



Parker Hannifin Corporation
 Aircraft Wheel & Brake
 1160 Center Road
 Avon, Ohio 44011 USA
 1-800-BRAKING (272-5464)
 440-937-1213 • FAX 440-937-5409

SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

1. PLANNING INFORMATION

A. APPLICABILITY

This service bulletin is applicable to the Parker Hannifin PN 40-59A wheel assembly used on the following aircraft:

Costruzioni Aeronautiche Tecnam aircraft models P2006T and P2010.

B. REASON

Product improvement. The new configuration grease seal will provide an improved interface with the aircraft axle.

C. DESCRIPTION

This document provides the necessary instructions to upgrade the 40-59A wheel assembly to the 40-59B configuration. Replacement parts may be procured under Service Bulletin Kit PN SB7118-1 from Parker Hannifin distributors or from the airframe manufacturer.

(1) Parts affected.

Table 1

40-59A Wheel Assembly		
Items removed and discarded		
Part Number	Description	Qty
154-12000	Grease Seal	1

40-59B Wheel Assembly		
Items installed to upgrade (SB7118-1 kit)		
Part Number	Description	Qty
154-03000	Grease Seal	1
166-19700	Nameplate (install over existing 166-19700)	1

D. COMPLIANCE

Recommended. At customer convenience.

E. APPROVAL

This service bulletin is approved for support of an FAA TSO-C26 product.

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SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

F. MANPOWER

Unknown.

G. TOOLING

No additional special tooling is required.

H. WEIGHT AND BALANCE

Not affected.

I. REFERENCES

AWBPC0001 Product Catalog

AWBCMM0001 Component Maintenance Manual - External Design Wheels & Brakes

AWBTSG0001 Technician's Service Guide

J. OTHER PUBLICATIONS AFFECTED

AWBPC0001 Product Catalog

AWBCMM0001 Component Maintenance Manual - External Design Wheels & Brakes

AWBTSG0001 Technician's Service Guide

K. PREVIOUS MODIFICATIONS

None.

2. ACCOMPLISHMENT INSTRUCTIONS

Instructions are per wheel assembly.

Note: Use the following publications for additional part identification and on-aircraft/off-aircraft maintenance support including instruction for product inspection, repair and refinishing:

AWBPC0001 Product Catalog

AWBCMM0001 Component Maintenance Manual - External Design Wheels & Brakes

AWBTSG0001 Technician's Service Guide



SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

A. REMOVE THE WHEEL ASSEMBLY

SAFETY WARNING: WEAR THE APPROPRIATE PROTECTIVE CLOTHING AND EYEWEAR BEFORE DOING THE WORK.

SAFETY WARNING: FOLLOW THE AIRFRAME MANUFACTURER'S INSTRUCTIONS AND SAFETY WARNINGS WHEN WORKING AROUND THE AIRCRAFT.

SAFETY WARNING: FULLY DEFLATE THE TIRE BEFORE REMOVING WHEEL/TIRE UNIT FROM THE AIRCRAFT.

(1) Refer to the airframe manufacturer's instructions to lift and support the aircraft.

NOTE: The brake disc is sandwiched between components of the brake assembly (back plate and pressure plate assemblies). The back plate assemblies must first be removed before the wheel assembly can be removed from the axle. Refer to AWBPC0001, Product Catalog, for brake assembly component identification.

(2) Fully deflate the tire in accordance to the airframe manufacturer's instructions.

(3) Remove the wheel dust shield, if mounted.

(4) Refer to Figure 1. Remove the two bolts and washers from the brake cylinder and remove the back plate assembly.

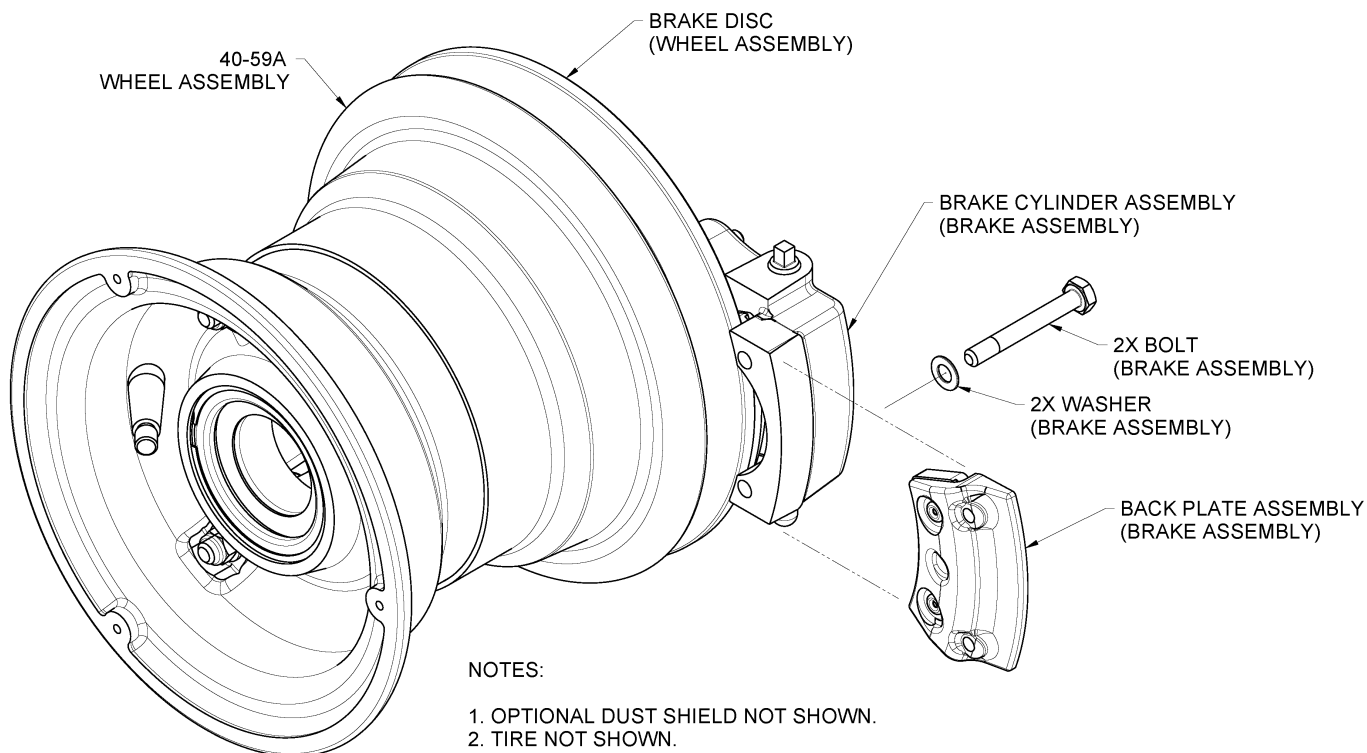


Figure 1 Remove the brake back plate assembly



SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

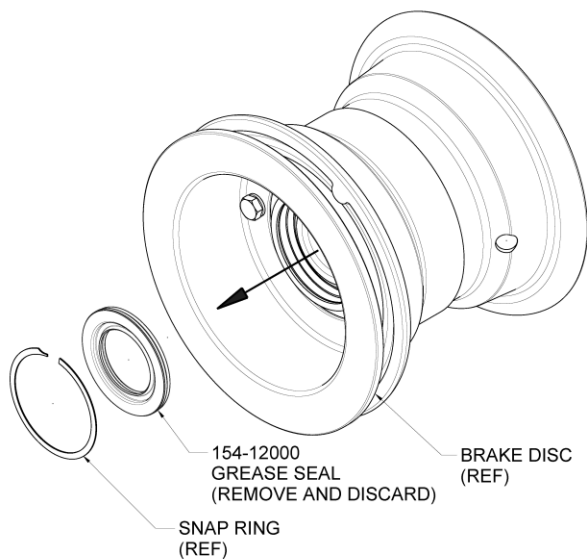
- (5) Slide the brake from the torque plate.
- (6) Secure the brake out of the way to prevent damage to the brake components and hydraulic connections.
- (7) Remove the axle mounting hardware per airframe manufacturer's instructions and remove the wheel/tire unit from the axle.
- (8) Check to make sure the tire is fully deflated. Refer to the airframe manufacturer's instructions.

B. REPLACE GREASE SEAL

Refer to Figure 2.

- (1) Remove the following from the inboard wheel half and place items on a clean surface to avoid contamination.
 - Snap ring, PN 155-00100. Retain the snap ring.
 - Grease seal, PN 154-12000. Discard the grease seal.
- (2) Install the following in the inboard wheel half in the order listed.
 - Grease seal, PN 154-03000. Replaces 154-12000. Lightly coat all contact surfaces of the seal with the wheel bearing grease.
 - Snap ring, PN 155-00100.

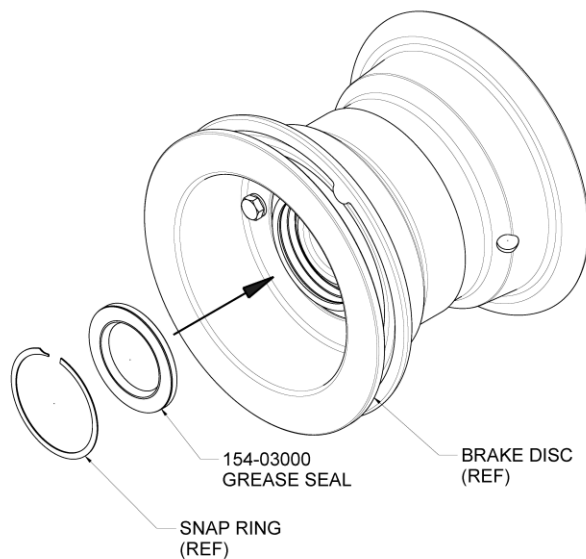
**40-59A WHEEL ASSEMBLY
INBOARD GREASE SEAL CONFIGURATION**



NOTES:

1. BRAKE ASSEMBLY NOT SHOWN.
2. TIRE NOT SHOWN.

**40-59B WHEEL ASSEMBLY
INBOARD GREASE SEAL CONFIGURATION**



NOTES:

1. BRAKE ASSEMBLY NOT SHOWN.
2. TIRE NOT SHOWN.

Figure 2 Replace grease seal



SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

C. INSTALL NEW NAMEPLATE

NOTE: A new nameplate, PN 166-19700, will be installed over the existing nameplate, PN 166-19700.

- (1) Surface preparation
 - (a) Surfaces must be clean, dry and dust free. The existing nameplate may be wiped lightly with a clean cloth dampened in butyl alcohol or LPS® ZeroTri Super Cleaner/Degreaser, or equivalent.
 - (b) For adhesive backed nameplates, the temperature of adhesives and surfaces should be at least 65 °F.
- (2) Application
 - (a) Remove the protective backing from the nameplate. Apply nameplate over the existing nameplate by applying only one side of the label to the component. Next, roll the remaining portion of the label using a roller or your finger starting from the fixed side. This method is used to eliminate air bubbles and ensure full contact of the label.
- (3) Cleanup
 - (a) Wipe off excess adhesive with a clean cloth dampened in LPS® ZeroTri Super Cleaner/Degreaser, or equivalent, while the adhesive is still wet.

D. INSTALL THE WHEEL ASSEMBLY

SAFETY WARNING: WEAR THE APPROPRIATE PROTECTIVE CLOTHING AND EYEWEAR BEFORE DOING THE WORK.

SAFETY WARNING: FOLLOW THE AIRFRAME MANUFACTURER'S INSTRUCTIONS AND SAFETY WARNINGS WHEN WORKING AROUND THE AIRCRAFT.

- (1) Inflate the tire in a safety cage to the recommended operating pressure per the airframe manufacturer's instructions.
- (2) Install the wheel/tire assembly onto the axle and install the axle hardware per the aircraft maintenance manual.
- (3) Install the brake assembly by sliding the anchor bolts into the torque plate bushings. A dry film lubricant (for your climate environment) should be applied to the anchor bolts and torque plate bushings to provide ease of installation and operation. Refer to AWBCMM0001 or AWBTSG0001 for a list of dry film products.
- (4) Attach the back plate assemblies to the brake cylinder with the back plate attachment bolts and washers. Torque bolts to the requirements for the brake assembly that is being reinstalled. Refer to AWBCMM0001 or AWBTSG0001 for torque requirements.
- (5) Attach the wheel dust shield, if used.

E. LOGBOOK ENTRY

- (1) Make the appropriate airframe logbook entry of compliance.



SERVICE BULLETIN

UPGRADE OF 40-59A WHEEL ASSEMBLY TO 40-59B CONFIGURATION

3. MATERIAL INFORMATION

A. MATERIAL-REQUIREMENTS

Parker Hannifin Kit P/N SB7118-1 will service both landing gear wheel assemblies and includes the following:

<u>Parker Hannifin P/N</u>	<u>Description</u>	<u>Quantity</u>
154-03000	Grease seal	2
166-19700	Nameplate	2

Consumable products (not provided in SB7118-1):

- Butyl alcohol or LPS® ZeroTri Super Cleaner/Degreaser, or equivalent
- Dry film lubricant
- Mobil Aviation Grease SHC 100 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	Qty	Operation
154-03000	Grease seal	1	154-12000	1	Replace
166-19700	Nameplate	1	166-19700	1	Install over

C. INTERCHANGEABILITY

None.

D. PARTS DISPOSITION

Discard the following removed components from each wheel assembly:

P/N 154-12000Grease seal, qty 1