

SERVICE BULLETIN**SB669**

Compliance Will Enhance Safety

**TECHNICAL PORTIONS
FAA APPROVED**

- SUBJECT:** Continental Motors S-20, S-200, and S-1200 Series
Magneto Distributor Gear Block Inspection
- PURPOSE:** Inspect magneto distributor block to determine condition of magneto's distributor gear bushing.
- COMPLIANCE:** During the next 100-hour, progressive, or annual inspection, whichever occurs first and every 100-hour, progressive or annual inspection thereafter not to exceed the applicable time in service requirement.

MODELS

- AFFECTED:** All aviation gasoline engines utilizing Continental Motors, Inc. (formerly TCM/Bendix) S-20, S-200, and S-1200 Series Magnetos

I. General Information

Magnetos manufactured by Continental Motors, Inc. (CMI) contain a bronze oilite distributor gear bushing in the distributor block that supports the distributor gear shaft. The distributor gear bushing is bonded to the distributor block during its manufacture.

CMI is aware of instances in which the distributor gear bushing has become loosened in the distributor gear block. The loose bushing may result in an offset or disengaged distributor gear, damaged distributor gear teeth, and/or rough running engine operations. As a result, this service bulletin specifies an inspection procedure to determine if the distributor gear bushing has become unbonded from the distributor block.

NOTE: This service bulletin is not intended to replace the recommended periodic maintenance intervals and magneto maintenance procedures as outlined in the published CMI Magneto Service Support Manuals.

II. Inspection Procedure

These are recommended procedures to be followed when inspecting the distributor gear bushing:

WARNING

Before performing any preventive maintenance, maintenance or inspections ensure that the aircraft engine Master Switch is in the OFF position, the Ignition Switch is in the OFF position, and disconnect engine electrical power, and confirm continuity between the magneto capacitor ("P" lead terminal) and aircraft ground. Stand clear of the propeller arc prior to proceeding and DO NOT stand or place equipment within the arc of the propeller.

1. Remove the engine cowling in accordance with the aircraft manufacturer's instructions.
2. Remove any obstacles as necessary to gain access to the magnetos.

ISSUED	REVISED	 P.O. Box 90 Mobile, AL 251-436-8299	PAGE NO	DOC NO	REVISION
2015-02-03				1 of 4	SB669

3. Once the magnetos are accessible, remove the ignition harness plate screws and plate from the magneto distributor housing to expose the end of the distributor gear shaft, the felt washer, flat washer, and shaft retaining ring (see Figure 1).

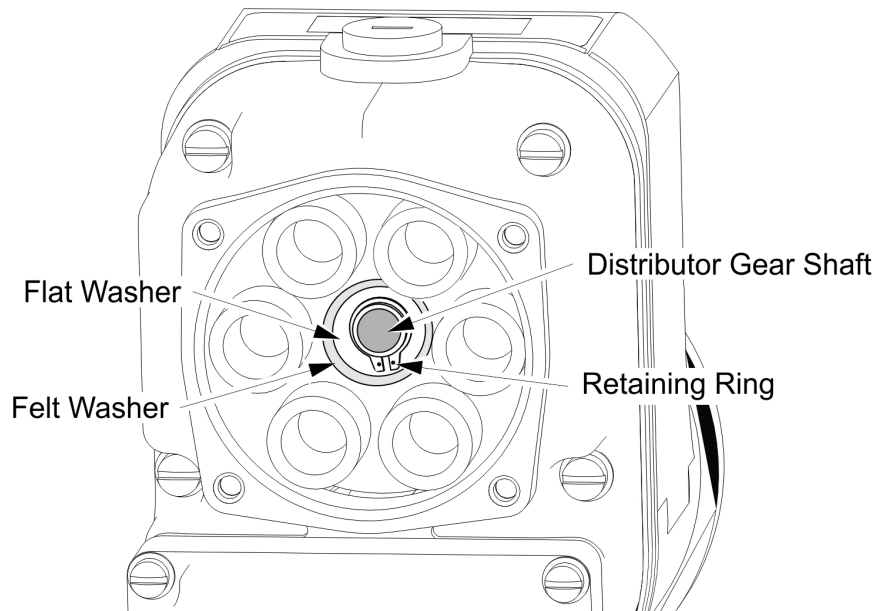


Figure 1. Distributor Block

4. Pinch the distributor gear shaft between the nails of your index finger and thumb and move the shaft radially (side-to-side) to determine if there is any side-play between the distributor gear bushing and the distributor block. If the distributor gear bushing is loose, there should be a consolidated movement noted in the distributor gear shaft, retaining ring, flat washer, and felt washer that is both visible and tactile.
 - a. If a loose distributor gear bushing is suspected, remove the magneto and have it replaced (see Warranty Information below).
 - b. If the bushing is secure, apply MS-122AD dry Teflon spray to the harness grommets and seat the harness outlet plate squarely on the magneto.
 - c. Tighten the harness outlet plate screws evenly to secure the harness outlet plate to the magneto. Torque the harness outlet plate screws evenly to 12-15 in-lbs.
5. Reinstall the engine cowling using the airframe manufacturer's maintenance instructions.
6. Perform ground run-up to normal operating temperature according to the Airplane Flight Manual/ Pilot's Operating Handbook (AFM/POH) published by the aircraft manufacturer.
 - a. Perform a Magneto RPM Drop Check according to instructions in the applicable Airplane Flight Manual (AFM)/Pilot's Operating Handbook (POH) to verify proper ignition system operation. RPM drop is expected when one magneto channel in a dual ignition system is turned off.
7. Make the appropriate logbook entry for compliance with this Service Bulletin.

ISSUED	REVISED	 P.O. Box 90 Mobile, AL 251-436-8299	PAGE NO	DOC NO	REVISION
2015-02-03			2 of 4	SB669	

III. Warranty

The actions required to comply with this bulletin are covered by the applicable engine warranty policy in effect at the time the engine was purchased. Continental Motors, Inc. reserves the right to request copies of invoices and maintenance records to verify warranty applicability.

NOTE: Visit the Continental Motors, Inc. web site at www.continentalmotors.aero or call 1 (800) 326-0089 to obtain copies of CMI Warranty Policies.

If engine is within the warranty period, complete the attached **Compliance Form SB669**, along with a copy of the work invoice, original purchase receipt for the part and a copy of the repair agency's W-9, immediately upon completion for reimbursement.

A. Allowances/Reimbursements

Inspection per Section II, "Inspection Procedure" labor allowance is **one hour** at the published shop rate.

B. Parts Return Instructions

Replacement parts required to comply with this bulletin must be ordered directly from:

Continental Motors Factory Service Center
C/O **SB669**
8600 Country Road 32
Fairhope, Alabama 36532
1 (251) 990-5080 or 1 (877) 777-1870

Submit the completed compliance package (in its entirety) no later than **one year from date of issuance of this service document** via postal service or fax to the following:

Continental Motors
C/O **SB669**
P.O. Box 90
Mobile, AL 36601
or via Fax to 1 (251) 436-8270

ISSUED	REVISED		PAGE NO	DOC NO	REVISION
2015-02-03		P.O. Box 90 Mobile, AL 251-436-8299	3 of 4	SB669	

**COMPLIANCE FORM
SB669**

Complete one form for each affected engine or aftermarket part

Owner Name:	Phone:	Date:
Address:		
City:	State/Province and Country:	Postal/Zip Code:
FBO Name:	Phone:	Fax:
Address:		
City:	State/Province and Country:	Postal/Zip Code:
FBO Posted Labor Rate:	Labor Hours Applied:	Total Cost
<input type="checkbox"/> Check here to send reimbursement payment to FBO address (leave shaded section blank) <input type="checkbox"/> Check here and complete this shaded section to send reimbursement payment to alternate address:		
Name:	Phone:	Fax:
Address:		
City:	State/Province and Country:	Postal/Zip Code:
Aircraft Registration Number:	Aircraft Make/Model:	Aircraft Serial Number:
Engine Model:	Engine Serial Number:	Installed Engine Position:
Engine Total Time (hours):	Date Engine Placed in Service: (YYYY/MM/DD)	

Continental Motor's Fax number is 1 (251) 436-8270.

Repair Agent (print name): _____

Repair Agent (signature): _____

ISSUED	REVISED		PAGE NO	DOC NO	REVISION
2015-02-03		P.O. Box 90 Mobile, AL 251-436-8299	4 of 4	SB669	