



VSP - 155
DATE: June 25, 2003 (S) (M)

VENDOR SERVICE PUBLICATION

TO: All affected owners/operators

SUBJECT: Distribution of: Cleveland Wheels & Brakes (Parker Hannifin) SB 7076

MODELS AFFECTED:

SERIAL NUMBERS:

PA-28R 180 Arrow	28R-35001 through 28R-35820 & 28R-7135001 through 28R-7135229
PA-28R 200 Arrow	28R-30002 through 28R-31270 & 28R-7130001 through 28R-7130013
PA-28R 200 Arrow II	28R-7235001 through 28R-7635545
PA-28R 201 Arrow III	28R-7737002 through 28R-7837317, 2837001 through 2837061 & 2844001 through 2844096
PA-28R 201T Arrow III	28R-7703001 through 28R-7803374, 2803001 through 2803012
PA-28RT 201 Arrow IV	28R-7918001 through 28R-7918267, 28R-8018001 through 28R-8218026
PA-28RT 201T Arrow IV	28R-7931001 through 28R-8631005, 2831001 through 2831013
PA 32R-300 Lance	32R-7680001 through 32R-7880068
PA 32RT-300 Lance II	32R-7885002 through 32R-7985106
PA 32RT-300T Lance II	32R-7787001, 7887002 through 32R-7987126
PA-32-301 Saratoga	32-8006002 through 32-8606023 & 3206001 through 3206019
PA-32-301T Saratoga	32-8024001 through 32-8424002
PA 32R-301 Saratoga SP	32R-8013001 through 32R- 8613006, 3213001 through 3213028, & 3213030 through 3213041
PA 32R-301T Saratoga SP	32R-8029001 through 32R- 8629008 & 3229001 through 3229003
PA 32R-301 Saratoga II HP	3246001 through 3246213
PA 32R-301T Saratoga II TC	3257001 through 3257324
PA-34-200 Seneca	34-7250001 through 34-7450220
PA-34-200T Seneca II	34-7570001 through 34-8170092
PA-34-220T Seneca III	34-8133001 through 34-8633031, 3433001 through 3433172 & 3448001 through 3448037
PA-34-220T Seneca IV	3448038 through 3448079 & 3447001 through 3447029
PA-34-220T Seneca V	3449001 through 3449287
PA-44-180 Seminole	44-7995001 through 4495013 & 4496001 through 4496173
PA-44-180T Seminole	44-8107001 through 8207020

COMPLIANCE TIME:

Per Cleveland Wheels & Brakes (Parker Hannifin) SB 7076

ATA: 2800

PURPOSE:

Product Improvement: Reports of external fluid leakage at the rod end gland seal resulting in reduced service life have been received.

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.

ACTION:

1. Comply with Cleveland Wheels & Brakes (Parker Hannifin) SB 7076

NOTE: The parts required to comply with this publication must be obtained through your authorized New Piper Aircraft Parts Distributor. The following New Piper part numbers have been assigned to these parts.

<u>New Piper P/N</u>	<u>Cleveland (Parker) P/N</u>	<u>Nomenclature</u>
767-370 "O"	SB7076-1	Service Bulletin Upgrade Kit
455-994 (96860-003)	SFA 232-5 (Rev B or later revision)	Improved Landing Gear Retract Actuator

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.