
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.

Eurocopter SA 360 and SA 365 (Dauphin) Series Helicopters

AD/DAUPHIN/92

Tail Rotor Pitch Control Shaft

11/2007

Applicability: Eurocopter SA 365 N1, AS 365 N2 and AS 365 N3 helicopters, all serial numbers, equipped with an aluminium Tail Rotor Blade Pitch Control Shaft with Part Number (P/N) 365A33.6161.20 or 365A33.6161.21.

Requirement:

1. Replace all P/N 365A33.6161.20 and 365A33.6161.21 aluminium Tail Rotor Blade Pitch Control Shafts with a steel P/N 365A33.6214.20 shaft in accordance with Eurocopter AS365 Alert Service Bulletin (ASB) 01.00.59.
2. Do not install P/N 365A33.6161.20 and 365A33.6161.21 aluminium Tail Rotor Blade Pitch Control Shafts on any helicopter.


Note: EASA AD 2007-0220 dated 13 August 2007 refers.

Compliance:

1. Before 31 December 2007.
2. From 31 December 2007.

This Airworthiness Directive becomes effective on 25 October 2007.

Background: During a recent incident, the pilot of a Model AS 365 N2 helicopter noticed loss of control of the Tail Rotor. A decision was made to continue the flight to the nearest airport and an uneventful run-on landing was made. Subsequent investigation showed that the Tail Rotor Blade Pitch Control Shaft P/N 365A33.6161.21 had broken. This failure occurred in the main section of shaft sliding area, which appeared to have been damaged by peening. For that reason the origin of the crack, which developed under fatigue loading, could not be determined. Most likely, accidental damage (e.g. shock impact) is thought to have caused the initiation of a crack in the hard tungsten-carbide deposit on the shaft. Damage of this kind cannot be detected through normal inspection methods. This condition, if not corrected, could lead to further cases of control shaft failure and consequent loss of tail rotor control. EUROCOPTER has developed a steel control shaft, P/N 365A33.6214.20, that is less sensitive to shock-induced damage. For this reason, this AD requires replacement of the affected aluminium control shafts.



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Delegate of the Civil Aviation Safety Authority

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