

AWB 61-1 Issue 1, Hamilton Sunstrand propellers Cracked blade retaining rings P/N 794345

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Effectivity

Hamilton Sundstrand 14SF-5 and 14SF-7 Propellers.

Purpose

The purpose of this Bulletin is to advise all aircraft owners, operators and maintenance organisations that notification has been received of service difficulty reports confirming cracked blade retaining rings, Part No. 794345.

Background

CASA has received notification of two Service Difficulty Reports (Transport Canada SDA No. AV-2001-01) describing cracking of the blade retaining ring halves (P/N. 794345) on Hamilton Sundstrand (formally Hamilton Standard) 14SF-5 and 14SF-7 propellers. These propellers are installed on ATR-42 and DHC-8-100 aircraft, respectively.

The first cracked retaining ring was detected during a routine blade removal. The crack was 2mm long and 1mm deep and emanated from the corner of the bore of the rear attachment bolt hole and run parallel to the outer top and bottom surfaces. Analysis of the part indicated that the crack was not service induced and that the likely cause was an anomaly introduced during the manufacturing process.

The same operator submitted a second report identifying a crack approximately 2mm long emanating from the retaining ring forward bolthole.

Recommendation

CASA recommends a visual inspection in the area of the bolthole bores of all retaining rings (P/N 794345)

installed in Hamilton Sundstrand Model 14SF-5 and 14SF-7 propellers.

If a defective retaining ring is found installed in an aircraft or in existing aircraft stock intended for installation on an aircraft a Major Defect Report should be submitted pursuant to regulation 51A of CAR 1988.