

MANDATORY SERVICE BULLETIN**CATEGORY 1****The Subject Matter Of This Service Bulletin Is Incorporated
In Whole Or In Part In An FAA Airworthiness Directive****MSB644****SUPERSERDES SERVICE BULLETIN 637
FAA APPROVED****SUBJECT:****REPLACEMENT OF MAGNETO COILS AND ROTATING MAGNETS****REASON FOR
BULLETIN:**

To reduce the compliance time originally specified in Bendix Corporation Service Bulletin 560A, therefore, retiring from service certain older coils and rotating magnets. This bulletin also requires the replacement of various coils that were previously acceptable under the instructions listed in its original 1972 issuance.

**EQUIPMENT
AFFECTED:**


- I. All S-20, S-200, S-600 series magnetos with:
 - A. Bendix (not TCM) red or black data plates having serial number:
 1. With letter prefix A and numerical serial number 16057 or lower (example: A16057); or
 2. Without letter prefix, below 2000000. (example: 925638)
 - B. Bendix (not TCM) blue data plate (Marked "REMANUFACTURED") and serial number lower than 901001.
- II. All S-1200 series magnetos with:
 - A. Bendix (not TCM) red data plates having serial number:
 1. With letter prefix A and numerical serial number 132843 or lower (example: A132843); or
 2. Without letter prefix, below 2000000. (example: 925638).
 - B. Bendix (not TCM) blue data plate (Marked "REMANUFACTURED") and serial number lower than 901001.

NOTE . . . Data plate colors (Black, Red, and Blue) refer to original factory-supplied data plates. To determine applicability if the original data plate color is uncertain, (i.e. if the color has been removed, or if a Bendix or TCM service spare yellow data plate has been installed, or if the data plate is marked with the name of a field overhaul shop), the most stringent of the serial number ranges listed above must be applied.

NOTE . . . The newest magneto affected by this Service Bulletin was built December 31, 1978. Magnetos built by Bendix in Jacksonville, FL, and magnetos built by TCM in Atlanta, GA (as indicated on the magneto data plate) ARE NOT AFFECTED.

COMPLIANCE:

For all affected equipment not marked as detailed under "identification" below, compliance with this bulletin is required at next 100 hour inspection, annual inspection, or progressive maintenance inspection, whichever comes first.

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NOTE . . . Previous compliance with Service Bulletin 560 or 560A does not guarantee compliance with this service bulletin. Some of the coils which were permissible under Service Bulletin 560 or 560A are to be replaced under this Service Bulletin. Compliance with Service Bulletin 637, however, is the same as compliance with this Service Bulletin.

DETAILED INSTRUCTIONS:

To prevent failure of the affected magnetos due to malfunction or failure of the coil or rotating magnet, accomplish the following:


- A. COILS: (S-20, S-200, S-1200 Series Magnetos only) Disassemble magneto as specified in the current applicable service manual to allow access to the coil. All Bendix coils which cannot be identified as detailed under the heading "Replacement Coils" in Table 1 must be replaced.
- B. ROTATING MAGNETS: (S-20, S-200, S-600 Series Magnetos only) Disassemble magneto as specified in the current applicable service manual to allow full visual inspection of the largest diameter of the rotating magnet surface. Rotating magnets which display the characteristics shown in Figure 1 (i.e. flat magnet sides or brass lamination inserts) must be replaced.

While current rotating magnets differ in shaft length, thread pitch, and keyway location, they all incorporate round rotating magnet casting and laminations of a dull iron color. Refer to the current applicable service manual parts list to determine part number of replacement rotating magnet.

TABLE 1 – COIL REPLACEMENT DATA

MAGNETO SERIES	COILS TO BE REPLACED			REPLACEMENT COILS *		
	PART NUMBER	SECONDARY RESISTANCE VALUES	COLOR	PART NUMBER	SECONDARY RESISTANCE VALUES	COLOR
S-20#	10-51303 10-76384	7K Ω to 9K Ω	Opaque Amber to Dark Purple	Marked: ⊗ 10-357164(A) or 10-357165(A)-20 Order: 10-357165-20S	12K Ω to 16K Ω	Bright Red to Dark Red
	10-160886	12K Ω to 16K Ω				
S-20,# S-200	10-163172 10-163209	7K Ω to 9K Ω	Opaque Amber to Dark Purple	Marked: ⊗ 10-357164(A) Order: 10-357165-1	12K Ω to 16K Ω	Bright Red to Dark Red
	10-160887	12K Ω to 16K Ω				
S-1200	10-349271	17K Ω to 23 Ω	Opaque Amber	Marked: 10-391088 Order: 10-391088-1	20K Ω to 26K Ω	Blue to Olive Green to Black

- NOTES: # Refer to current applicable magneto service manual parts list for specific application of coil part number to magneto part number.
- Positive identification of current coils is best made by reading the part number directly off the coil. Secondary resistance values and color are give to aid identification.
- ⊗ Letter "A" sometimes follows number marked on part.

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IDENTIFICATION:

Upon compliance with Detailed Instructions, identify each magneto as follows:

- A. S-20, S-200, and S-600 series magnetos - Metal stamp .010 deep maximum the letter "C" 3/16 inches high, midway and centered between the timing plug boss and the curved surface at the rear of distributor housing.
- B. S-1200 series magnetos - Metal stamp .010 deep maximum the letter "C" 3/16 inches high, centered between the timing plug boss and data plate, adjacent to the magneto housing rib.
- C. Make an engine logbook entry indicating magneto part number, serial number, date of compliance and method of compliance.

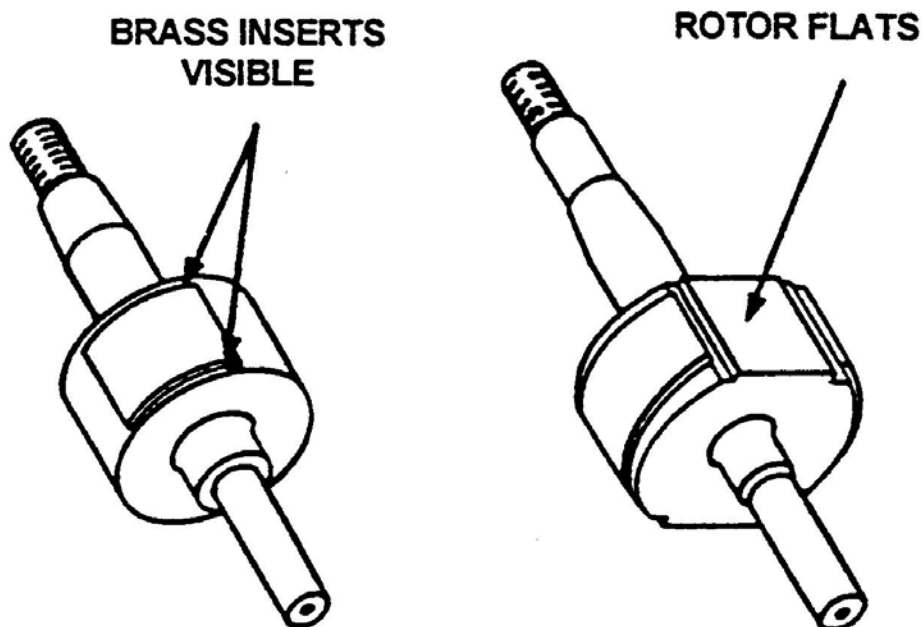



Figure 1. Rotating Magnet Types to be replaced

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