

SERVICE INSTRUCTION M20-83

FEBRUARY 20, 1988

- SUBJECT:** MOONEY ALTERNATE AIR DOOR MAGNETIC LATCH MODIFICATION
- MODELS/S/N EFFECTIVITY:** MOONEY MODEL M20K, S/N 25-0781 THRU 25-1151, 25-1153 THRU 25-1157, 25-1159 THRU 25-1161 AND ANY M20K AIRCRAFT, S/N 25-0001 THRU 25-0780, WHICH HAVE RETROFIT KIT 940029 (S.I. M20-71) INSTALLED.
- TIME OF COMPLIANCE:** PART I - WITHIN THE NEXT 10 HOURS OF OPERATION
PART II - EVERY 100 HOURS COMPONENT IS IN SERVICE
PART III - EVERY 500 HOURS COMPONENT IS IN SERVICE
- INTRODUCTION:** The safety wire holding components of the magnetic latch assembly together have been found broken and pieces of the magnetic latch assembly have been injected into the turbo-charger causing impeller blades to be damaged. This may reduce the available power of the engine at high power settings or at high altitude.
- INSTRUCTIONS:** Remove top and bottom cowling per Service and Maintenance Manual, Section 71.
- PART I**
1. Remove magnetic latch assembly from alternate air housing assembly by removing 1 screw from each side of the magnetic latch mounting flanges (2 screws).
 2. Ensure that the manual alternate air door control is in the closed position and door is closed against housing.
 3. Install modified magnetic latch assembly to Alternate Air Assembly using original screws (2 ea.). Do not tighten screws until the magnetic latch assembly is in full contact with the Alternate Air Door in the closed position.
 4. When assured that Alternate Air Door is FULLY closed and magnetic latch is in full contact with the door, tighten the two mounting screws to secure magnetic latch to Alternate Air Assembly.
 5. Pull manual Alternate Air Control from inside the cockpit while a qualified observer watches the opening and closing movement of the Alternate Air Door. When it has been determined that the door fit and movement is proper and the door closes completely then proceed with the installation of top and bottom cowling per S & M Manual, Section 71.
 6. Enter compliance note in both the Airframe and Engine Logbook and return the aircraft to service.
- PART II**
1. Every 100 hours, after installation of new latch assembly, inspect magnetic latch aluminum housing bend radii (top and bottom bend radii, both inside and outside of housing) for evidence of wear or deterioration. Replace, if any damage is found, per steps 1 through 6 of PART I above.
- PART III**
1. Replace with a new latch assembly, P/N 600168-501, each 500 hours of latch service time. Refer to steps 1 through 6 of PART I above.
- REFERENCE DATA:** N/A
- WARRANTY:** MOONEY AIRCRAFT CORPORATION WILL PROVIDE THE PARTS AND ALLOW UP TO 0.5 HOURS LABOR TO ACCOMPLISH PART I OF THIS S.I.

PARTS LIST:

KIT P/N - SI M20-83-1

PART NUMBER	DESCRIPTION	QTY
1. 600168-501	MAGNETIC LATCH ASSY	1
CONSISTING OF THE FOLLOWING COMPONENTS		
1. V713	MAGNECATCH (MODIFIED)	1
1. MS51958-65	SCREW (CRES)	1
2. AN969-10E	WASHER	1
3. AN960-10	WASHER	1
4. AN363-1032	NUT	1
5. 600168-001	BUSHING (CRES)	1

DO NOT SUBSTITUTE ON ANY STAINLESS STEEL COMPONENTS —

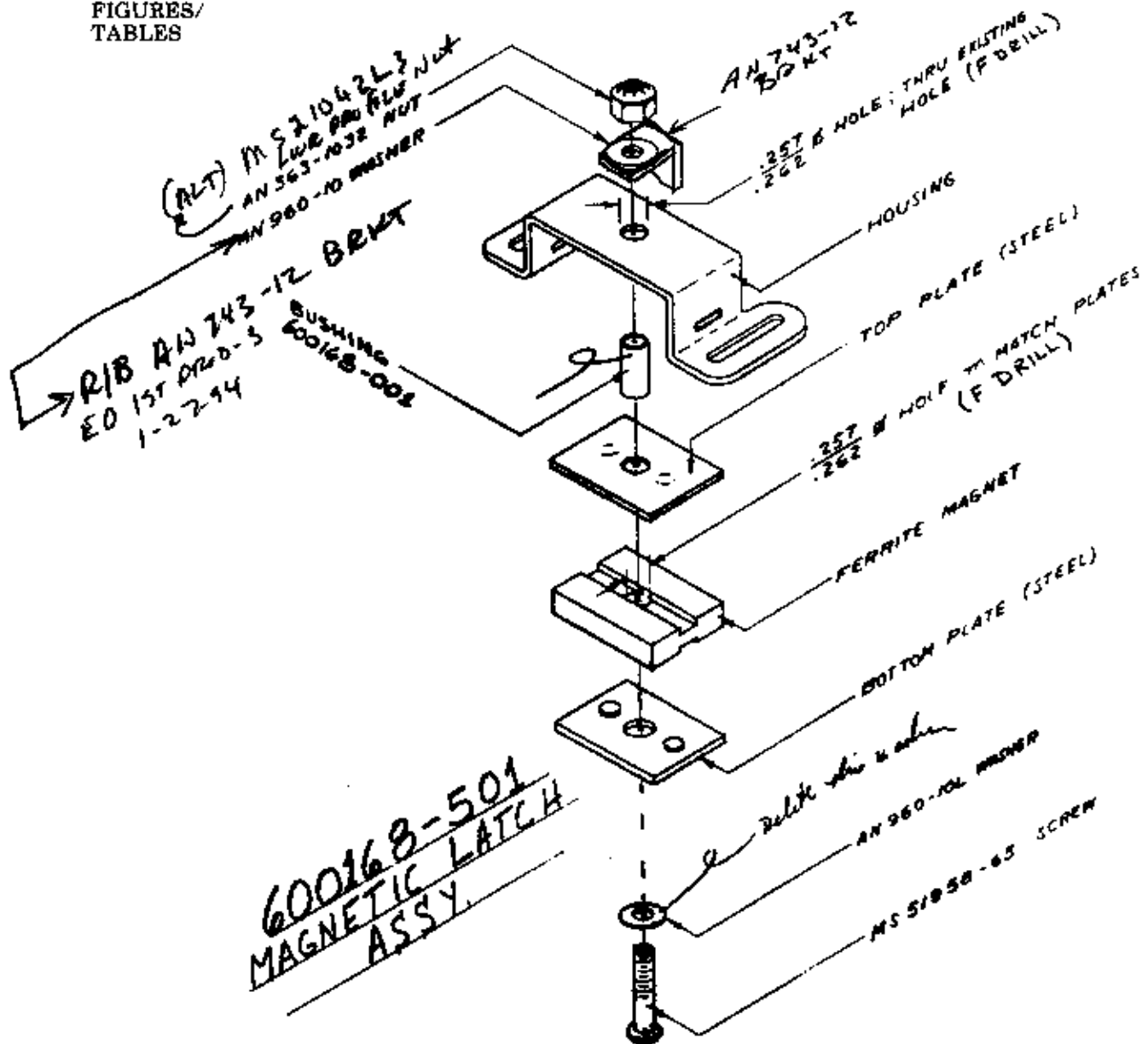
FIGURES/
TABLES

FIGURE M20-83-1