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Aircraft Wheel & Brake
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Avon, Ohio 44011 USA
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440-937-1213 • FAX 440-937-5409

PRODUCT REFERENCE MEMO

MOLDED GREASE SEAL AVAILABILITY FOR 40-133, 40-139, 40-175, AND 40-403 WHEEL ASSEMBLIES

1. PLANNING INFORMATION

A. APPLICABILITY

The following Parker Hannifin, Aircraft Wheel & Brake Division wheel assembly part numbers are applicable:

40-133	40-139	40-175	40-403
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B. REASON

A product improvement in the bearing grease retention system as a replacement to the current felt seal configuration. Product will be provided as a spares replacement.

C. DESCRIPTION

The new molded seals will replace both inner and outer felt seal components in the subject wheel assemblies. This PRM provides the replacement instructions.

(1) 154-13800 Molded Seal

Refer to Figure 1 for the new 154-13800 molded seal configuration and the corresponding current felt seal configuration.

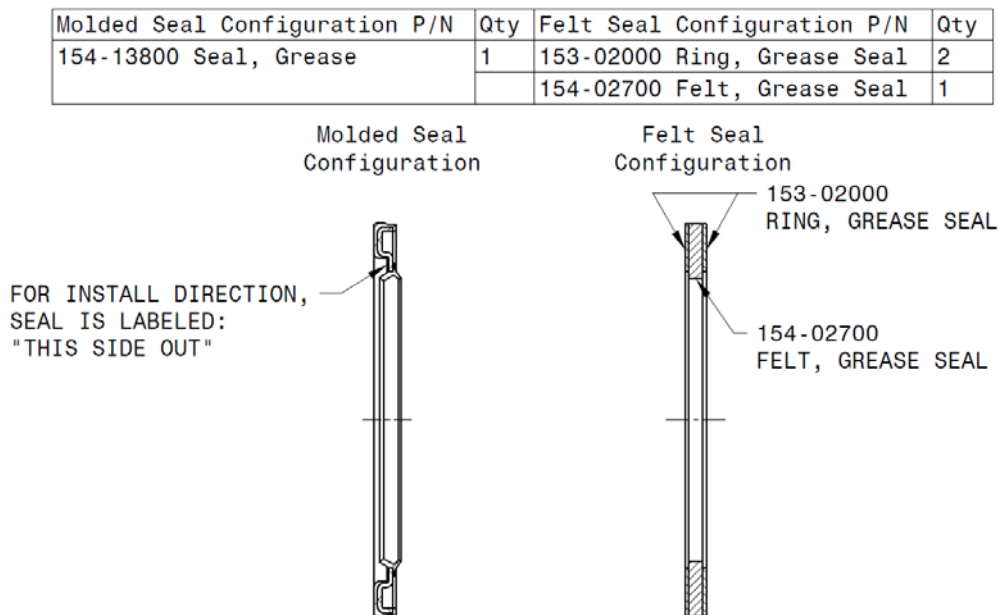


Figure 1 154-13800 Molded seal to felt seal comparison

Initial Release 02-24-2016

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D. COMPLIANCE

Recommended. At next annual inspection, scheduled overhaul or at owner's discretion.

E. APPROVAL

The engineering contents of this Product Reference Memo are FAA DER approved.

F. MANPOWER

0.25 hr. approximate to replace seals per wheel assembly. Does not include time for aircraft prep or wheel assembly removal from aircraft.

G. TOOLING

No additional special tooling is required.

H. WEIGHT AND BALANCE

Not affected.

I. REFERENCES

AWBCMM0001Component Maintenance Manual for External Design Wheels & Brakes

J. OTHER PUBLICATIONS AFFECTED

AWBPC0001Product Catalog

WebsitePRM will be made available on the Parker website.

2. ACCOMPLISHMENT INSTRUCTIONS

A. SUPPORT

In addition to or in absence of individual wheel assembly maintenance manuals, refer to the following publications, published by Parker Hannifin – Aircraft Wheel and Brake, for disassembly and assembly procedures; service limits, general maintenance guidelines, and applicable related data. Always obtain the latest issue in effect.

AWBCMM0001Component Maintenance Manual, External Design Wheels & Brakes

AWTSG0001Technician's Service Guide (formerly PRM64)

Contact technical support for additional assistance.

Parker Hannifin Corporation
Aircraft Wheel & Brake Division
1160 Center Road
Avon, Ohio 44011 U.S.A.
Attn: Technical Services/Hotline

Websites: www.parker.com
E-mail: clevelandwbhelp@parker.com
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B. REPLACEMENT INSTRUCTIONS

The felt seal configuration applies to the inboard wheel half side only. The outboard wheel half side uses a hubcap. Replace the inboard felt seal configuration as follows.

SAFETY WARNING:  **DEFLATE THE TIRE. WORKING ON OR NEAR A FULLY INFLATED TIRE CAN BE DANGEROUS.**

- (1) Deflate the tire.
- (2) Loosen the back plate assembly tie bolts which fasten the back plate(s) to the brake housing. Remove the back plate(s).
- (3) Remove any additionally equipped components necessary to expose the axle mounting hardware such as a dust shield.
- (4) Remove and retain the axle mounting hardware and slide the wheel/tire assembly off of the axle.
- (5) Remove the snap ring from the inboard wheel half.
- (6) Remove the felt seal components: 2X 153-02000 grease seal ring and 1X 154-02700 grease seal felt from the inboard wheel half.

Note: Before installing the molded seal, lubricate the surfaces shown in Figure 2 with the wheel bearing grease.

- (7) Install the 154-13800 molded seal. Make sure the molded seal is installed correctly by observing **"THIS SIDE OUT"** in molded characters on the seal.
- (8) Reinstall the snap ring.
- (9) Slide the wheel assembly onto the axle and install the axle mounting hardware accordance with the Airframe Owner's Handbook manual or wheel assembly component maintenance manual if so equipped. Make sure the inboard bearing is seated.
- (10) Fasten the back plate(s) to the brake housing by installing the tie bolts. Tighten to specifications in accordance with the brake assembly component maintenance manual or, if one does not exist, AWBCMM0001, Component Maintenance Manual, External Design Wheels & Brakes.
- (11) Install any additionally equipped components such as a dust shield.
- (12) Inflate the tire to the service inflation pressure.

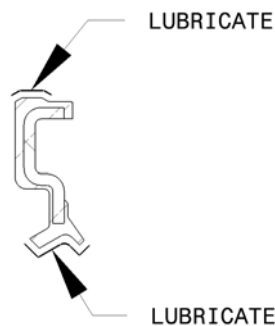


Figure 2 Lubricate seal surfaces

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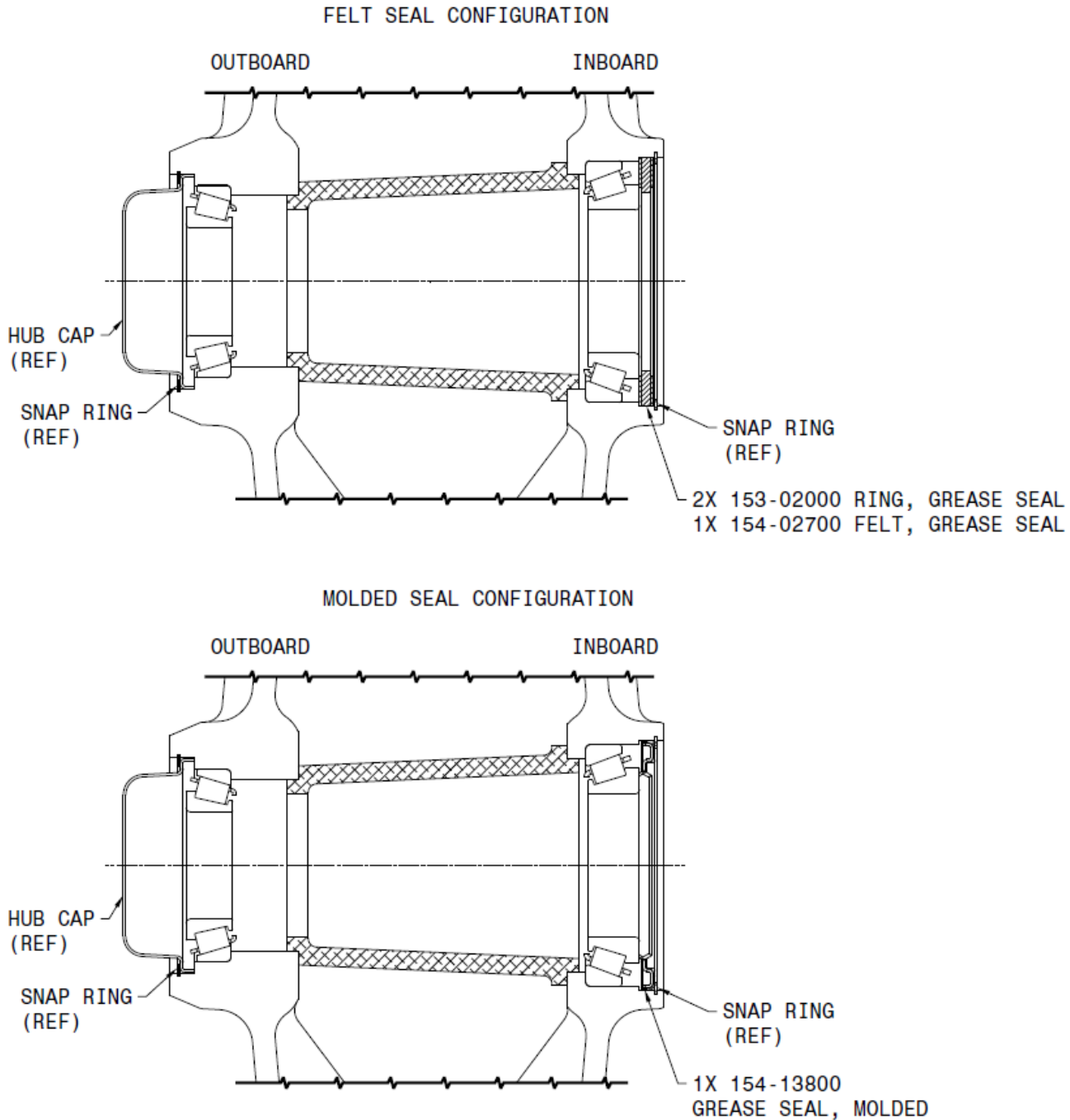


Figure 3 Felt seal configuration replacement

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3. MATERIAL INFORMATION

A. MATERIAL-REQUIREMENTS

Consumable products:

- Wheel bearing grease

Contact Parker Hannifin for replacement hardware availability.

Parker Hannifin Corporation
Aircraft Wheel & Brake Division
Technical Service Hotline: 1-800-BRAKING
Customer Support Fax: 440-937-5409
E-mail: clevelandwbhelp@parker.com

B. LIST OF COMPONENTS

NOTE: Quantities are per wheel assembly.

New part number	Name	Qty	Old part number	Name	Qty	Operation
154-13800	Grease seal, molded	1	153-02000	Ring, grease seal	2	Replace
			154-02700	Felt, grease seal	1	Replace

C. INTERCHANGEABILITY

154-13800 replaces and is not interchangeable with 153-02000 and 154-02700.

D. PARTS DISPOSITION

Discard the following removed components from each wheel assembly:

P/N 153-02000Ring, grease seal, qty 2
P/N 154-02700Felt, grease seal, qty 1

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