

ROYAL CANADIAN AIR FORCE



**HANDBOOK WITH PART LIST
BRAKE ASSEMBLY FOR
11.00-12 MAIN WHEEL
EXPEDITOR, OTTER, H34A
GOODYEAR PART 530886SG**

"REVISION"

NOTICE

**LATEST REVISED PAGES
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Insert revised pages into basic
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PART 1**GENERAL DESCRIPTION****INTRODUCTION**

1 This brake assembly will be inspected and maintained in accordance with EO 15-45-2. EO 15-45-3 provides cleaning, inspection, repair and surface treatment for all aircraft brakes at overhaul. This Engineering Order provides specific instructions for the Goodyear Part 530886SG brake assembly. This EO replaces EO 15-45BB-3 and EO 15-45BB-4 only insofar as it affects brake assembly Part 530886SG.

LEADING PARTICULARS

2 The leading particulars are:-

Aircraft Applicability - Expeditor - Otter - H34A

Functional Test Pressure	800 psi.
Minimum Disc Thickness	.360 in.
Cylinder Head Torque (4)	75 lb. ft.
Adjusting Nut Torque (3)	25 lb. ft.
Cylinder Wear Limits	2.136 in. dia.
Use Oversize Piston	9522145
Oversize Cylinder Diameter	2.175 ± .001 in. dia.
Brake Lining Wear (Housing to Disc Brakes Applied)	.438 in.
Minimum Lining Thickness At outer edge	1/16 in.
Piston Adjustment	None

SPECIAL TOOLS

3 None.

DISASSEMBLY

4 Disassemble in the same order as the key index numbers assigned to the exploded view illustration, see Figure 2-1.

CLEANING

5 Clean brake assembly as follows:-

(a) Wash all metal parts with cleaning solvent PB Specification 3-GP-8a (No. P-S-661) and dry.

- (b) Wash all rubber parts in denatured alcohol or clean hydraulic fluid, Specification 3-GP-26a (MIL-0-5606).

INSPECTION

- 6 Inspect brake assembly as follows:-
- (a) Inspect all castings for cracks or damage.
 - (b) Inspect housing cylinder walls for wear or damage.
 - (c) Inspect all threads for cleanliness and condition.
 - (d) Inspect brake discs for wear, shrinkage and dishing.
 - (e) Inspect adjusting pins for wear or damage.
 - (f) Inspect brake linings for wear.

REPAIR AND REPLACEMENT

- 7 Repair and replace brake assembly as follows:-
- (a) Replace cracked or damaged castings.
 - (b) If cylinder walls are worn or damaged they can be polished to the diameter given in the table of leading particulars. If worn beyond this diameter, they can be machined to the oversize diameter given and assembled with the oversize piston. Working surfaces of the cylinder walls must be polished and free from pits and other imperfections to a 15 RMS finish. Concentricity with the adjusting pin hole must be maintained. Treat the machined surfaces and stamp the letters "XX" after the assembly number to indicate oversize pistons required.
 - (c) If brake discs are worn below the minimum disc thickness given in the table of leading particulars they should be replaced. Discs which have dished to a point which will cause brake drag or have shrunk to a point where very little clearance remains between the inside diameter and the housing should be repaired or replaced.
 - (d) Adjusting pins which have small nicks or impressions in the sealing surfaces of .003 inch or less in depth are acceptable; however, raised metal from such nicks shall be removed by polishing. Grip holding surfaces of pins which are tapered or reduced in diameter in the operating length more than .0005 inch should be replaced.
 - (e) Replace all packings and gaskets.
 - (f) Replace complete set of brake linings. Never mix new and used brake linings in a brake.

LUBRICATION

- 8 Lubricate as follows:-
- (a) Lubricate housing cylinder walls and contacting surfaces of pistons and their "O" ring grooves with a thin coat of grease Specification 3-GP-682 (MIL-G-7711A).

- (b) Dip adjusting pin grips (7) in hydraulic brake fluid, Specification 3-GP-26a (MIL-0-5606) before installation in brake.

RE-ASSEMBLY

- 9 Re-assemble in reverse of disassembly.

- (a) Paint witness marks across the edge of the cylinder heads and adjacent brake unit castings.

TEST PROCEDURE

- 10 The procedures for testing are as follows:-

- (a) Apply and release pressure ten times.
- (b) Apply specified pressure and hold for two minutes then check for leaks.
- (c) Brake disc should be free when pressure is released.
- (d) Allow brake to stand for two minutes with pressure released and check for static leaks.

PART 2
PART LIST

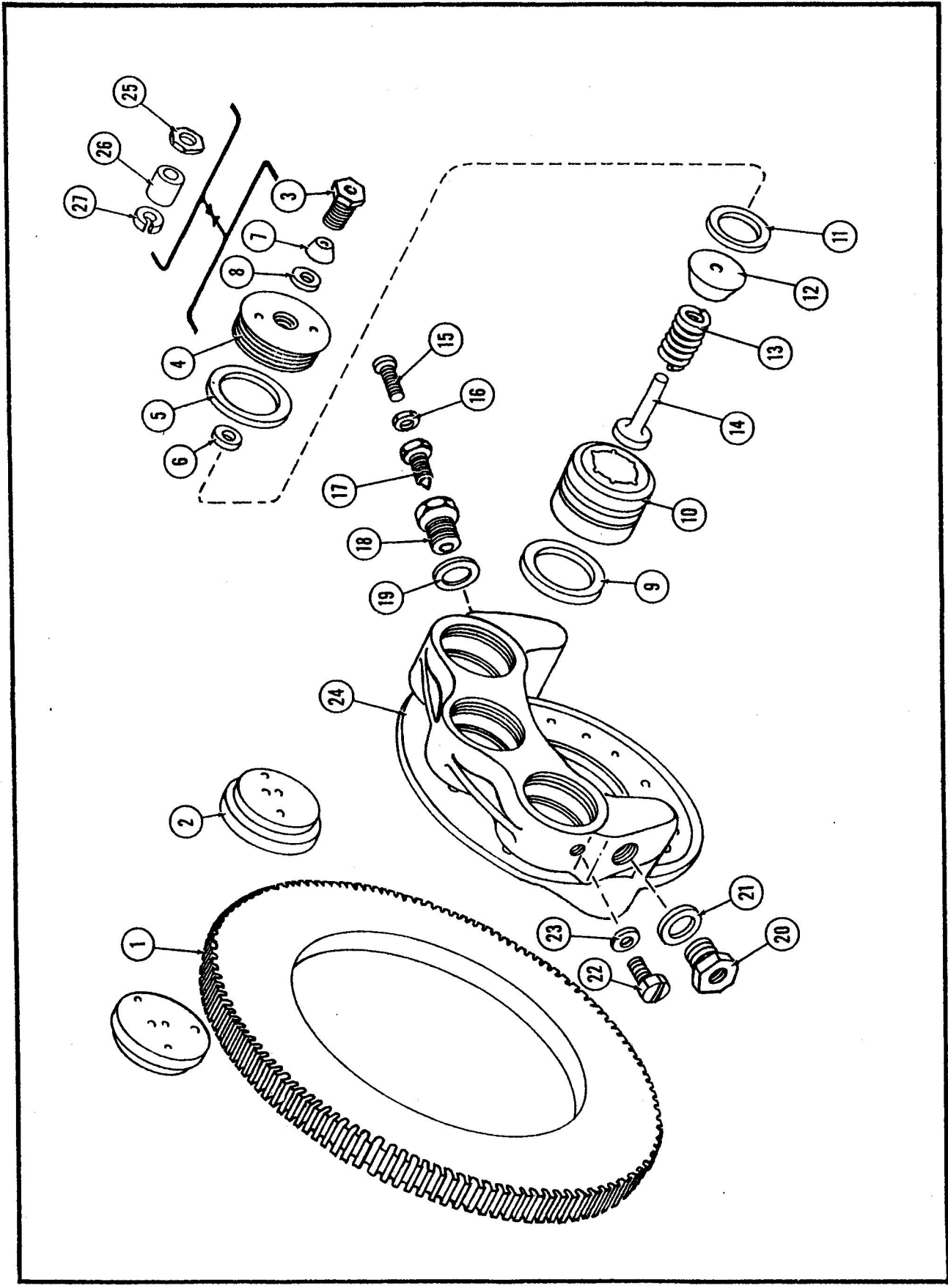


Figure 2-1 Brake Assembly 530886SG for 11.00-12 Wheel

FIGURE and INDEX NUMBER	GROUP							Units Per Assy	Usage on Code	
	MAJOR ASSEMBLY BRAKE ASSEMBLY 530886SG FOR 11.00-12 WHEEL									
	PART NUMBER	1	2	3	4	5	6			7
2-1	530886SG	Brake Assembly - For 11.00-12 wheel (1630-534-6555)							1	
-1	9530993	Disc - Brake (1630-534-6590)							1	
-2	9521604	Lining - Brake (1630-534-6578)							6	
-3	9510894	Nut - Adjusting pin (4730-449-0906)							3	
-4	9521603	Head - Cylinder (1630-394-1587)							3	
-5	AN6230-6	Gasket - "O" ring (5330-194-3713)							3	
-6	AN6227-5	Packing - "O" ring (5330-260-9311)							3	
-7	9510895	Grip - Adjusting pin (1630-182-6129)							3	
-8	511820-7	Washer (5310-094-3004)							3	
-9	AN6227-30	Packing - "O" ring (5330-599-0927)							3	
-10	511921M	Piston (1630-394-1581)							3	
	*9522145	Piston + .050 oversize for repair only (1630-00-031-4394)							AR	
-11	NAS50-137P	Ring - Internal retainer (5340-205-6561)							3	
-12	511812A	Guide - Spring (1630-166-6594)							3	
-13	511811	Spring - Brake release (1630-515-0858)							3	
-14	511810	Pin - Adjusting (1630-218-8759)							3	
-15	AN520-10-5	Screw (5305-151-2764)							1	
-16	511846-4	Washer (5310-298-7478)							1	
-17	AN6204-1	Valve - Bleeder (1630-483-8410)							1	
-18	9511157	Adapter - Bleeder valve (1630-483-7959)							1	
-19	AN6290-8	Gasket (5330-285-9841)							1	
-20	512054	Bushing - Inlet (4730-483-7834)							1	
-21	AN6290-8	Gasket (5330-285-9841)							1	
-22	AN501A10-4	Screw (5305-156-2719)							2	
-23	511846-4	Washer (5310-298-7478)							2	
-24	9540666	Housing - Brake							1	
-25	**USAF S356-1018	Nut - Lock (5310-489-5665)							3	
-26	**9522159	Bushing - Threaded (1630-307-4512)							3	
-27	**9522164	Grip - Split collar (1630-031-4395)							3	
-28	***1604-73	Plug dental (5340-597-9456) (79555)							1	
-29	***AN6290-4	Gasket (5330-171-6327)							1	
		* Order separately. Not supplied as part of Equipment PB.								
		** Alternate parts for non-torquing adjustment.								
		*** Not illustrated.								

