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# MANDATORY

# SERVICE BULLETIN

DATE: March 14, 2019 Service Bulletin No. 637  
Engineering Aspects are  
FAA Approved

SUBJECT: Reprint of Slick/Champion Aerospace Service Bulletin SB1-19  
 MODELS AFFECTED: All 4 and 6-cylinder Lycoming engines equipped with Slick 4300 or 6300 Series Impulse Coupled Magnetos.  
 TIME OF COMPLIANCE: Next maintenance event, or 400 hours total time in service of the magneto (whichever occurs first), then every 500 hours after the initial inspection.

**NOTICE:** Incomplete review of all the information in this document can cause errors. Read the entire Service Bulletin to make sure you have a complete understanding of the requirements.

This Service Bulletin is notification of required action for mandatory compliance with Slick/Champion Aerospace Service Bulletin No. SB1-19 dated 02/08/2019, regarding Lycoming engine models with Slick 4300 or 6300 Series Impulse Coupled Magnetos (Serial Numbers between 16010001 thru 18050664 identified in Slick/Champion Aerospace Service Bulletin SB1-19) approved for use on Lycoming engines. These magnetos were manufactured between January 2016 and May 2018.

**Slick/Champion Aerospace Service Bulletin No. SB1-19 dated 02/08/2019 is reprinted in its entirety as follows and is current at the time Lycoming Service Bulletin No. 637 is issued. However, compliance with this Service Bulletin is to be in accordance with the latest revision of the Slick/Champion Aerospace Service Bulletin No. SB1-19.**

**NOTICE:** Refer to the latest revision of Service Instruction No. 1443 for cross references of Slick model numbers and Lycoming part numbers.

**Required Action**

1. Identify all Slick 4300 or 6300 series Impulse coupled magnetos with serial numbers of 16010001 through 18050664 installed on Lycoming 4 and 6-cylinder engines.
2. Identify all Slick 4300 or 6300 series Impulse coupled magnetos with serial numbers of 16010001 through 18050664 in spares inventory.
3. Obey the instructions in the attached Slick/Champion Aerospace Service Bulletin No. SB1-19.

**Warranty Instructions for Engines / Magnetos Within the Factory Warranty Period**

Upon completion of instructions in the attached Slick/Champion Aerospace Service Bulletin No. SB1-19 dated 02/08/2019:

If the magneto passes the inspection described in Slick/Champion Aerospace Service Bulletin No. SB1-19:

1. Re-install the magneto and time to the engine using appropriate methods and practices.
2. Contact an Authorized Lycoming Distributor and file a warranty claim for Removal and Installation Labor in accordance with the latest revision of ***SSP-875 Removal and Installation Labor Allowance Guidebook***.



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If the magneto fails the inspection described in Slick/Champion Aerospace Service Bulletin No. SB1-19:

1. Contact an Authorized Lycoming Distributor to order a replacement magneto.
2. Upon receipt, install the replacement magneto.
3. Return the non-compliant magneto to Lycoming through the same Authorized Lycoming Distributor that ordered the replacement magneto and file a warranty claim for:
  - Reimbursement of the replacement magneto
  - Removal and Reinstallation Labor in accordance with the latest revision of *SSP-875 Removal and Installation Labor Allowance Guidebook*
  - Associated Standard Freight

**Warranty Instructions for Engines / Magnetos No Longer Within the Factory Warranty Period**

Upon completion of instructions in the attached Slick/Champion Aerospace Service Bulletin No. SB1-19 dated 02/08/2019.

If the magneto passes the inspection described in Slick/Champion Aerospace Service Bulletin No. SB1-19:

1. Re-install the magneto and time to the engine using appropriate methods and practices.

If the magneto fails the inspection described in Slick/Champion Aerospace Service Bulletin No. SB1-19:

1. Contact an Authorized Lycoming Distributor to order a replacement magneto.
2. Upon receipt, install the replacement magneto.
3. Return the non-compliant magneto to Lycoming through the same Authorized Lycoming Distributor that ordered the replacement magneto and file a warranty claim for:
  - Reimbursement of the replacement magneto

If you have any questions, contact Lycoming Field Service by phone at 570-327-7222 or 877-839-7878.

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# Service Bulletin

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

**SUBJECT:** Mandatory inspection of impulse coupled Slick magnetos

**MAGNETO MODELS**

**AFFECTED:** The following magneto models with serial numbers between 16010001 and 18050664:

4301, 4303, 4316, 4330, 4333, 4346, 4354, 4371, 4372, 4373, 4374, 4381, 4392, 6310, 6314, 6320, 6324, 6331, 6351, 6352, 6355, 6361, 6362, 6364, 6367, 6377, 6379, 6380, 6382, 6399

**NOTE:** 16010001 = SN manufacture date of January 2016 and  
18050664 = SN manufacture date of May 2018

**ENGINE MODELS**

**AFFECTED:** 4300 series and 6300 series magnetos.

**AIRFRAME MODELS**

**AFFECTED:** 4300 series and 6300 series magnetos.

**BACKGROUND INFORMATION:**

There have been limited reports in which impulse coupling stop pins have moved relative to the factory placement within the magneto frame of Slick magnetos. There has been one report of a liberated stop pin. A liberated stop pin could potentially enter the gear train of the engine, resulting in damage to the gear train, damage to engine accessories and could ultimately cause catastrophic engine failure.

**COMPLIANCE:**

Inspect affected magneto models for movement of impulse coupling stop pin at the next convenient maintenance interval, not to exceed the next 100 hours or 400 hours Time in Service (TIS), and every 500 hours thereafter. Alternatively, replace the affected magneto with an approved model magneto, outside the above serial number range, or compliant with the SB1-19 dimensions herein for the stop pin. Document service bulletin compliance as written entry in the applicable Aircraft and/or Engine logbook.

**PROOF OF COMPLIANCE:**

Appropriate logbook entries. See SB1-19 COMPLIANCE and WARRANTY INFORMATION.

**MAINTENANCE PARTS AFFECTED:**

None.

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# Service Bulletin

**PARTS REQUIRED**

**PER BULLETIN:** Replacement magnetos as required.

**TOOLS REQUIRED:** T-118 mag timing pin, mag timing light, calibrated measuring device, and standard shop tools.

**WEIGHT CHANGE:** None.

**REQUIRED SERVICE**

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

**WARRANTY**

**INFORMATION:** NOTE: Labor is not included per Champion warranty policy.

If the magneto is within the listed s/n range and fails the inspection within these DETAILED INSTRUCTIONS, the magneto should be returned for warranty consideration through the original point of sale. Champion Aerospace will not accept direct returns. Affected magnetos that fail the required inspections must be returned with proof of purchase to the original point of sale (either Authorized Champion Distributor or Aircraft Engine Manufacturer) for warranty consideration. Champion waives the published warranty limits for TIS and calendar period for parts affected by this Service Bulletin. Warranty Credits will only be processed to an Authorized Champion Distributor or Aircraft Engine Manufacturer after final receipt of magneto and confirmation of required measurement. Champion reserves the right to deny warranty and return magneto if measurements are subsequently found to be compliant with the Service Bulletin.

**DETAILED INSTRUCTIONS:**

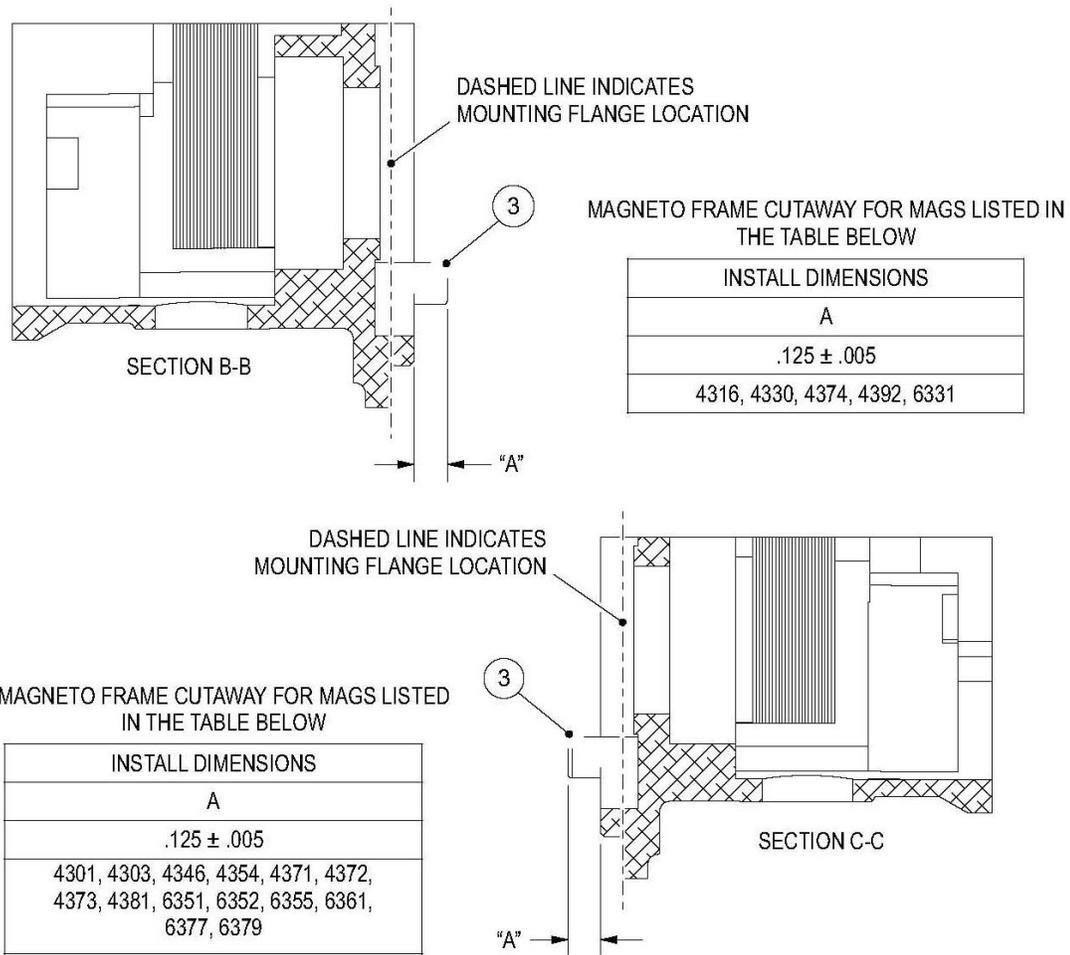
- Warranty form must include name, shipping address, model number, serial number of the magneto(s) being returned and TIS information in the box with the magneto(s). (Distributors have warranty forms)
- Do not leave drive gears installed on the magneto(s). Champion cannot guarantee return of these components
  - A. Locate magneto serial number on magneto dataplate. If magneto serial number is determined to be within the range specified in this bulletin, remove the magneto from engine in accordance with the latest revision of the engine manufacturer’s manual(s).
  - B. Inspect the magneto to confirm the necessary recess/projection (based on individual magneto type) of the stop pin. If the stop pin installation depth is not in compliance with the dimension shown in Figures 1 through 6, the magneto must be replaced with a new or serviceable unit that is in compliance with this service bulletin.
  - C. Repeat this inspection every 500 hours TIS, until end of product life.

*THIS DOCUMENT SUBJECT TO THE CONTROLS AND RESTRICTIONS ON THE FIRST PAGE*

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# Service Bulletin



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTIONS B-B AND C-C. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT GREATER THAN 0.130 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

**FIGURE 1. MAGNETO FRAME CUTAWAY SECTIONS B-B AND C-C**

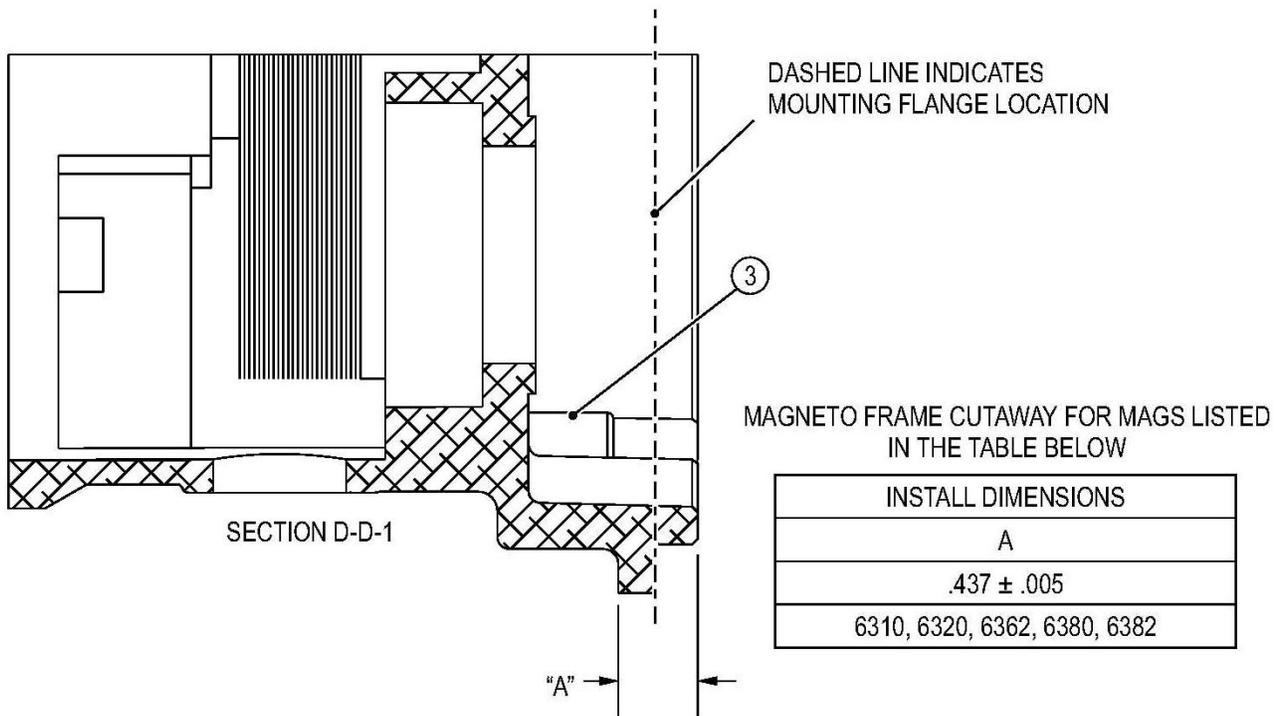
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**Service Bulletin**



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTION D-D-1. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT LESS THAN 0.432 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

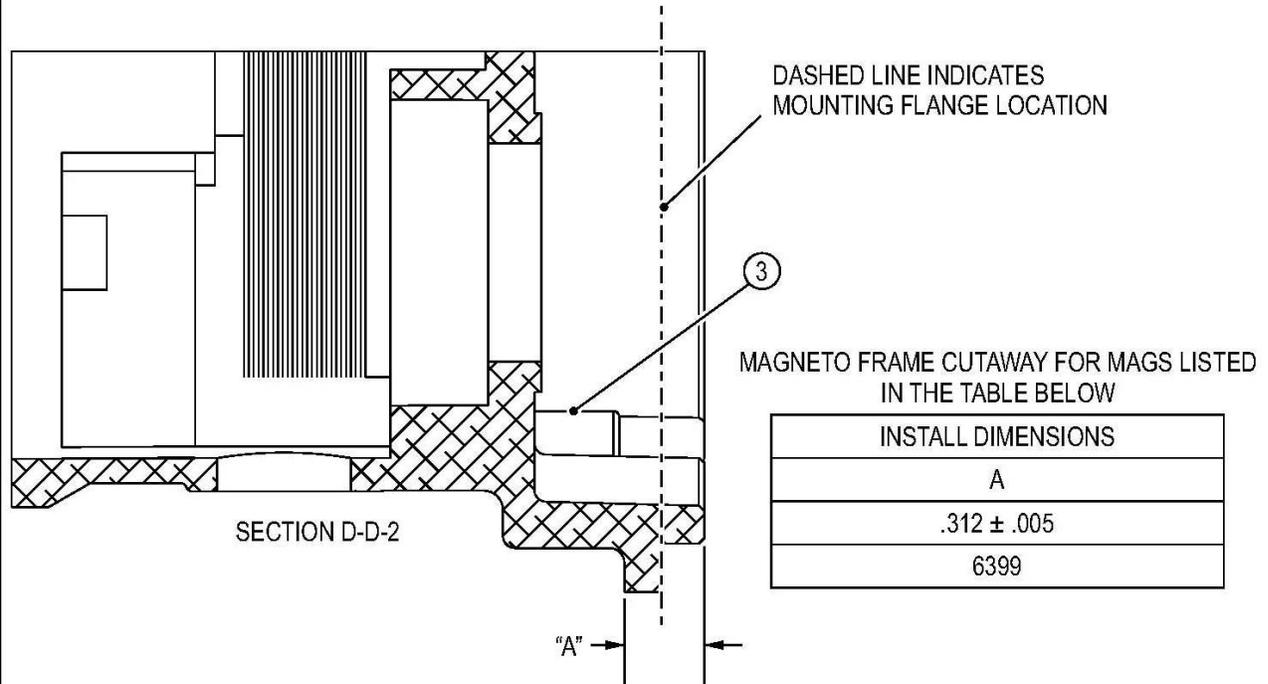
**FIGURE 2. MAGNETO FRAME CUTAWAY SECTION D-D-1**

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# Service Bulletin



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTION D-D-2. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT LESS THAN 0.307 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

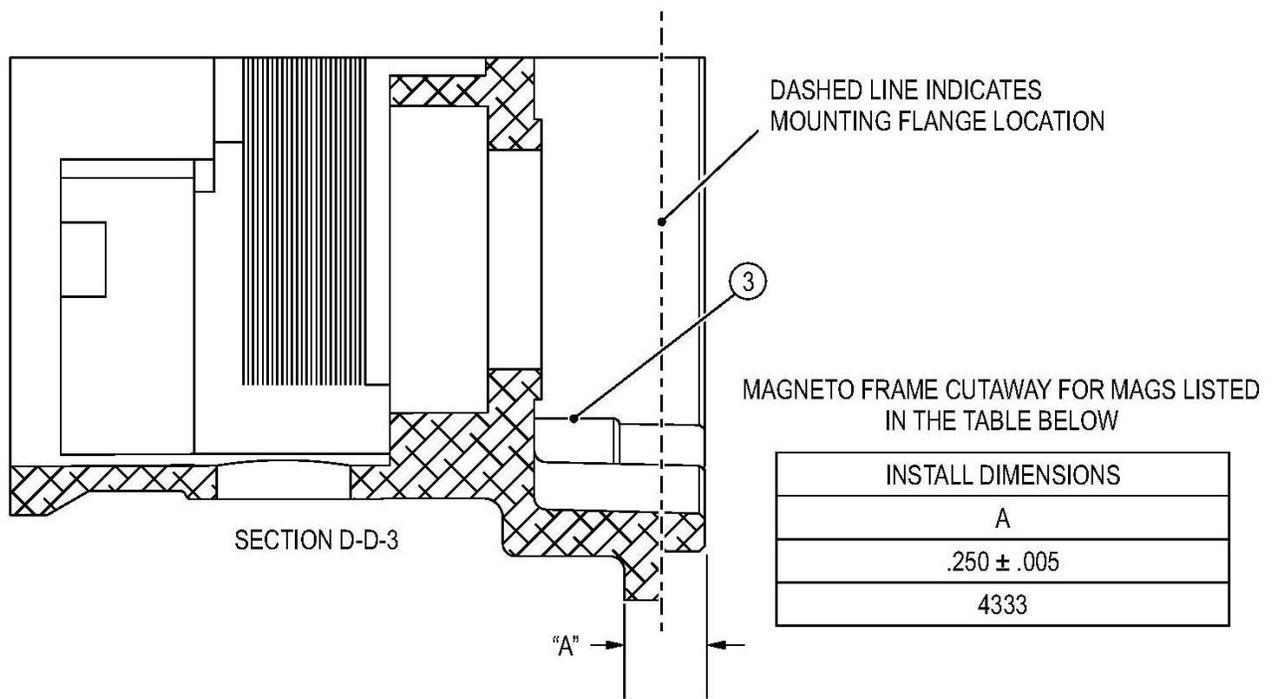
**FIGURE 3. MAGNETO FRAME CUTAWAY SECTION D-D-2**

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**Service Bulletin**



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTION D-D-3. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT LESS THAN 0.245 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

**FIGURE 4. MAGNETO FRAME CUTAWAY SECTION D-D-3**

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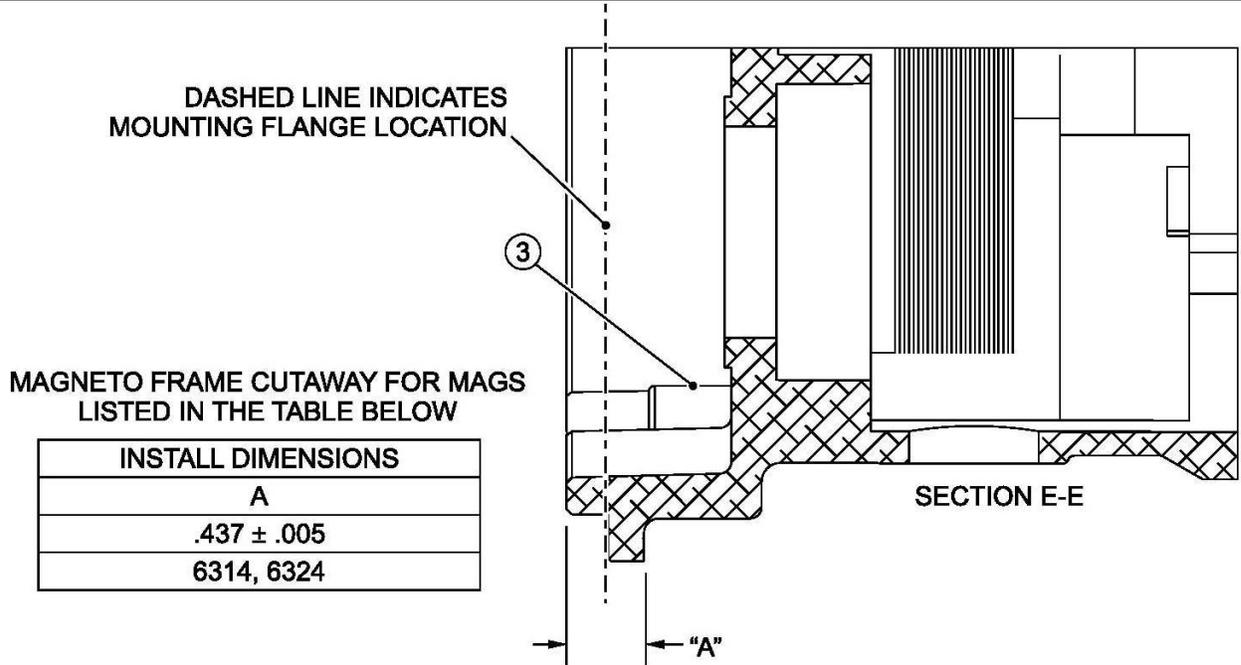
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**Service Bulletin**



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTION E-E. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT LESS THAN 0.432 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

**FIGURE 5. MAGNETO FRAME CUTAWAY SECTION E-E**

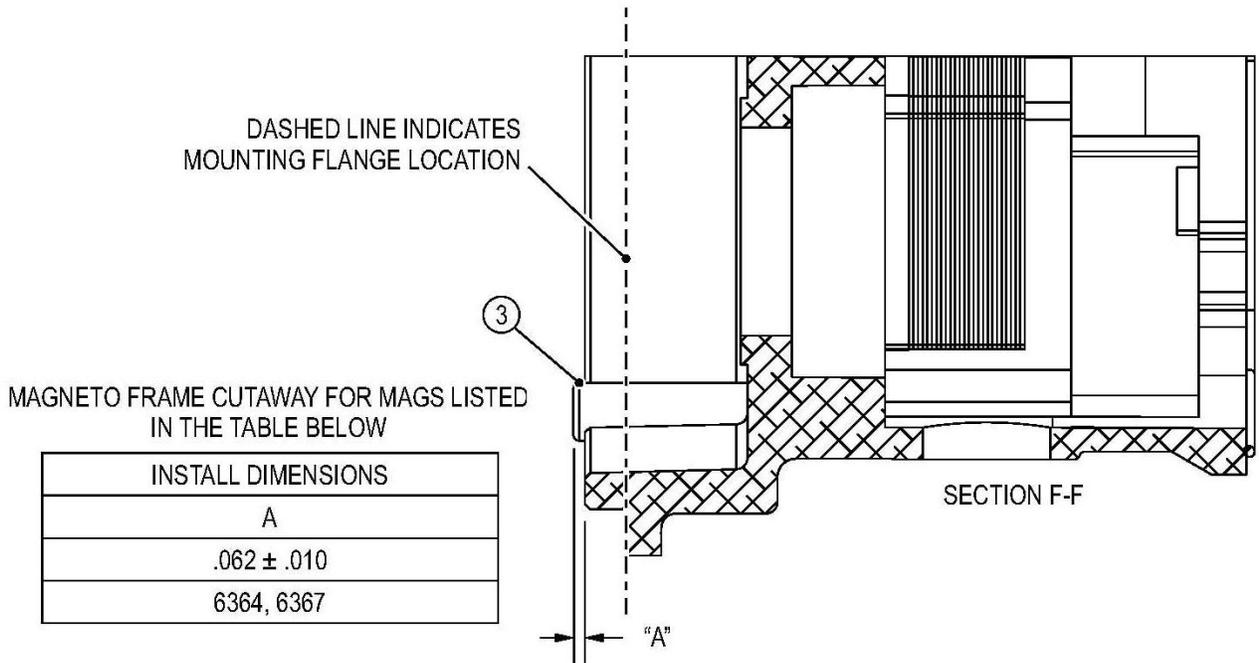
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**Service Bulletin**



USE A CALIBRATED MEASURING DEVICE TO MEASURE DISTANCE "A", AS SHOWN IN CUTAWAY SECTION F-F. MAKE SURE THE FRAME SURFACE IS FREE OF CONTAMINANTS. ANY MEASUREMENT GREATER THAN .072 INCH OF ANY PART OF THE STOP PIN (3), THE MAGNETO SHOULD BE REMOVED FROM SERVICE AND RETURNED TO CHAMPION FOR WARRANTY.

**FIGURE 6. MAGNETO FRAME CUTAWAY F-F**

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