On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/S-PUMA/51 and issues the following 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 AS 332 (Super Puma) Series Helicopters**

**AD/S-PUMA/51 Tail Rotor Hub Bearing 8/2005**

**Amdt 1**

**Applicability:** Eurocopter AS 332 helicopter versions C, C1, L and L1.

**Requirement:**

1. Inspect the Tail Rotor Hub (TRH) boot for hydraulic fluid leakage.
   
   a. If there is evidence of hydraulic fluid leakage from the TRH boot as detailed in Requirement 1 of this Directive, replace the bearing at the TRH pitch control rod as per the instructions described in paragraph 2B of EUROCOPTER AS 332 Alert Service Bulletin (ASB) 64.00.31 or later approved revision.

   b. If no evidence of hydraulic fluid from the TRH boot is discovered, no further action is required.

2. Inspect aircraft records to identify when the tail servo control was replaced following indicated leakage from the TRH boot, and if the bearing of the TRH pitch control rod was not replaced, replace the bearing of the TRH pitch control rod as per the instructions described in paragraph 2B of EUROCOPTER AS 332 ASB 64.00.31 or later approved revision.


**Compliance:**

1. Unless previously accomplished, within 10 flight hours after the effective date of this AD, and then repetitively, at intervals not to exceed 10 flight hours.
   
   a. Within 25 flight hours from the time that the leakage is discovered as detailed in Requirement 1 of this Directive.

   b. Not applicable.

2. For a TRH that has logged less than 200 flight hours since the tail servo control was replaced, within 20 flight hours after the effective date of this Directive.

   For a TRH that has logged more than 200 flight hours since the tail servo control was replaced, no further action is required.

   For a TRH held as spares, before installation in a helicopter.
Eurocopter AS 332 (Super Puma) Series Helicopters

AD/S-PUMA/51 Amdt 1 (continued)

This Amendment becomes effective on 4 August 2005.

Background: The current amendment makes editorial changes to the original issue, with no change to the technical content.

Hydraulic fluid leakage from the tail rotor servo control caused a failure of the TRH bearing. The washing out of the bearing grease caused the bearing to fail and subsequent failure of the yaw control system. This Directive requires regular inspections of the TRH to detect any hydraulic leakage and allows for removal of any bearings from service, which are contaminated, before the bearing fails.

The original issue of this Airworthiness Directive became effective on 3 March 2004.

James Coyne
Delegate of the Civil Aviation Safety Authority

18 June 2005