
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Robinson R22 Series Helicopters**AD/R22/53****Main Rotor Blades****2/2006**

Applicability: R22 helicopters fitted with P/N A016-2 Main Rotor Blades.

Requirement: 1. Remove and replace P/N A016-2 Main Rotor Blades with P/N A016-4 Main Rotor Blades.
2. P/N A016-2 blades are not to be returned to service under any circumstances.

Accomplishment of this Airworthiness Directive is terminating action for the requirements of AD/R22/31 Amdt 11, which will be cancelled after 1 April 2006.

Compliance: 1. Prior to 1 April 2006.
2. After 1 April 2006.

This Airworthiness Directive becomes effective on 16 February 2006.

Background: There have been several accidents in Australia and overseas caused by failure of the Part Number A016-2 main rotor blade. The subsequent investigations showed that the design of the blade is not tolerant to certain environmental conditions that may allow moisture ingress and corrosion pits to develop in the inboard spar/root fitting attachment bolt hole. The corrosion pits can allow fatigue cracks to develop which may proceed to rapid failure of the main rotor blade within a few flights, with subsequent loss of the helicopter. This AD requires replacement of the P/N A016-2 main rotor blades with new improved design blades P/N A016-4.



Neville Probert
Delegate of the Civil Aviation Safety Authority

20 December 2005