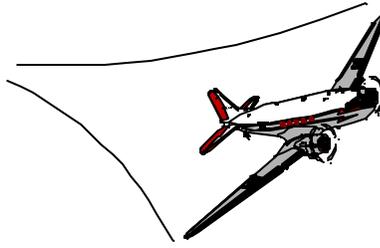


SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation

**Federal Aviation
Administration**

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Aircraft Certification Service
Washington, DC

We post SAIBs on the internet at "av-info.faa.gov"

This is information only. Recommendations are not mandatory.

Introduction

This Special Airworthiness Information Bulletin alerts you, owners or operators of **Pratt & Whitney (PW) JT9D series turbofan engines**, Repair Stations, and Principal Maintenance Inspectors in FAA's FSDOs to the possibility of an uncontained engine failure when 5th stage LPT airseal cooling holes are blocked.

Affected Products

Pratt & Whitney JT9D -7Q, -7Q3, -59A, -70A

Background

During a recent FAA investigation of an uncontained failure of a JT9D-7Q 5th stage low-pressure turbine (LPT) disk, we discovered that the LPT 5th stage airseal cooling holes were completely blocked by plasma spray. The original 5th stage airseal contains 60 holes to introduce cooling flow to cool the LPT 5th stage disk web and disk rim. Blocking of the cooling flow results in unacceptable high temperatures on the disk which can cause the disk to crack and ultimately separate. Review of the JT9D Engine Manual indicates that plasma spray repair of the LPT 5th stage airseal is permitted for the snap diameter, seal wing and face. Blockage of cooling holes may occur if proper repair procedures are not followed.

Recommendation

The FAA Engine Certification Office (FAA ECO) highly advises owners, operators, and engine Repair Stations to inspect the incoming parts and post-repaired parts to ensure the cooling holes on the 5th stage LPT airseal, P/N760659, are not blocked. We highly recommend you remove any blockage of the cooling holes, if necessary. We also advise all repair facilities involved in JT9D airseal repair that the only currently acceptable process is to follow the instruction of JT9D Engine Manual (P/N777210) Turbine Airseal – Repair -4, and Inspection -01 to ensure **‘NO PLASMA SPRAY IS PERMITTED IN AIRSEAL (COOLING) HOLES OR ON HOLE EDGE BREAKS’**.

For Further Information, Contact

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