



Inadvertent Mixing of Light-wall and  
Heavy-wall Piston Pins

**AWB** 85-009 **Issue :** 1  
**Date :** 26 July 2008

## 1. Applicability

All operators and maintainers of Lycoming Engine model O-540-J3C5D, O-540-J1A5D and O-540-J3A5D engines.

*Note: Lycoming engine model O-540-J3C5D is installed on but not limited to Cessna C182RG; Engine model O-540-J1A5D is installed on but not limited to Maule M-5, M-6, M-7, MX-7 and M-8 models; Engine model O-540-J3A5D is installed on but not limited to Piper PA-28-236 (Dakota). Check your engine model number for applicability.*

## 2. Purpose

This AWB brings to your attention, a possibility of inadvertent installation of heavy wall piston pins in Lycoming engine models O-540-J3C5D, -J1A5D and -J3A5D which are designed to use light wall pistons.

## 3. Background

CASA has received service difficulty reports on Lycoming O-540-J3C5D where engine failure has been attributed to the incorrect piston pin and piston configuration for the engine.

According to one of the reports, cylinders were removed because of low compression. On removal, valve seats were found moved. Inspection revealed cracked piston skirts in several pistons. Investigation found heavy wall piston pins P/N LW14077 fitted to light pistons P/N LW13396.

According to another report, the maintenance organisation found a large piece of piston skirt in the engine oil suction filter during a 100Hrly inspection (Time since Overhaul = 1600Hrs). On further inspection, all 6 pistons (PN LW-13396) were found cracked. Investigation found that this engine was assembled with piston pins PN LW-14077 fitted to light pistons P/N LW13396. The parts manual for model O-540-J3C5D requires installation of piston pins PN LW-13445 or LW-14068 with light pistons P/N LW13396.

## 4. Recommendation

CASA recommends the following:

- a) Check records related to your engine, making reference to applicable manuals, service documents and parts catalogues, to confirm correct piston pin and piston configuration.
- b) If your engine is found to have the incorrect part number piston pin and piston configuration, rectification action may be required.



Inadvertent Mixing of Light-wall and  
Heavy-wall Piston Pins

**AWB** 85-009 **Issue :** 1  
**Date :** 26 July 2008

## 5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

[AirworthinessBulletin@casa.gov.au](mailto:AirworthinessBulletin@casa.gov.au)

Or in writing, to:

Airworthiness Engineering Group  
Civil Aviation Safety Authority  
GPO Box 2005, Canberra, ACT, 2601