

REPAIR AND OVERHAUL INSTRUCTIONS
WITH PART LIST
FLAP MECHANISM MOTOR ASSEMBLY
NO. 404-187835 (BEECH)

LEADING PARTICULARS

1 The following particulars are pertinent to the Flap Mechanism Motor Assembly 404-187835:-

Backlash (Measured at pitch diameter on new gears) (See figure 1)	Max. .004 Min. .002
Allowable Wear Before Replacement (tooth thickness, Figure 1)	Min. .065

SPECIAL TOOLS

2 No special tools are required.

DISASSEMBLY (See figure 2)

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

(a) Remove the two plugs (1) from plate (8) to drain remaining grease from motor assembly.

CLEANING

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

INSPECTION (See figure 2)

5 Examine worm gear (6) and drive gear (12) for evidence of wear on gear teeth. Refer to Leading Particulars for tolerance checks.

(a) Test roller bearings (4) and (9) for smooth operation.

(b) Check bearing seats for obvious damage.

(c) Inspect drive gear shaft and motor assembly for alignment.

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

(e) Examine all parts for cracks.

REPAIR AND REPLACEMENT

6 All parts which do not pass inspection checks outlined in paragraph 5 should be replaced.

(a) If either the worm gear or the drive gear is defective, replace both parts.

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

(c) All steel parts should be magnafluxed during overhaul. Replace parts if flaws are revealed.

(d) All brass shim washers should be replaced during every overhaul.

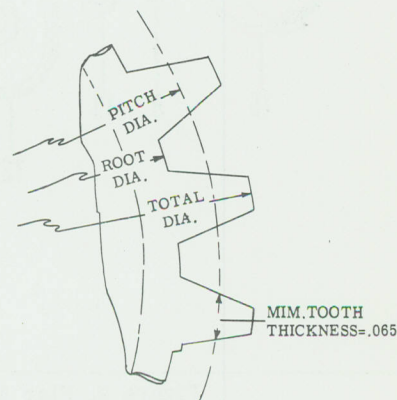


Figure 1. Gear Measurements

LUBRICATION

7 Lubricate with approximately 4 ounces of grease Specification 3-GP-683.

REASSEMBLY (See figure 2)

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

(a) Coat gears, bearings, and shim washers with grease Specification 3-GP-683 prior to reassembly.

(b) Secure nut (5) by popping to shaft of motor assembly (3) after it has been properly reassembled.

(c) Not more than two shim washers are to be used per side for centering drive gear with worm gear. The 105090-B-003-8-028 shim washer is not to be used alone for centering drive gear with worm gear.

(d) The jointing surfaces between housing (15), plate (8), and motor assembly (3) are sealed with anti-seize compound, Specification MIL-L-6032 RCAF Ref. 34A/167.

(e) Safety lower plug to adjacent housing plate screw with AMS 5687 safety wire. Safety upper plug with AMS 5687 safety wire. Use safety wire for screws fastening motor assembly to housing.

TEST PROCEDURE

9 Check operation of assembled flap mechanism motor assembly for smoothness by energizing flap motor. Both forward and reverse motion of flap mechanism should be checked in this test.

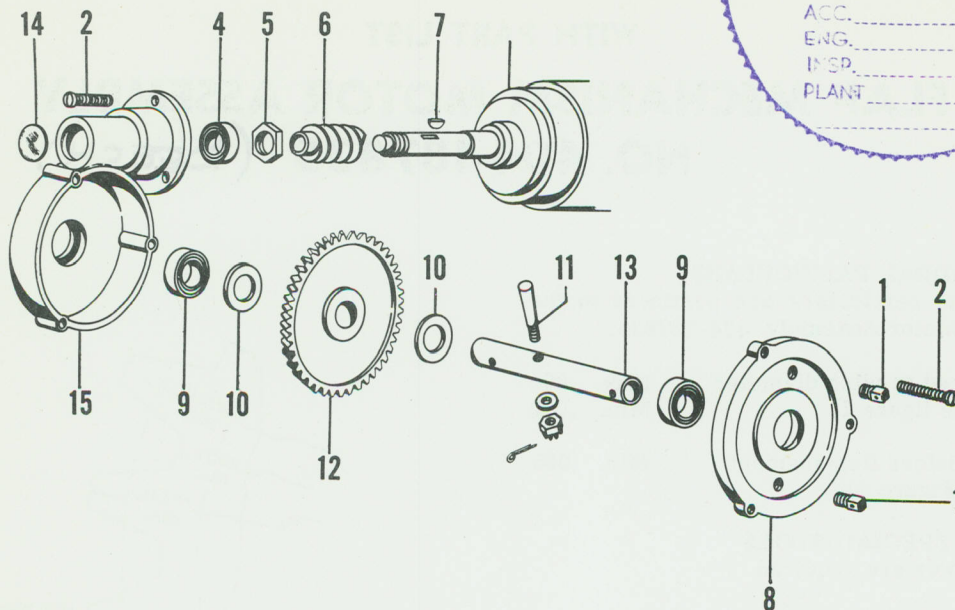
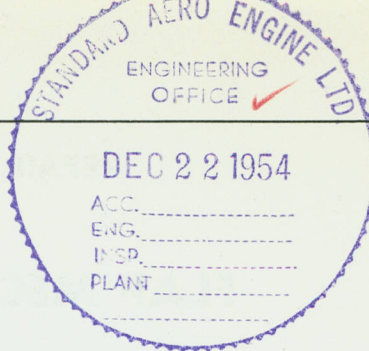


Figure 2. Flap Mechanism Motor Assembly - 404-187835

FIGURE and INDEX NUMBER	GROUP - FLAP MECHANISM							Units PER Ass'y	Usage on Code	
	MAJOR ASSEMBLY - MOTOR ASSEMBLY									
	PART NUMBER	1	2	3	4	5	6			7
2-	404-187835	Motor Assembly - Flap mechanism							1	
- 1	AN895-B70	. Plug							2	
- 2	AN500A-10-8	. Screw							6	
- 3	804-182626	. Motor Assembly							1	
- 4	AN201-K4A	. Bearing - Motor shaft							1	
- 5	AN316-5R	. Nut							1	
- 6	187796-1	. Worm - Motor shaft							1	
- 7	AN280-H-304	. Key - Woodruff							1	
- 8	187793	. Plate - Housing cover							1	
- 9	AN201-K8A	. Bearing - Shaft							2	
-10	105909-B-003-8-028	. Washer - Shim (.003 thickness)							AR	
	105909-B-004-8-028	. Washer - Shim (.004 thickness)							AR	
	105090-B-005-8-028	. Washer - Shim (.005 thickness)							AR	
	105090-B-010-8-028	. Washer - Shim (.010 thickness)							AR	
	105090-B-020-8-028	. Washer - Shim (.020 thickness)							AR	
-11	187808	. Pin - Taper							1	
-12	187796-2	. Gear - Flap mechanism drive							1	
-13	404-187825	. Shaft - Flap drive gear							1	
-14	103191A-040-024	. Plug - Gear housing							1	
-15	404045	. Housing - Flap motor drive							1	

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