

»» **Service Bulletin**

FAA Approved

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Replaces 101-002

Date: 7/8/04

Subject: Inadvertent mixing of light-wall and heavy-wall piston pins in an engine assembly using Superior Thin Wide Deck Cylinders.

Engine Applications: Lycoming Engines

O-540-J1A5D, -J2A5D, -J3A5D and -J3C5D and
IO-540-AB1A5, -W1A5, -W1A5D and -W3A5D with Superior P/N SL36000TW-A20P
Cylinder Power Assemblies.

Scope:

P/N SL36000TW-A20P cylinder power assemblies, supplied by Superior prior to January 12, 2001 for the above Lycoming O-540 and IO-540 engine models, were supplied with a heavy-wall piston pin assembly, P/N SL13444-1. It has been determined that the above Lycoming engine models are equipped with the light-wall piston pin, P/N LW-13445, and two piston pin plugs, P/N 60828, at the Lycoming factory

Unbalanced Installation: If these P/N SL36000TW-A20P cylinder assemblies with heavy-wall piston pins have been installed in less than full engine sets and in an engine location opposite a cylinder containing a light-wall piston pin, unacceptable engine imbalance will result.

Compliance:

This condition must be corrected immediately before further flight.

Caution: Failure to comply with the requirements of this Service Bulletin can result in engine damage or failure

Balanced Installation: In all cases where the P/N SL36000TW-A20P cylinder assemblies with the heavy-wall piston pins are installed opposite each other on the engine (either in partial or full engine sets), engine balance is not compromised and the condition does not require immediate correction. Pins may be mixed in an engine so long as the same pin is used in the cylinder on the opposite side of the engine (example: cylinder numbers 1 and 2, 3 and 4, etc.).

Compliance: An entry must be made in the engine logbook, identifying this condition. At the next removal of any cylinder or cylinders or at major overhaul, the heavy-wall pins must be replaced with P/N SL13445, light-wall, piston pins.

Labor and Parts Allowances:

Cylinder(s) installed with the heavy-wall P/N SL13444-1 pin assembly opposite a light-wall piston pin P/N SL13445 or a Lycoming P/N LW-13445 (or other equivalent approved replacement): Superior Air Parts will allow five hours labor for removal and replacement of the first P/N SL36000TW-A20P cylinder on each side and one hour each for a maximum of two more Superior cylinders. Superior will provide the P/N SL13445 pin, two P/N 60828 pin plugs and top overhaul gasket sets for each Superior cylinder requiring pin replacement.

***Note:** To avoid possible ring damage and save time and effort, the piston should be pulled out of the cylinder bore just far enough to access the piston pin.*

Cylinders with the heavy-wall piston pins opposite each other (either in partial or full engine sets):

- 1) If the engine is accessed for cylinder removal (repair or replacement) prior to major overhaul, Superior will provide the P/N SL13445 pins, 60828 pin plugs and top overhaul gasket sets necessary to replace all P/N SL13444-1 pins installed when the P/N SL36000TW-A20P cylinder assemblies were originally installed. Since the engine is already accessed, no labor will be allowed.
- 2) If the engine is disassembled for major overhaul, no parts or labor allowance will be allowed. Light-wall pins are 100% replacement items, thus all pins would be subject to replacement had Superior provided P/N SL13445 pins with the P/N SL36000TW-A20P cylinder assemblies.

Removal and Replacement Reimbursement Procedure:

After work has been completed in compliance with Service Bulletin No. B01-02, a Superior Warranty Claim Form should be completed and submitted to Superior along with the P/N SL13444-1 heavy wall piston pin assemblies that were

removed from the engine. Please indicate in the "Customer's Description of the Difficulty" section, which cylinder numbers were involved in the pin replacement. To assure prompt processing of your claim, please assure that the Warranty Claim Form and the box containing the returned P/N SL13444-1 pin assemblies should be marked "Compliance with Service Bulletin No. B01-02".

Labor and Parts allowance stated above will be effective for one year from the date of this bulletin.

For further information, please contact Superior Air Parts, Inc. Piston Product Support at 1-800-420-4727.