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PRODUCT REFERENCE MEMO

MOLDED GREASE SEAL AVAILABILITY FOR 5-INCH EXTERNAL WHEEL

1. PLANNING INFORMATION

A. APPLICABILITY

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

40-87	40-87A	40-87C	40-87H	40110	40-110B	40-152
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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. New product use will initiate January, 2015.

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) 154-13100 Molded Seal

Refer to Figure 1 for the new 154-13100 molded seal configuration and the corresponding current felt seal configuration.

Molded Seal Configuration P/N	Qty	Felt Seal Configuration P/N	Qty
154-13100 Bearing Seal	1	153-00100 Ring, Grease Seal	2
		154-00100 Felt, Grease Seal	1

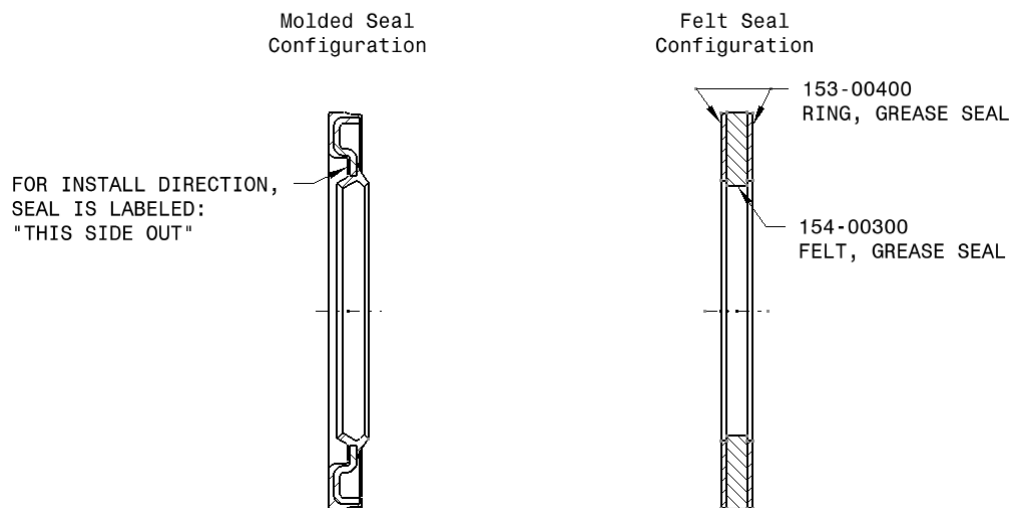


Figure 1 154-13100 Molded seal to felt seal comparison

Initial Release January 15, 2015

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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

None.

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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Tel: 1-800-BRAKING (1-800-272-5464)

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B. REPLACEMENT INSTRUCTIONS

Replace the inboard and outboard felt seal configurations 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 rings from both wheel halves.
- (6) Remove the felt seal components: 2X 153-00100 grease seal ring and 1X 154-00100 grease seal felt from each wheel half.

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

- (7) For each wheel half, install the 154-13100 molded seal. Make sure the molded seal is installed correctly by observing “**THIS SIDE OUT**” in molded characters on the seal.
- (8) Install the snap rings for each wheel half.
- (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.

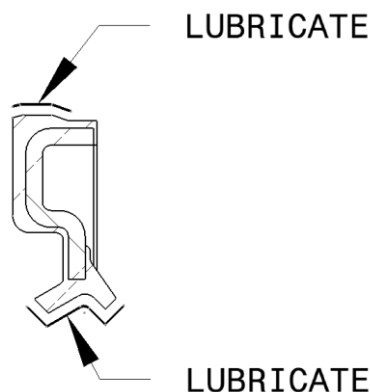


Figure 2 Lubricate seal surfaces

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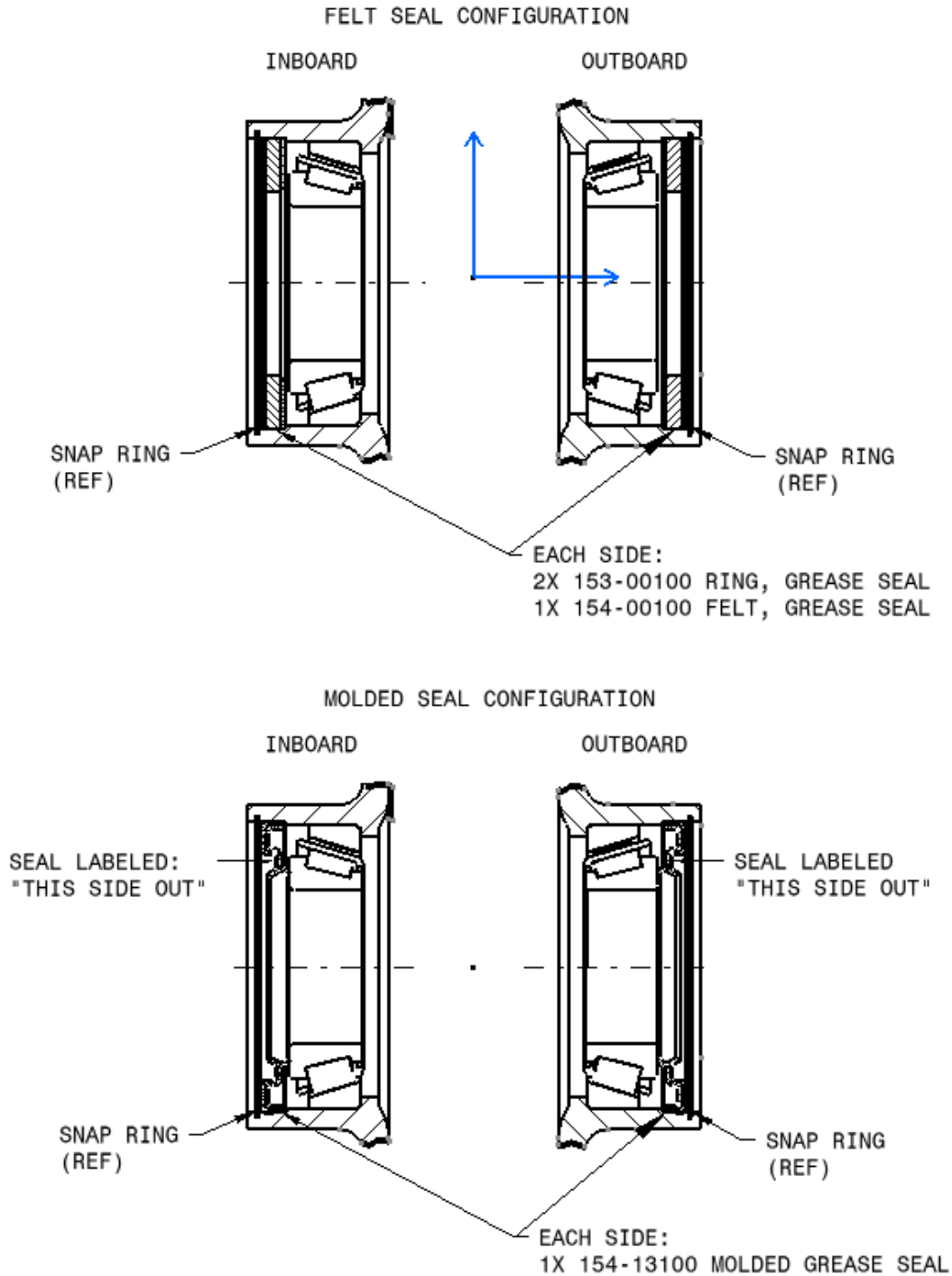


Figure 3 Felt seal configuration replacement



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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
154-13100	Grease seal, molded	2	153-00100	Ring, grease seal	4	Replace
			154-00100	Felt, grease seal	2	Replace

C. INTERCHANGEABILITY

154-13100 replaces and is not interchangeable with 153-00100 and 154-00100.

D. PARTS DISPOSITION

Discard the following removed components from each wheel assembly:

- P/N 153-00100Ring, grease seal, qty 4
 P/N 154-00100Felt, grease seal, qty 2

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