

LANDING GEAR ACTUATOR – ROD SEAL LEAKAGE – INSPECT / REPLACE

- EFFECTIVITY:** Parker Hannifin, Aircraft Wheel & Brake, Landing Gear Retract Cylinder P/N SFA232-5 (The New Piper Aircraft Inc. P/N 96860-2, part code 455-994) consisting of all non-serial numbered units. Newly manufactured actuators identified with a part number SFA232-5 Rev B or later revision and serial number or factory overhauled units identified with part number SFA232-5 Rev B or later revision, and units upgraded per SB7076 with Mfg date 02R03 or later date will already contain the product improvements presented in this service bulletin.
- APPLICABILITY:** The New Piper Aircraft Inc. aircraft models PA-28R series, PA-32R series, PA-34 series, and PA-44 series, equipped with the Parker Hannifin, Aircraft Wheel & Brake, Landing Gear Retract Cylinder P/N SFA232-5. This actuator is used in the main gear location of all models listed, and also in the nose gear location on aircraft model PA-34 series only.
- REASON:** Product Improvement: Reports of external fluid leakage at the rod end gland seal resulting in reduced service life have been received.
- DESCRIPTION:** This document provides the necessary instructions to inspect, remove and replace or overhaul the referenced retract cylinders. In addition to the new end gland to rod seal, an improved piston seal has also been introduced. A service bulletin kit, P/N SB7076-1 has been created to upgrade affected actuators to the P/N SFA232-5 Rev B or later revision improved version.
- Failure to comply with this service bulletin may result in continued leakage and may affect the ability of the cylinder to retract or extend the landing gear in the event of excessive fluid leakage past the rod seal.
- To obtain a factory overhaul, affected retract cylinders are to be returned to Parker Hannifin through an Authorized Piper Distributor.
- COMPLIANCE:** **Mandatory:** Perform the attached accomplishment instructions within 25 hours after receipt of this service bulletin, next 100 hour or annual inspection, whichever comes first.
- WEIGHT & BALANCE:** No change
- PUBLICATIONS:** The information contained in this service bulletin will be incorporated at time of next revision of the CMSFA232-5, Component Overhaul and Maintenance Manual.



SERVICE BULLETIN

MATERIALS:

All parts are to be ordered through The New Piper Aircraft Inc. See Description paragraph above for explanation of how the following kit is to be used.

SB7076-1 Service Bulletin Upgrade Kit: This kit will upgrade one non-serialized P/N SFA232-5 actuator to the current improved seal configurations for the end gland and piston. All components except for the aluminum cylinder body and swivel bearing are to be replaced. To facilitate service bulletin upgrade accomplishment the new seal and wear ring have been removed from the seal repair kit and pre-installed in the 141-01902 End Gland to create the SB7076-2 End Gland Assy. The following parts are included in each SB7076-1 upgrade kit.

<u>Part Number:</u>	<u>Description</u>	<u>Qty</u>
SB7076-2	End Gland Assy (consists of the following parts)	1
067-15600	Wear Ring (removed from 199-538A Kit)	1 Ref
101-63500	Seal (removed from 199-538A Kit)	1 Ref
141-01902	End Gland	1
182-02502	Piston Rod	1
166-19800	Nameplate (See instructions below)	1
199-538A	Seal Repair Kit	1
SB7076	Service Bulletin	1

166-19800 Nameplate Completion Instructions For SB7076:

Part Number: SFA232-5 Rev B (or later current revision in effect)

Rating: 2000PSI

Fluid: MIL-H-5606

Customer P/N field: Upgraded per SB7076

Cure Date Text Field: Cure Date

Cure Date: (Qtr)Q(Year)

Mfg. Date: 02R03 (Date to default to current month nameplate is printed)

ACCOMPLISHMENT INSTRUCTIONS:

- 1) Inspect all new stock, spares stock and affected aircraft for part number SFA232-5 retract cylinders that are **not serialized**.
- 2) If the affected retract cylinders are not found, compliance with this Service Bulletin has been achieved and no further action is required. Make an appropriate airframe logbook entry of compliance.
- 3) If the affected retract cylinders are found, inspect each actuator for leakage. Leakage is defined as fluid accumulating on the outside of the gland and running off the piston rod, falling from the rod end bearing. The rod, ball end bearing, linkage and wheel well may be splattered with fluid. Leakage is not to be confused with the build up of a soft partial or continuous stationary ring of dust, fluid, and inert material accumulated at the end of the rod. This is a normal condition particularly for the new configuration.
- 4) If the affected retract cylinders are not found to be leaking, it is permissible to keep them in service and re-inspect at each 100 hour or annual inspection, whichever comes first. Make an appropriate airframe logbook entry of compliance.
- 5) If affected retract cylinders are found to be leaking on the aircraft they will need to be replaced or overhauled. Overhaul or replace actuators and perform landing gear rigging and cycle checks in accordance with Piper Service Manual. Make an appropriate airframe logbook entry of compliance and return aircraft to service.