



**SUBJ:** Turbine Engine Oil System – Scavenge Oil Tube Coking and Proper Cleaning at Overhaul

**SAIB:** NE-13-31  
**Date:** May 9, 2013

*This is information only. Recommendations aren't mandatory.*

## **Introduction**

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners, operators, and certified repair facilities of airplanes equipped with **Pratt & Whitney Division (P&W) PW4000 series turbofan engines** to potential reduced oil flow in the No. 4 bearing compartment due to oil nozzle blockage. The airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

## **Background**

We have received reports of blockage of the No. 4 bearing oil nozzle on PW4000-100 and PW4000-94 model engines resulting in reduced oil flow, No. 4 bearing distress and internal engine fire. In one case, the reduction in oil flow led to a low pressure turbine (LPT) shaft fracture. These events are suspected to be caused by incomplete cleaning of the oil supply tube for the No. 4 bearing. These engines are installed on, but not limited to, Airbus A300, A310, and A330, Boeing 747-400, 767, and 777, and McDonnell Douglas MD-11 airplanes.

This SAIB provides information to operators on oil nozzle blockage and lists service information intended to prevent further occurrences of incomplete cleaning and possible engine failure. Current cleaning instructions require the removal of all varnish and coke contamination from tubes and nozzles. Additionally, P&W recently issued a revision to the Cleaning, Inspection and Repair (CIR) manual to specify a borescope inspection to verify the thoroughness of the cleaning operation when the No. 4 bearing oil tubes and nozzles are removed from the engine. For service information related to cleaning and inspection of the No. 4 bearing oil tubes and nozzles, refer to the following:

- Pratt & Whitney CIR Manual part number (P/N) 51A357 ATA Sections: 72-54-00 Turbine Exhaust Case, 72-54-07 Pressure Tube, 72-54-08 Scavenge Tube Outer, 72-54-09 Scavenge Tube Inner, 72-54-10 Oil Nozzle, 72-54-19 Transfer Tube, 72-54-20 Damper Supply Tube, 72-54-21 Front Nozzle

## **Recommendations**

We recommend that a thorough cleaning and borescope inspection be performed on all oil supply and scavenge tubes and nozzles to remove all coke build-up. Guidance may be found in the manual listed above.

## **For Further Information Contact**

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**For Related Service Information Contact**

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