



Rolls Royce-Allison 250 Engine Fuel and  
Control (P3) Tube Failures

**AWB** 73-003 **Issue :** 1  
**Date :** 14 February 2008

## 1. Applicability

All helicopters powered by Rolls-Royce Allison 250 Series engines.

## 2. Purpose

Advise operators and maintainers to undertake specific maintenance actions with regard to the Scroll-to-Pc Filter Tube Assembly, also known as the "P3 Line".

## 3. Background

The external piping on light turbine engines is quite susceptible to chafing and other damage, as described in Airworthiness Bulletin (AWB) 02-024 Maintenance of External Tubes and Lines - Small Gas Turbine Engines. In addition to the recommendations given in AWB 02-024, CASA takes this opportunity to direct attention to the Rolls Royce Allison 250 Scroll-to-Pc Filter Tube Assembly. This pipe provides compressor discharge pressure to the Fuel Control Unit (FCU). When this pipe leaks, the air pressure signal to the FCU may be reduced or lost, resulting in reduction in engine power, engine RPM decreasing and remaining at the idle RPM setting, or flame out.

In addition to the failure modes described in AWB 02-024, pipes can fail in the region of the flare underneath the coupling nut sleeve due to age and maintenance mishandling damage. The pipe coupling nut and sleeve has to be disassembled in order to properly inspect this area. Failures have been linked to the repeated incorrect tightening of the coupling nut.

The engine manufacturer has issued the following: "ALERT Commercial Engine Bulletin (CEB) CEB-A-1294 Engine Fuel and Control - Replace P/N 6848471 and P/N 23051141 Tube Assemblies"; and "ALERT CEB-A-1323 Engine Fuel and Control - Replace P/N 6848471 Tube Assemblies".

Additional data is referred to in these CEB's.

## 4. Recommendation

CASA recommends that all maintainers and operators:

Review the applicable Rolls Royce-Allison CEB's, and ensure the correct P/N tube assembly is installed between the compressor scroll-to-Pc filter (P3 pipe).

Ensure all plumbing, particularly the P3 pipe, receives close inspection each time it is removed for any reason, paying particular attention to the flared ends underneath the sleeve coupling nuts, and



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Incorporate the applicable CEB inspection requirements into the system of maintenance for the engine and establish a retirement “life” policy for engine plumbing.

## 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:

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