



A Textron Company

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# SERVICE INSTRUCTION

DATE: October 27, 2006

Service Instruction No. 1517  
Engineering Aspects are  
FAA Approved

SUBJECT: Timing Change for TIO-540-AK1A Series Engines

MODELS AFFECTED: Lycoming model TIO-540-AK1A aircraft engines.

TIME OF COMPLIANCE: At overhaul or at owner's discretion.

A slight increase in engine performance has been found by changing the engine timing from 20° BTC to 23° BTC. This modification has been incorporated in the current production of both new and rebuilt engines. This timing change does not affect the normal operating parameters of the engine and no other engine specifications have been modified.

The timing change may be incorporated in engines already in service as follows:

1. Retime both magnetos using the 23° timing mark instead of the 20° timing mark on the starter ring gear. See Lycoming Operator's Manual, P/N 60297-23P or P/N 60297-23 for the magneto timing procedure.
2. Replace the engine's existing 20° BTC data plate with a new 23° BTC data plate.
  - a. Lycoming will issue a new 23° BTC data plate after receiving both a written request and the 20° BTC data plate. In the written request be sure to include the aircraft and engine serial number and documentation that the engine was retimed to 23° BTC. This documentation may be a statement from the aircraft owner or mechanic, a copy of the permanent engine record, or a copy of the engine logbook. Address all requests to:

Lycoming Engines  
652 Oliver Street  
Williamsport, PA 17701  
Attn: Customer Service, 23° Timing Change

- b. Upon receipt of the written request and the 20° BTC data plate, a new 23° BTC data plate will be furnished.
  - c. It will be the sole responsibility of the altering agent to attach the new 23° BTC data plate and record this information in the permanent engine records and/or engine logbook.

## NOTE

Field facilities may not alter the engine data plate to reflect the timing change.