

TO: Aircraft Manufacturers, Aircraft Engine Manufacturers, Distributors, Dealers, Engine Maintainers, Engine Overhaul Facilities, Owners and Operators of Slick Aircraft Magnetos.

SUBJECT: Potential decreased service life of Slick 4-cylinder magneto distributor gear assemblies. Based on process and component improvements following the initial release of this service bulletin, the serial number range is being extended since the initial release.

MAGNETO MODELS AFFECTED:

The following 4-cylinder magnetos with serial numbers between 08090001 thru 16071072, K3822 distributor block replacement kits, and K3008 distributor gear assemblies dated September 26, 2008 thru September 1, 2016:

4301, 4302, 4303, 4307, 4309, 4310, 4316, 4324, 4330, 4331, 4333, 4342, 4344, 4345, 4346, 4347, 4348, 4353, 4354, 4370, 4371, 4372, 4373, 4374, 4377, 4381, 4392, 4755, 4761, 4766, 4770, 4771, 4776

NOTE: 08090001 = SN manufacture date of September 2008 and 16071072 = SN manufacture date of July 2016

If it is not possible to confirm the version of the distributor gear that is installed in a given magneto from maintenance records, the magneto may be removed from the engine in order to have the housing and distributor block removed to allow visual inspection of the distributor gear. Distributor gears with Copper electrodes must be replaced with distributor gears with Monel electrodes.



Figure 1. Replacement Kit Box Label Date Code



Figure 2. Magneto ID Label Date Code

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ENGINE MODELS

AFFECTED: Engines utilizing Slick 4200 series, 4300 series or 4700 series (LASAR) magnetos.

AIRFRAME MODELS

AFFECTED: Aircraft utilizing Slick 4200 series, 4300 series or 4700 series (LASAR) magnetos.

BACKGROUND INFORMATION:

The initial release of SB1-15 was based on a limited number of field reports and product returns, Champion Aerospace has identified a possible condition in the distributor gear assemblies of 4-cylinder magnetos that can lead to decreased service life. Some of the returned products contained distributor gears exhibiting loosening of the electrode finger. This condition was observed in magnetos with a varying number of service hours. Typical symptoms are unusual RPM drop during magneto check, difficulty starting, and/or rough running engines.

While the subject magneto distributor gear assemblies met all acceptance criteria at the time of production, the previous Service Bulletin was issued in order to eliminate any affected 4-cylinder magneto distributor gear assemblies (see below: MAINTENANCE PARTS AFFECTED). Champion Aerospace improved the new replacement K3008 distributor gear assembly to address this issue. Champion Aerospace has made further improvements to the K3008 distributor gear assembly with the final change being the change from a Copper to a Monel distributor gear electrode as of August 2016, making the ultimate product more robust.

COMPLIANCE: REMOVE the affected complete magneto and return to Champion for rework as soon as possible, not to exceed the next 50 hours. Document Service Bulletin compliance as written entry in applicable Aircraft and/or Engine logbook.



Figure 3. Affected K3008 Distributor Gear With Copper Electrode



Figure 4. K3008 Distributor Gear Marked 510406 (Backside)

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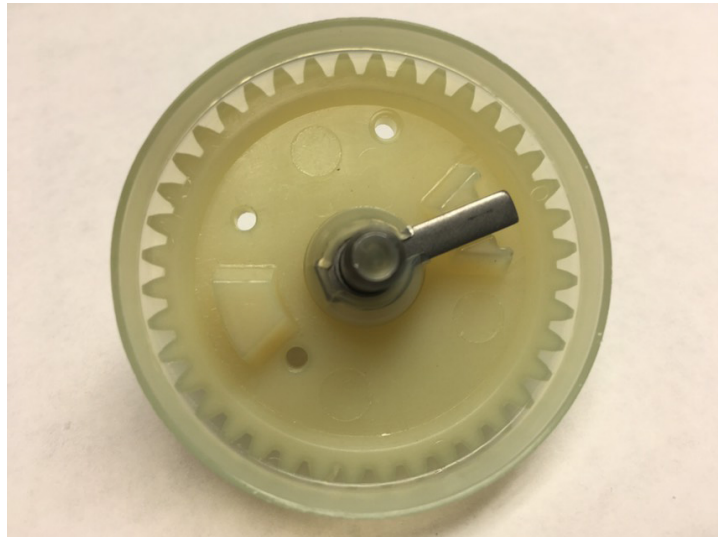


Figure 5. K3008 Distributor Gear With Monel Electrode

PROOF OF COMPLIANCE: Appropriate logbook entries. See SB 1-15B "COMPLIANCE" and "WARRANTY INFORMATION".

- MAINTENANCE PARTS AFFECTED:**
- Any 4200 series, 4300 series or 4700 series (LASAR) magnetos which have had the distributor block assembly replaced with a K3822 distributor block replacement kit dated Sept. 26, 2008 thru Sept. 1, 2016 installed as part of a repair
 - Individual K3822 distributor block replacement kits dated Sept. 26, 2008 thru Sept. 1, 2016
 - Individual K3008 distributor gear replacement kits dated Sept. 26, 2008 thru Sept. 1, 2016

PARTS REQUIRED PER BULLETIN: Replacement K3008 distributor gear assemblies. (The K3008 distributor gear assembly is a subassembly of the K3822 distributor block assembly.)

TOOLS REQUIRED: T150 e-gap tool, T-118 mag timing pin, mag timing light, and standard shop tools.

WEIGHT CHANGE: None

REQUIRED SERVICE LITERATURE: Refer to the latest revision of Champion Slick F-1100 Master Service Manual or L-1500 LASAR Master Service Manual, as applicable, when performing the detailed instructions contained in this Service Bulletin.

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RETURN/REPLACEMENT INFORMATION:

NOTE: Labor is not included per Champion warranty policy.

Affected magnetos must be retuned to Champion for rework and returned at no-charge. Return directions follow.

- Ship prepaid to:
Champion Aerospace LLC
5746 East Apache Street
Tulsa, OK 74115
ATTN: Slick SB1-15B Returns

Refer to the SB1-15B repair authorization form, located at the end of this service bulletin. Include name, shipping address, model number, serial number of the magneto(s) being returned and time-in-service information in the box with the magneto(s). The estimated turnaround time for returned parts is (5) business days after Champion receives the parts. The same magneto will be returned to the listed shipping address with new distributor gear installed.

NOTE: Do not leave engine components (i.e., drive gears, couplers, etc.) installed on the magneto(s). Champion cannot guarantee the return of these components.

DETAILED INSTRUCTIONS:

REMOVE the affected complete magneto and return to Champion Aerospace LLC for rework as soon as possible, not to exceed the next 50 hours.

NOTE: This repair does not affect normal inspection and maintenance intervals as defined in the latest revision of the F-1100 Master Service Manual or L-1500 LASAR Master Service Manual.

Champion Slick Technical Publication Website: www.championaerospacepubs.com
Champion Slick Piston Products Technical Support E-mail: slicksupport@champaero.com

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SB1-15B Repair Authorization Form

This form must be completed in full and returned with the affected magneto. Please contact Champion Support at slicksupport@champaero.com with any questions regarding eligibility or the return process.

Questions / Eligibility:

1. Has the required inspection been performed on this magneto? Yes No
2. Is the magneto within the affected range? Yes No
3. Have you removed any drive gears or other attached accessories? Yes No

Unit is not authorized to return for repair if you have answered “no” to any of the above questions.

Ship to Information: Champion Aerospace LLC., 5746 East Apache St, Tulsa, OK 74115

Contact Information:

Name: _____

Phone and/or Email: _____

Return Shipping Address: _____

Magneto Information:

Model Number: _____

Serial Number: _____

Time-in-Service: _____

Engine Model: _____

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