Continuing Airworthiness Notice – 28-005

Robinson R44 Hose Unions at Fuel Control

06 November 2008

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.

Applicability:

All Robinson R44 II aircraft fitted with a Lycoming IO-540 series engine.

Purpose:

This Continuing Airworthiness Notice (CAN) alerts operators of possible fuel leaks at the fuel control from fuel hose unions due to insufficient torque which could result in a catastrophic fire if leaking fuel comes into contact with a hot engine and exhaust components.

Background:

This CAN is prompted by a report of finding a significant fuel leak from the union of inlet fuel hose P/N B283-10 at the fuel control of a Lycoming IO-540 series engine fitted to a Robinson R44 II aircraft. The leaking fuel came into contact with parts of the hot engine and was discovered by the pilot after landing. The leak was attributed to the fuel inlet hose union being insufficiently torqued. The fuel inlet hose P/N B283-10 is connected to the Precision Airmotive fuel control P/N 2576630-4 at tee connector P/N 6600-04-04-04SS. The tee connector is covered by a heat wrap which must be removed to facilitate inspection of the hose unions.

Another R44 II aircraft was inspected during maintenance and the same inlet hose union was found to be insufficiently torqued.

Recommendation:

The CAA recommends that aircraft maintainers pay particular attention to the correct tightening procedures and torque value when tightening fuel hose unions. At the next scheduled maintenance inspection remove the heat wrap from the tee connector at the fuel control P/N 2576630-4 and check the tighten torque of the fuel fittings and unions of the fuel inlet hose P/N B283-10 and fuel return hose P/N B283-11.

AD action is not considered necessary at this time. Robinson Helicopter intends amending the R44 II maintenance instructions to specifically include an inspection of the fuel fittings at the fuel control unit.

Enquiries:

All other enquires regarding this CAN should be made to:

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