

Wheels & Brakes

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SERVICE BULLETIN

UPGRADE OF 10-30 and 10-30B MASTER CYLINDER ASSEMBLY TO 10-30D

EFFECTIVITY: Parker Part Number 10-30 and 10-30B Master Cylinder Assemblies

- APPLICABILITY: Grob Aerospace GmbH Model G109B, G115, and G120 aircraft equipped with 10-30 or 10-30B master cylinder assemblies. New 10-30D master cylinders are configured to be directly interchangeable with and replace the 10-30B and the 10-30 assemblies that have been modified to meet the 10-30B configuration.
- REASON: Parker created the 10-30D configuration to accommodate the more robust piston retention method required for Grob applications. Due to the loads seen during aerobatic operation, separation of piston retainer ring may occur and cause loss of directional control and compromise brake effectiveness.
- DESCRIPTION: The 10-30D Master Cylinder provides extended service life with a revised piston retention method, new piston, and enhanced check valve seal. Mounting arrangements and pressure rating remain the same as the 10-30B configuration.
- COMPLIANCE: **MANDATORY** for aerobatic certificated aircraft. Perform the accomplishment instructions at earliest convenience before next annual inspection.

RECOMMENDED for utility certificated aircraft. Perform the accomplishment instructions at earliest convenience before next overhaul. Spares for the 10-30B configuration are no longer supported.

APPROVAL: The design contents of this Service Bulletin are approved by Grob Aerospace GmbH. This document provides the necessary instructions to upgrade the 10-30 and 10-30B assemblies to the 10-30D configuration. The required hardware is identified in the MATERIALS section. Replacement parts may be procured from Grob Aerospace GmbH as Service Bulletin part number SB7093-1 or a factory built master cylinder part number 10-30D. Service Bulletin SB7093 may **ONLY** be performed on 10-30B and 10-30 master cylinders assemblies which currently meet the 10-30B configuration that are installed in the aforementioned Grob aircraft.

All FOUR master cylinders are to be upgraded to or exchanged with 10-30D units. Mixed configurations are not approved.

WEIGHT & BALANCE: No change.

Initial Release 5/7/2008





SERVICE BULLETIN

MATERIALS:

Service Bulletin SB7093 may be satisfied by one of two methods;

1. ordering and installing Service Bulletin Kit part number SB7093-1.

FOUR SB7093-1 kits must be ordered for each aircraft.

Kit parts list for Service Bulletin Kit P/N SB7093-1, Upgrade of Part Number 10-30 or 10-30B Master Cylinder Assembly to 10-30D configuration, includes the following:

Parker P/N	Description	<u>Quantity</u>
182-08500	Piston Rod assembly	1
155-04700	Snap Ring	1
166-26900	Nameplate	1
SB7093	Service Bulletin (This Document)	1

Each Service Bulletin Kit P/N SB7093-1 will upgrade ONE master cylinder.

OR,

2. by ordering and installing a factory built master cylinder part number 10-30D.

Parker P/N	Description	<u>Quantity</u>
10-30D	Master Cylinder Assy.	4

SERVICE BULLETIN



ACCOMPLISHMENT INSTRUCTIONS:

The 10-30B master cylinder assembly and 10-30 assemblies which have previously been reworked into the 10-30B configuration may be converted to the 10-30D configuration. The 10-30 configuration did not bear an original serial number from the Parker Aircraft Wheel and Brake Division. Alternately factory built master cylinder assemblies part number 10-30D may be installed.

1) During or before next overhaul remove existing master cylinders and replace each unit with a factory built master cylinder part number 10-30D.

2) If step 1 has been completed proceed to step 9. If installing Service Bulletin Kit part number SB7093-1 remove and disassemble the existing master cylinders in accordance with CM10-30, Revision C or subsequent revisions.

3) Discard rod assembly part number 182-07900.

4) Inspect cylinder body for overall serviceable condition. Examine bore for damage and wear that would render the body unserviceable. Replace as required.

5) Complete reassembly of Master Cylinder incorporating Service Bulletin Kit part number SB7093-1 shown above by installing new piston rod assembly (182-08500) and snap ring (155-04700) with sharp edge of ring facing away from gland.

6) Clean body with Zero Tri ® (Product of LPS Laboratories, Tucker, GA, USA.) or other non- CFC, non-trichloroethane, greaseless cleaner to remove all oil residues. Nameplates will not adhere to dirty or oily surfaces. Apply new nameplate on opposite side from original nameplate.

CAUTION: DO NOT REMOVE CURRENT NAMEPLATE(S). RETAIN ORIGINAL DATE OF MANUFACTURE AND SERIAL NUMBER. DO NOT CONTAMINATE SEALS WITH CLEANER.

7) The oldest o-ring cure date is included on the replacement nameplate but may also be added in permanent ink on body adjacent to added nameplate.

8) Test per CM10-30, Revision C or subsequent revisions. Available on-line at <u>www.clevelandwheelsandsbrakes.com</u>

9) Mount cylinders in aircraft and bleed to remove all traces of air from the hydraulic system per airframe maintenance manual.

10) Record the overhaul activity in the aircraft log noting serial number removed, date removed, date, serial number replaced, flight hours on master cylinder at time of removal, and flight hours at time of reinstallation



SERVICE BULLETIN

VISUAL DISTINCTION:



182-08500 Piston Rod Assembly supplied in 10-30D



¹⁸²⁻⁰⁷⁹⁰⁰ Piston Rod Assembly supplied in 10-30 and 10-30

SB 7093 Page 4 of 4 Initial Release 5/7/2008