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MANDATORY

SERVICE BULLETIN

DATE: October 30, 2015 Service Bulletin No. 411D
(Supersedes Service Bulletin No. 411C)
Engineering Aspects are
FAA (DER) Approved

SUBJECT: Adapter Kit for Magneto Isolation Drive

MODELS AFFECTED: All O-360-A4A and -A4J series engines with serial number up to and including L-23659-36A, IO-360-B4A series engines with serial number up to and including L-17977-51A (not installed on Piper PA28-181 (Archer III) aircraft) and rebuilt engines shipped prior to August 17, 1977 are subject to this modification. Also, any O-360 model converted to O-360-A4A or -A4J must comply with this Service Bulletin.

All O-360-A3A engines installed in Avions Pierre Robin aircraft with serial numbers up to and including L-32684-36A and any rebuilt or overhauled engines ordered for Avions Pierre Robin aircraft and shipped prior to December 1, 1990 **must** comply with this Service Bulletin.

All O-360-A3A engines installed in Avions Pierre Robin Aircraft with serial number L-32685-36A and up and any rebuilt or overhauled engines ordered for Avions Pierre Robin Aircraft and shipped after December 1, 1990 are in compliance with this Service Bulletin.

TIME OF COMPLIANCE: Within the next 100 hours of engine operation, or at annual inspection, whichever occurs first.

REASON FOR REVISION: Qualified applicability for IO-360-B4A engines not installed in Piper PA28-181 (Archer III) aircraft.

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.

IO-360-B4A engines (not installed on Piper PA28-181 (Archer III) aircraft) and O-360-A4A, -A4J, and -A3A engines are built with a crankshaft designed to match the operating characteristics of the propeller. This combination, by effecting efficient power transfer, provides satisfactory performance of the aircraft. However, service records of aircraft with this engine and propeller combination indicate requirement for more than usual maintenance of the right hand magneto drive components.

To provide a more maintenance-free magneto drive system, a new magneto drive adapter and rubber cushion has been designed to isolate the magneto from the vibratory forces that could be transmitted by the driving components. This product improvement has been introduced in both new and rebuilt engines with serial number and date as shown above.

Also, a modification kit is now available for field installation as described in the following procedure. Note that this modification consists of removing the right magneto, replacing the attaching studs in the accessory housing, and replacing the drive components of the magneto as shown in Figure 1.



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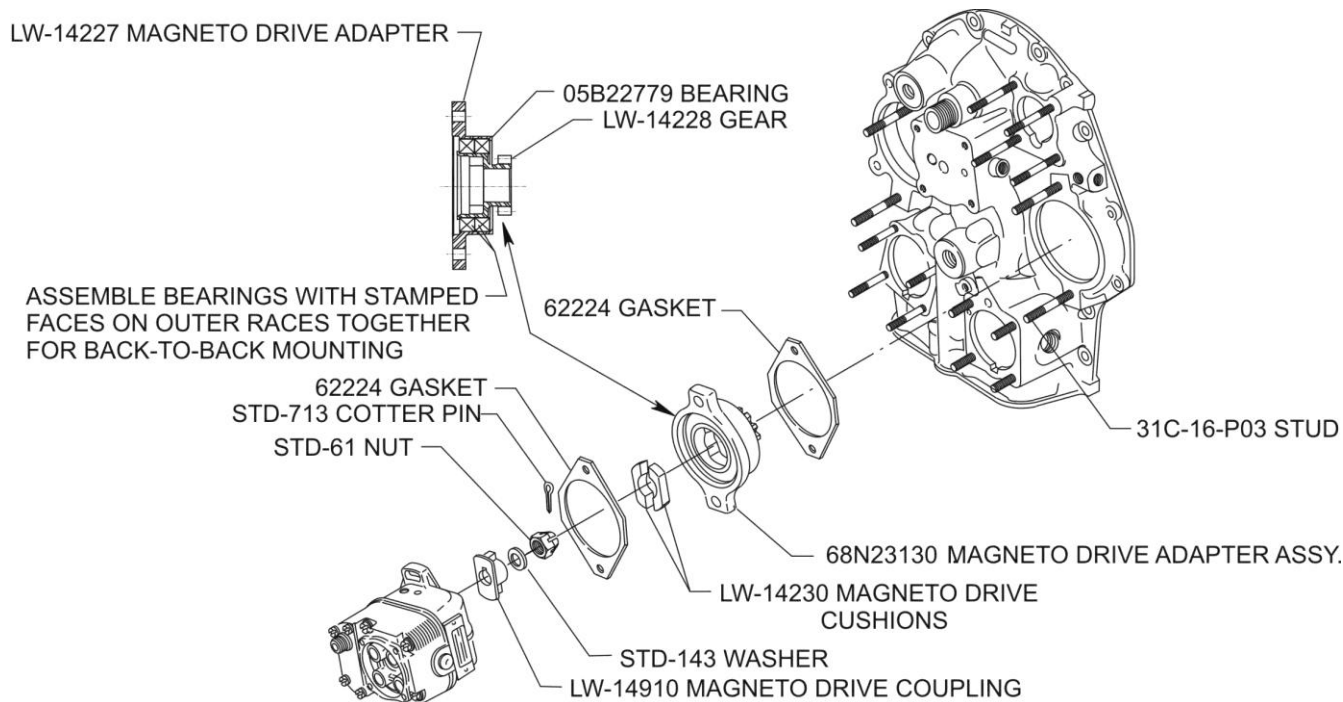


Figure 1
Magneto Drive and Component Parts
IO-360-B4A Engines (Not Installed On Piper PA28-181 (Archer III) Aircraft)
and O-360-A4A, -A4J, and -A3A Engines

1. Remove the right magneto and the attaching studs in the accessory housing.
2. Install the two (2) P/N 31C-16-P03 studs in the accessory housing. The correct driven height of these studs is 1.34 to 1.38 in. (34 to 35 mm).
3. Place a new P/N 62224 gasket over the studs on the magneto mounting pad in the accessory housing. Then install P/N 68N23130 magneto drive adapter over the studs.
4. Remove the cotter pin, nut, washer, and drive gear from the magneto drive shaft.
5. Clean the magneto shaft with a cloth wetted with methyl-ethyl ketone or clean unleaded gasoline. Dry thoroughly and apply a light coat of Loctite C5-A[®] Copper Based Anti-Seize Lubricant to the tapered portion of the magneto shaft (Figure 2).
6. Install the P/N LW-14910 magneto drive coupling on the magneto shaft; then reassemble the washer and nut removed in Step 4. Torque the nut to 20 to 25 ft.-lb. (27 to 34 Nm) and secure the nut with a new P/N STD-713 cotter pin.
7. Install two (2) P/N LW-14230 drive cushions in the P/N 68N23130 magneto drive adapter, then place a P/N 62224 gasket over the studs against the adapter and reassemble the magneto on the engine.



Figure 2
Apply Loctite C5-A[®] Copper Based
Anti-Seize Lubricant to the Shaft

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8. Time the magneto as described in Section IV of the Direct Drive Overhaul manual, P/N 60294-7.
9. Record any replacement activity and compliance with this Service Bulletin in the engine logbook.

PARTS DATA:

The following kit of parts to accomplish this modification is available through all Lycoming Distributors.

Kit P/N LW-15436 Magneto Isolation Drive consists of the following parts.

Qty.	Part No.	Description
(2)	31C-16-P03	Stud
(1)	68N23130	Right magneto drive adapter assembly
(2)	LW-14230	Right magneto drive cushions
(1)	LW-14910	Right magneto drive coupling
(2)	62224	Gasket
(1)	STD-713	Cotter pin

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