

VSP-31
August 7, 1981

VENDOR SERVICE PUBLICATION

To: All Piper Distrubution Service Administrators

Subject: Bendix Service Bulletin No. 618
(Replacement or inspection of distributor gears
in D-3200 series pressurized (blue) magnetos.

Models Affected: PA-31-350 Chieftain

Serial Numbers Affected: Refer to attached Bendix Service Bulletin for
identification of specific aircraft, engines and
magneto serial numbers affected.

Purpose:
To distribute the attached Bendix Service Bulletin No. 618 to Piper Field Service
Facilities.

Special Instructions:
Please insure that all Piper Field Service Facilities in your area are aware of the
provisions of the attached Bendix Service Bulletin.

Compensation, if applicable, is through Bendix and is addressed on the attached
Bendix Bulletin.

AIRCRAFT**SUBJECT:**

Replacement or inspection of distributor gears in D-3200 Series pressurized (blue) magnetos.

REASON FOR BULLETIN:

1. To alert users of a possible loose distributor gear electrode on the subject gears. This condition could lead to rough engine operation or cylinder or engine damage.
2. To require replacement of subject gears and provide users with inspection and replacement procedures.

EQUIPMENT AFFECTED:

All D-3200 Series pressurized (blue) magnetos with Serial Numbers 100 through 1422, installed on Avco Lycoming T10, LT10-540-J2BD engines used on the following aircraft:
Piper PA 31-350; STC SA1151-SO and STC SA970-SO Colemill Conversion of Piper PA 31, PA 31-325 and PA 31-350; STC SA980-NW Machen Industries Conversion of Piper Aerostar 600; STC SA 762-NW Machen Industries Conversion of Beechcraft Bonanza B35 and A36 Series.

Maintenance (Spare) Parts Affected:

None

Compliance:

1. All subject magnetos with over 100 operating hours must have the distributor gears replaced or inspected prior to further flight, unless the magneto is identified by the letter "x" in the upper left corner of the identification plate (see figure 1). The "x" on the identification plate indicates previous compliance with this Service Bulletin.

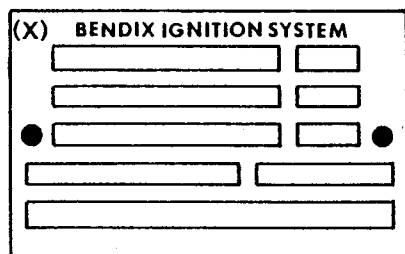


Figure 1. Location of "x" on Identification Plate

2. If gears pass inspection, and are not replaced, they must be reinspected every 50 hours of operation thereafter until they are replaced by serviceable gears. Serviceable gears are identified by the presence of the letter "z" or the letters "x" and "o" together, laser etched on the retaining ring end of the gear axle. The letter "x" may or may not be circled by the letter "o".

General Information:

The distributor gear electrode has come loose in service on some D-3200 Series Magnetos. If this condition exists, the distributor gear electrode may contact the distributor block stationary electrodes causing contamination in the distributor in the form of dusty brass particles. This contamination may cause arcing within the distributor resulting in misfiring. This could in turn cause rough engine operation or cylinder or engine damage.

Detailed Instructions:

(Refer to D-2000 Installation Instructions, Bendix Publication L-928 and D-2000 Overhaul Instructions, Bendix Publication L-945. These are comparable to D-3000/3200 Series Magnetos and will suffice for these procedures until D-3000/3200 manuals are available.)

1. Following published procedures, remove the cover from the magneto and remove the magneto from the engine.
2. Remove the distributor block from the magneto and remove the gears from the block.
3. Inspect the block for serviceability and replace any block found to be unserviceable.
4. Return the distributor gears to any Authorized Bendix Engine Products Division Distributor to exchange for new gears under warranty.



5. Reassemble the distributor block with new serviceable gears and reassemble the magneto.
6. After installing new serviceable gears, identify the magneto by stamping the letter "x" in the upper left corner of the identification plate, before the word "Bendix" (see figure 1).
7. If for some reason the gears are not replaced immediately, they must be inspected to ensure serviceability.
8. Inspect each gear for damage such as nicked or broken gear teeth, etc. and discard any unserviceable gear.
9. Inspect each gear for a loose electrode by grasping the gear firmly in one hand and alternately exerting clockwise and counterclockwise force against the electrode with maximum hand pressure. This should be done in a manner that would attempt to pivot the electrode around the axle (see figure 2). If any movement between the electrode and gear is detected, the gear must be discarded and replaced with a serviceable gear.
10. If gears are found to be serviceable, reassemble the block and reassemble the magneto.
11. Make an appropriate engine log book entry as follows:
 - a. If gears have been inspected, but not replaced, reference the operating time on the magneto when inspection was performed to ensure gears are reinspected or replaced within 50 operating hours.
 - b. If gears have been replaced, indicate that this Service Bulletin has been complied with.

Warranty Consideration:

All D-3200 Series Magnetos will be covered by warranty, allowing 2.5 hours for replacement of distributor gears. Compensation for work involved in complying with this Service Bulletin will be made in accordance with established warranty policy upon submission of a Warranty Claim submitted no later than September 1, 1981 through a currently Authorized Bendix Engine Products Division Distributor.

Special Tools Required:

Refer to applicable manuals

Man Hours Required:

2.5 hours per engine

Weight Change:

None

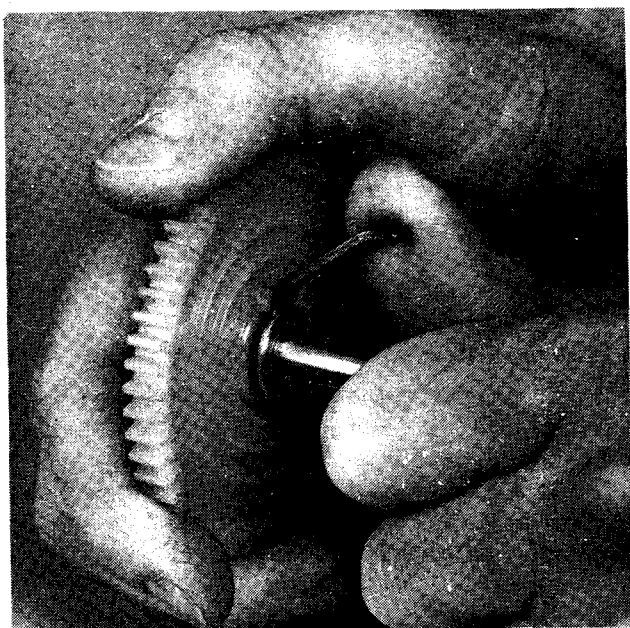


Figure 2. Checking For Loose Electrode