

**MANDATORY
SERVICE BULLETIN**

DATE: May 6, 1957 Service Bulletin No. 183A
(Supersedes Service Bulletin No. 183)

SUBJECT: Magneto Timing Discrepancies

MODELS AFFECTED: All Lycoming Opposed Series Aircraft Engines.

TIME OF COMPLIANCE: During periodic inspection of the engine. (100 hour intervals, or more often at discretion of operator.)

We have received complaints of faulty engine performance, burnt pistons and engine failures that were traced directly to improperly timed ignition and inadequate ignition inspection. In many instances this condition is caused by improper technique on the part of personnel engaged in making periodic inspection or adjustment to the ignition timing. Apparently, it is the belief of some individuals that an engine is correctly timed if: (1) number one cylinder is on its compression stroke (2) ignition timing marks on the engine are in alignment (3) the pointer and white notched tooth as viewed through the window of the magneto, are in alignment. This is not true.

The degree of accuracy necessary to correctly time the ignition cannot be achieved by this method. The white notched tooth and the pointer on the magneto as shown in figure 1 are provided only as a means of correctly positioning the magneto during its assembly on the engine and are definitely not intended as an indicator of the point of breaker opening.

Improved engine design with higher cylinder pressures for increased efficiency and horse power necessitates greater accuracy in ignition timing.

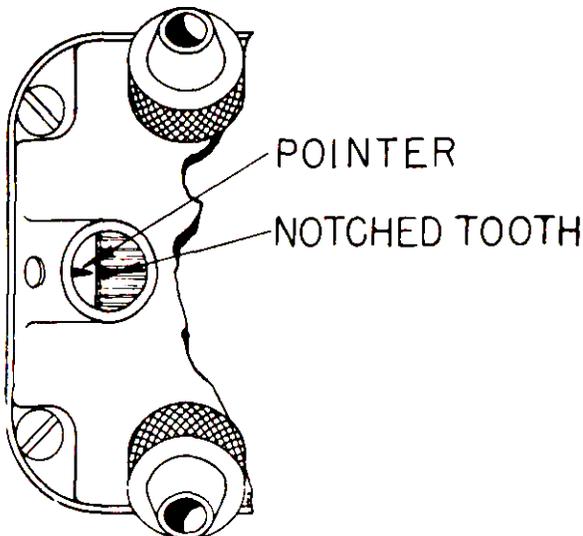


Figure 1 - Alignment of Notched Tooth and Pointer

This is accomplished only by the use of a timing light to indicate point of breaker opening and close adherence to instruction on ignition timing referenced in the handbook applicable to the particular engine model. Furthermore, when ignition timing marks are inaccessible or engine parts having ignition timing marks have been replaced, we recommend positioning the crankshaft relative to degrees before top dead center by using Time-Rite Piston Position Indicator.

NOTE

On engines with heavyweight magnetos, if it is found the magneto breaker point clearances have closed due to wear of fiber block, check the point gap, using feeler gages, and adjust to no less than .014 inch or to no more than .018 inch. (See figure 2). If it is necessary to adjust the points; it will also be necessary to recheck the ignition timing, using the timing light and in accordance with the instructions in the applicable engine manual. Breaker points on lightweight magnetos are not to be adjusted to a given clearance.

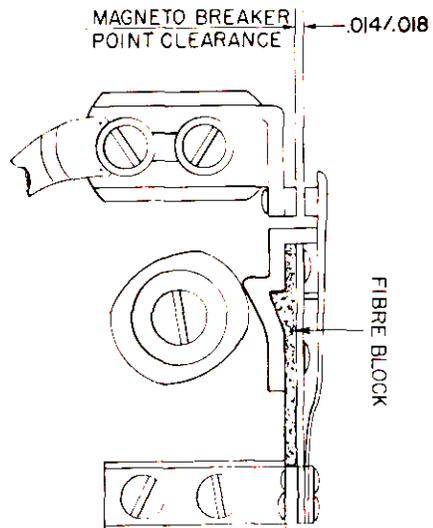


Figure 2 - Adjusting Breaker Point Clearance on Heavyweight Magnetos