraft that have replaced both right hand and left hand “cast” main gear strut cylinders with the “forged” strut cylinders are exempt from this periodic inspection requirement.

INSTRUCTIONS:

For aircraft having the “cast” main landing gear strut cylinders (P/N's 65319-002, -003 or -004), perform the following inspection each 100 hours of aircraft operation.

Instructions that follow apply to both left and right main landing gear.

1. Disconnect the torque link assembly by removing the cotter pin, nut, washers and bolt at the location indicated in Figure 1. Discard the cotter pin. Note the arrangement of all hardware, including shims and spacers, for reinstallation. To provide access for this inspection, rotate the torque link assembly away from the torque link attach lugs.
2. Thoroughly clean the area to be inspected as indicated in Figures 1 and 2, using a suitable cleaner.
3. Using a 10X power magnifying glass, visually inspect the radii of the main landing gear strut cylinder's torque link attach lugs for cracks. Refer to Figures 1 and 2 for the inspection locations. If no cracks are found by visual inspection, proceed to liquid penetrant inspection per Chapter 5, Section 5, of FAA Advisory Circular AC 43.13-1B, to check for cracks. Strip the paint and primer from the areas to be inspected using a commercially available chemical paint stripper, taking care to only remove paint and primer from the inspection areas.
4. If a crack is detected, prior to further flight replace the “cast” main gear strut cylinder with the “forged” main gear strut cylinder per the applicable Piper Airplane Maintenance Manual (see Material Required, below, for the appropriate part number to order).

Installation of the “forged” main gear strut cylinder in both the right hand and left hand gear position eliminates the need for the 100 hour repetitive inspection requirement for the aircraft.

5. If no cracks are detected, then thoroughly clean the affected surfaces and touch up the primer and paint where it was removed.
6. Reconnect the torque link assembly to the main landing gear strut cylinder:
 - Reinstall all components that were removed in Step 1, being careful to return all components to their original location.
 - Install a new cotter pin, part number specified in the appropriate Piper Airplane Parts Catalog.
7. Make a logbook entry documenting compliance with this service bulletin.

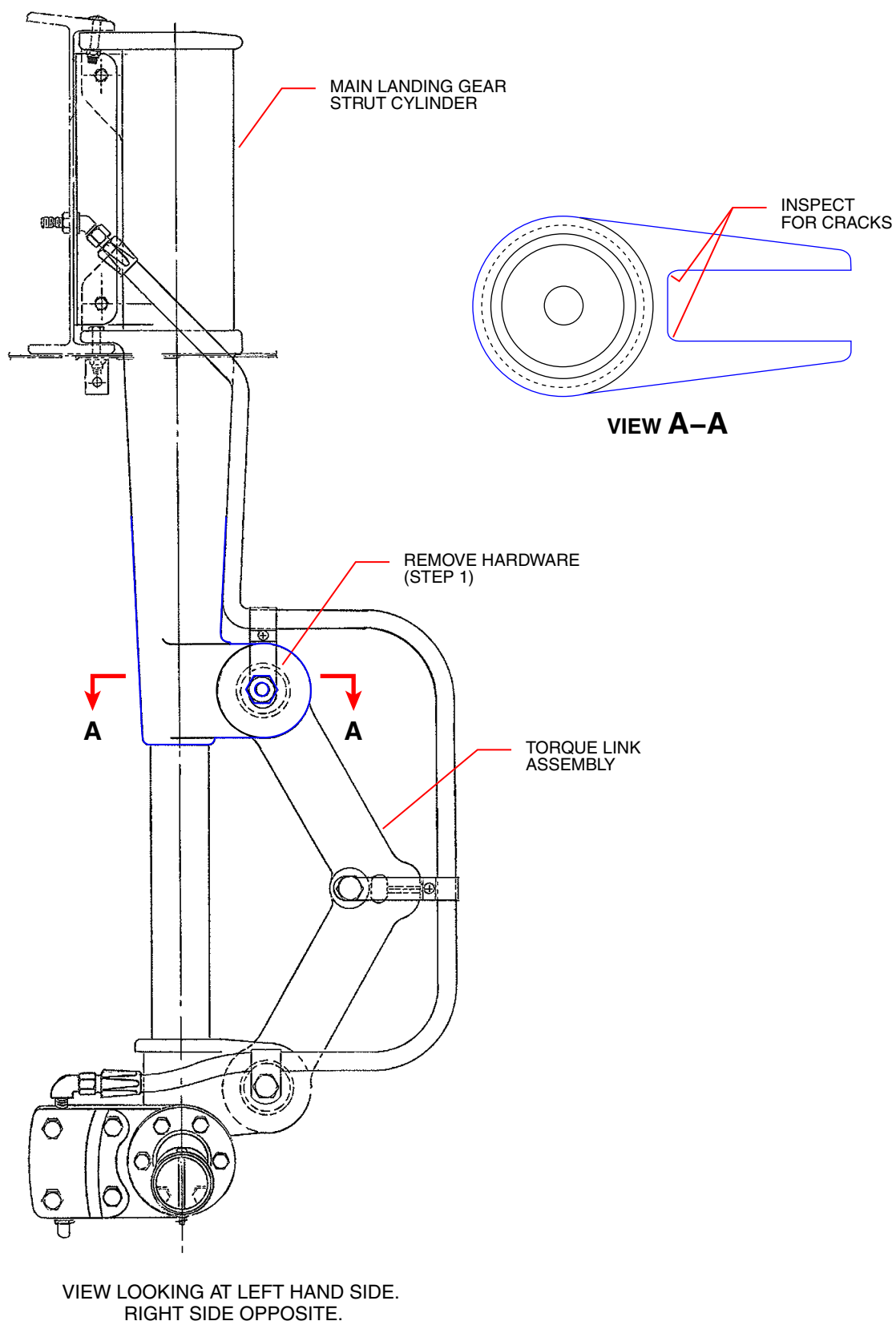


Figure 1
Inspection Area

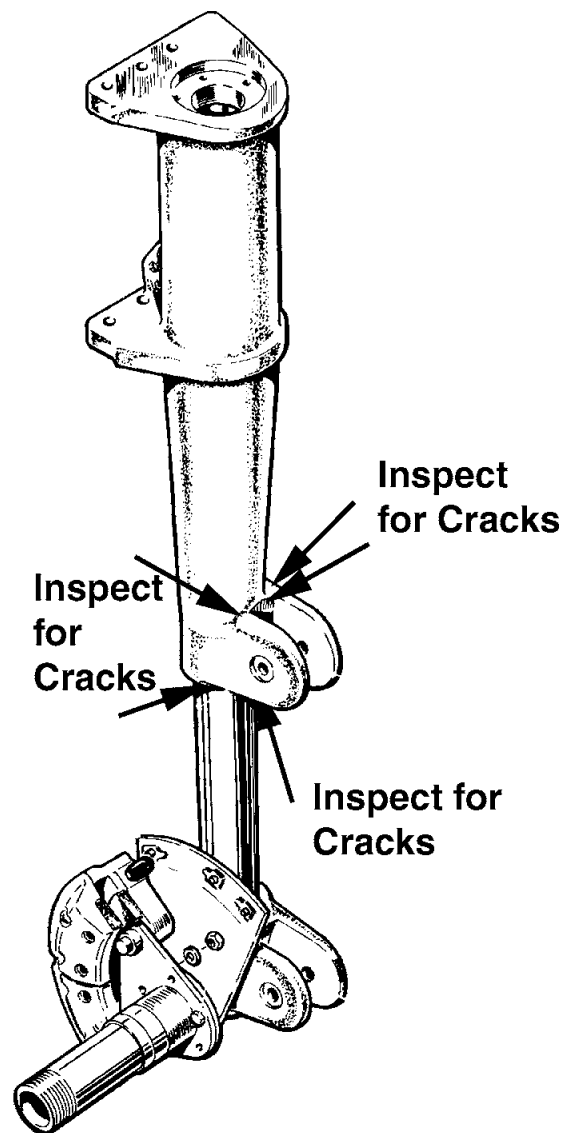


Figure 2
Inspection Area

MATERIAL REQUIRED:

On condition, two (2) each, complete main gear cylinder (forged) assembly, Piper P/N 65489-002, per aircraft

NOTE: The cylinder assembly of P/N 65489-002 is a finished unit that requires only the installation of the stub axle and oleo strut assembly prior to installing the gear assembly to the aircraft.

The Main Gear Cylinder Assembly P/N 65489-002 contains the following parts:

Quantity	Part Number	Nomenclature
1	63307-000	Spacer Ring
1	63314-000	Retainer Ring
1	65488-000	Head Assembly
1	65490-000	Cylinder (forged)
2	151-296	Lock Wire
6	401-918	Bolt
2	462-036	Gasket
1	484-769	Quad Ring
1	486-188	Scraper

AVAILABILITY OF PARTS:

Your Factory Authorized 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: 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