AIRWORTHINESS DIRECTIVE

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/EC 120/16 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 EC 120 Series Helicopters

AD/EC 120/16 Engine Controls - Twist Grip Assembly 13/2008 Amdt 1

Applicability: Eurocopter (formerly Eurocopter-France) EC 120 B helicopters, all serial numbers (S/N) fitted with:

- Right Hand (RH) twist grip part number (P/N) C761A2024101 with S/N: 336 to 338 (inclusive), 342 to 353 (inclusive), 356 to 364 (inclusive) and 367 to 401 with no letter “V” marked on the lever base; and
- P/N C761A2024102, P/N C761A2024103 or P/N C761A2024104 with S/N below 418 with no letter “V” marked on the lever base.
- Left Hand (LH) twist grip P/N C761A2025102, P/N C761A2025103 or P/N C761A2025104 with S/N below 382 with no letter “V” marked on the lever base.

Requirement:

1. On helicopters having already accomplished EUROCOPTER EC120 Service Bulletin (SB) No. 76-005 Revision 0:

   Identify the collective lever in accordance with paragraph 2.B.3. of EUROCOPTER EC 120 ASB No. 76A005 Revision 1.

2. On helicopters not having already accomplished EUROCOPTER EC120 SB No. 76-005 Revision 0:

   a. Remove the drive tube on:

      RH twist grips assemblies P/N C761A2024101, P/N C761A2024103 or P/N C761A2024104, S/N: 336 to 338 (inclusive), 342 to 353 (inclusive), 356 to 364 (inclusive), and 367 to 401(inclusive), having no letter “V” marked on the lever base; and

      LH twist grips P/N C761A2025103 or P/N C761A2025104, S/N 371 to 381 (inclusive), having no letter “V” marked on the lever base in accordance with paragraph 2.B of EUROCOPTER EC120 SB No. 76-005 Revision 1.

   b. In autorotation training, the manoeuvre must be carried out until the helicopter touches down (full autorotation).

Eurocopter EC 120 Series Helicopters

AD/EC 120/16 Amdt 1 (continued)

c. Do not install a twist grip having P/N and S/N as per Requirement 2a of this AD on a helicopter, unless the drive tube has been replaced and the collective lever marked in accordance with paragraphs 2.B.2. and 2.B.3. of EUROCOPTER EC 120 ASB No. 76A005 Revision 1.

3. Do not install on a helicopter twist grip assemblies listed below not having accomplished EUROCOPTER EC120 SB No. 76-005 Revision 1, unless the correct bonding strength of the control pinion on the pilot and co-pilot collective lever drive tubes has been checked in accordance with paragraph 2.B.4 of EUROCOPTER EC 120 ASB No. 76A006 Revision 2.

   P/N C761A2024102 and C761A2024103 and C761A2024104 with S/N below 418; or

   P/N C761A2025102 and C761A2025103 and C761A2025104 with S/N below 382.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Note: EASA AD 2008-0185 dated 8 October 2008 refers. This AD supersedes EASA AD 2006-0253.

Compliance: For Requirement 1 - Within 9 months after the effective date of this AD, unless previously accomplished.

For Requirement 2.a. - Within 110 flight hours or 9 months after the effective date of this AD, whichever occurs first, unless previously accomplished.

For Requirement 2.b. - Pending replacement of the twist grip drive tube as per Requirement 2.a. of this AD.

For Requirement 2.c. - From the effective date of this AD.

For Requirement 3 - From the effective date of this AD.

This Amendment becomes effective on 18 December 2008.

Background: This Airworthiness Directive is in response to a twist grip failure experienced during an autorotation training procedure during which the engine remained at idle rating although the twist grip had been turned back to the flight position. Analysis has revealed failure of the twist grip drive tube and control pinion bonded attachment due to non-compliant preparation of the bonding surfaces on the two components.

Further investigation has revealed other twist grip batches potentially affected by non appropriate surface preparation prior to bonding.

Eurocopter EC 120 Series Helicopters

AD/EC 120/16 Amdt 1 (continued)

Over time, such surface preparation creates a risk of failure of the bonded attachment of the drive tube and thus a risk of losing in flight the engine fuel flow control function, which may constitute an unsafe condition.

This amendment ensures that the twist grips correct bonding strength of the control pinion on the pilot and co-pilot collective lever drive tubes is achieved in accordance with the latest approved data.

The original issue of this AD became effective on 26 October 2006.

James Coyne
Delegate of the Civil Aviation Safety Authority

6 November 2008