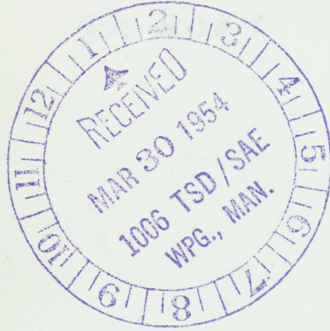


85-84

EO 40-80MA-2

ROYAL CANADIAN AIR FORCE



HANDBOOK WITH PART LIST
LANDING GEAR RETRACTING
MECHANISM

GEAR BOX 84-188900
(Beech)

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

OK 1 June 1953

LIST OF RCAF REVISIONS

DATE

PAGE NO

DATE

PAGE NO

REPAIR AND OVERHAUL INSTRUCTIONS

WITH PART LIST

LANDING GEAR RETRACTING

MECHANISM GEAR BOX

84-188900

LEADING PARTICULARS

1 The following particulars are pertinent to the Landing Gear Retracting Mechanism Gear Box - 84-188900:-

Backlash (Measured at pitch diameter on new gears) (See figure 1)	Max. .004 Min. .002
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Allowable wear (Before replacement) (See figure 1)	Max. .022
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SPECIAL TOOLS

2 No special tools are required for disassembly.

DISASSEMBLY (See figure 2)

3 Disassembly in the order indexed on the exploded view illustration, except as noted.

(a) Remove pipe plug (1) to drain grease from gear box.

CLEANING

4 Wash all component parts with an approved solvent and dry with compressed air.

INSPECTION

5 Examine all parts for obvious cracks.

(a) Check worm gear (7) and drive gear (13) for evidence of wear on gear teeth. Refer to Table of Leading Particulars for maximum allowable wear.

(b) Test roller bearings (5) and (12) for smooth operation and rolling qualities.

(c) Examine bearing seats for damage.

(d) Check worm gear (7) and drive gear (13) for alignment and even wear on gear teeth.

(e) Inspect keys and key seats for wear and proper fit.

(f) Check all threaded parts for condition and cleanliness.

REPAIR AND REPLACEMENT

6 All steel parts should be magnafluxed during overhaul. Radiographic inspection should be used on the gear housing. Replace parts if flaws are revealed.

(a) Bearings showing excessive wear or looseness should be replaced.

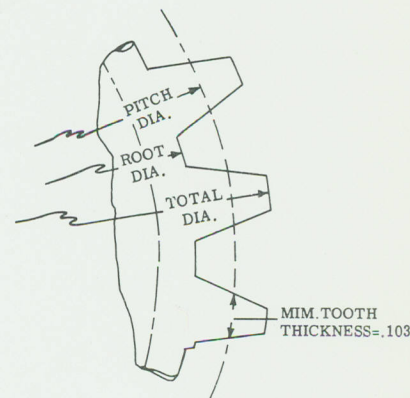


Figure 1. Gear Measurements

(b) If either gear (7) or (13) is defective, replace both gears with new matched gears. Refer to Table of Leading Particulars for backlash measurements.

(c) Replace keys (14) and (8) if they show any damage.

LUBRICATION

7 Lubricate to the level of the filler plug hole with lubricant gear, universal, Specification 3-GP-390 for Summer and 3-GP-360 for Winter.

REASSEMBLY

8 Reassembly is the reverse of the disassembly procedure except as noted.

(a) Seal all joints with Specification 6PE Parker Sealube.

(b) Secure nut (6) by popping to shaft of motor assembly (4) after it has been properly reassembled.

(c) Wire safety the AN895-B70 pipe plug in accordance with EO 75-70-10.

TEST PROCEDURE

9 Check landing gear retracting mechanism gear box for smooth operation by energizing landing gear motor. Both forward and reverse motion should be checked in this test.

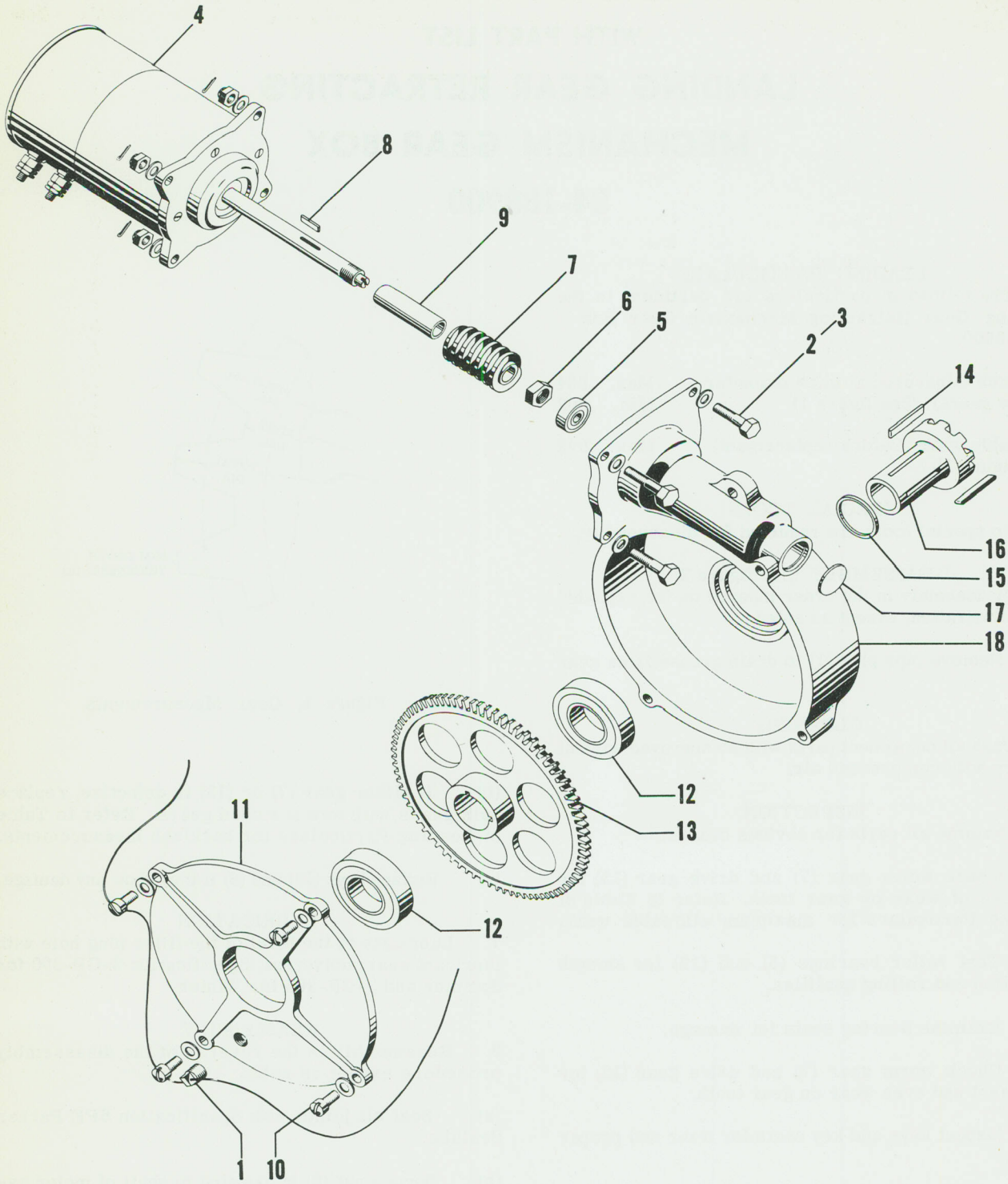


Figure 2. Landing Gear Retracting Mechanism Gear Box - 84-188900.

FIGURE and INDEX NUMBER	GROUP - LANDING GEAR RETRACTING MECHANISM							NOMENCLATURE	Units PER Ass'y	Usage on Code	
	MAJOR ASSEMBLY - GEARBOX - 84-188900										
	PART NUMBER	1	2	3	4	5	6	7			
2-	84-188900								Gearbox - Landing gear retracting mechanism	1	
- 1	AN895-B70								. Plug - Pipe	1	
- 2	AN5-10								. Bolt	3	
- 3	AN5-11								. Bolt	1	
- 4	824-188895								. Motor Assembly	1	
- 5	AN201KP6A								. Bearing	1	
- 6	AN316-8R								. Nut	1	
- 7	824-188904								. Gear - Worm	1	
- 8	188909								. Key	1	
- 9	824-188896								. Spacer	1	
-10	AN500-A10-10								. Screw	4	
-11	188902								. Plate - Gear housing cover	1	
-12	AN201KP20A								. Bearing	2	
-13	824-188903								. Gear - Drive	1	
-14	188908								. Key	2	
-15	188905A-3								. Ring - Clutch spacer	1	
-16	188905A-1								. Shaft - Drive gear clutch	1	
-17	84-188900-1								. Plug - Welch	1	
-18	188901								. Housing - Gearbox	1	

