

# Continuing Airworthiness Notice – 78-001



## R44 Engine Exhaust - Cabin Heater System Failures

2 September 2011

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Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91.

**The contents of this notice are ADVISORY ONLY and are NOT MANDATORY.**

CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

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### Applicability:

All Robinson R44 series helicopters.

### Purpose:

This Continuing Airworthiness Notice (CAN) is to alert R44 series helicopter operators and maintainers of potential engine exhaust system failures in the area of the cabin heater shroud assembly.

### Background:

The CAA is aware of reports of finding collapsed engine exhaust mufflers inside the cabin heater shroud and severely burnt cabin heater hoses on R44 helicopters. With the cabin heater selected the damaged muffler can introduce carbon monoxide directly into the cabin.

Operators investigating exhaust muffler collapse incidents have found certain contributing factors which may cause muffler collapse. These factors include magneto timing which may be outside manufacturer specified limits, the mixture arm at the fuel control unit may be binding and not provide full travel resulting in a lean fuel/air mixture, or the exhaust muffler cooling inlet rigging may be incorrect.

### Recommendation:

The CAA recommends operators and maintainers of R44 series helicopters review CASA Airworthiness Bulletin (AWB) 78-001 issue 1, dated 11 August 2011 and comply with the recommended actions to mitigate associated problems which are considered to be contributing factors to muffler collapse.

A copy of AWB 78-001 issue 1 can be obtained from the CASA Website (Airworthiness Bulletins page) at [http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC\\_90516](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_90516)

### Enquiries:

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