AWB 57-2 Issue 1, Wing spar to fuselage attach fitting corrosion

Wing spar to fuselage attach fitting corrosion

AWB 57-2 Issue 1, 27 March 2006

Applicability

Aircraft incorporating aluminium alloy wing spars attached to fuselages by steel attach fittings.

Purpose

To alert aircraft operators and maintainers to the danger of interfacial corrosion between wing spars and steel attach fittings and the need to adequately inspect for this type of corrosion.

Background

Many instances have been observed of significant, unacceptable corrosion at interfaces between aluminium wing spars and steel wing attachment fittings which, if not checked, could result in catastrophic failure of a wing connection. Detection of such interfacial corrosion may require disassembly of the wing spar and attach fitting or non-destructive inspection.

Recommendation

Operators and maintainers should confirm whether aircraft for which they are responsible for have aluminium wing spars and steel fuselage attach fittings. It is recommended that such wing spars and their attach fittings be disassembled to inspect for corrosion or that they be non-destructively inspected. This should occur during major wing maintenance, but an inspection at least every 5 years is recommended for aircraft over fifteen years old. Where corrosion is visually detected around the periphery of a connection, it is strongly recommended that the spar and attach plate be disassembled to check for any hidden interfacial corrosion. If interfacial corrosion is detected, the structural integrity of the connection should be assessed and authorised repair or replacement made.

Details of any corrosion found must be reported to CASA through the SDR system, preferably with attached digital photos of the corrosion damage.

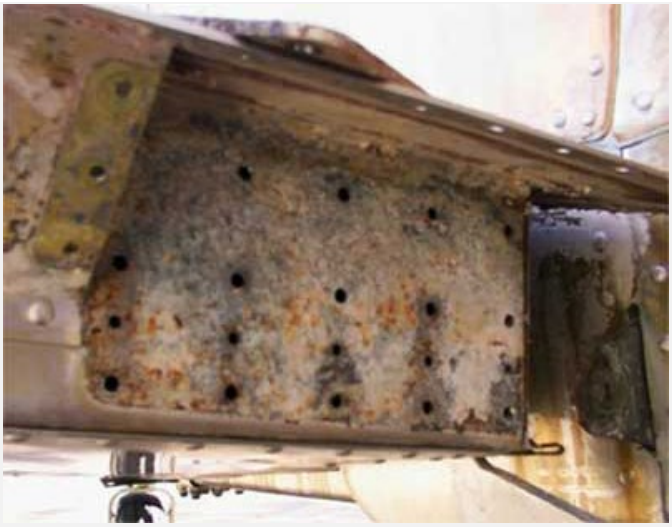

Photo of typical attach fitting corrosion

Enquiries

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