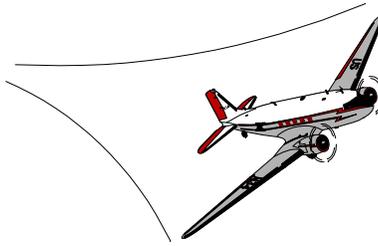


# SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

AIRCRAFT CERTIFICATION SERVICE  
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This is issued for informational purposes only and any recommendation for corrective action is not mandatory.

## **Introduction**

The purpose of the Special Airworthiness Information Bulletin is to alert all operators of Lycoming engines, repair stations, mechanics holding Inspection Authorizations (IA), and Principal Maintenance Inspectors in the FAA Flight Standards District Offices (FSDO) of the importance of not reusing the oil pressure screen housing locking star washer on Textron Lycoming engines.

## **Background**

On July 6, 1996, an accident occurred on a HU-269-C aircraft belonging to the Tampa Police Department with a Textron Lycoming engine, Model HIO-360-DIA. Visual examination of the accessory section indicated an external oil leak originating at the base of the oil pressure screen housing. Investigation of the nuts and washers revealed that the washer, P/N STD-160, Washer, Internal Locking, 1/4 in., commonly known as "star washers" can be crushed under normal torquing pressures (90 in. lbs.), thereby rendering the locking washers ineffective. The lock washers are designed to have a deflected spring action with hardened cutting edges which aids in fastener retention. These spring washer tabs are displaced under normal torquing pressures and lose their locking capability after first use. In addition, the loss of retention after the first use is also aided by high engine temperature cycling.

## **Recommendations**

By issuing this Special Airworthiness Information Bulletin, the FAA Engine and Propeller Directorate is alerting all operators of Textron Lycoming engines, repair stations, mechanics holding Inspection Authorizations (IA), and Principal Maintenance Inspectors in the FAA Flight Standards District Offices (FSDO) of the importance of good maintenance practices such as:

- Lock washers should not be reused at overhaul or any time they are removed. AC 65-12A Chapter 10 - Engine Maintenance and Operation (General Overhaul Procedures), states that all safety devices should be disposed of when they are removed.

## **For Further Information Contact**

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