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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (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.

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### Airbus Industrie A319, A320 and A321 Series Aeroplanes

**AD/A320/158**

**Flight Controls - Spoiler Actuators**

**10/2004**

**Applicability:** AIRBUS A318, A319, A320 and A321 aircraft, fitted with GOODRICH spoiler actuators part number (PN) 31077-050, -060, -070, -110 or -112.

**Requirement:** 1. Identify the spoiler actuator PN for:

- position No 2, 3, 4, 5 for A318 and A319,
- position No 2 for A320,
- position No 2, 3 and 4 for A321;

and if necessary, apply the corrective actions in accordance with the instructions of the AIRBUS Service Bulletin (SB) A320-27-1158 or later revisions approved by the French DGAC.

2. Identify the spoiler actuator PN for:

- position No 1 for A318 and A319,
- position No 1 and 3 for A320 not incorporating AIRBUS modification 26335 and on which SB A320-27-1115 has not been accomplished,
- position No 1, 3, 4 and 5 for A320 incorporating AIRBUS modification 26335 or on which SB A320-27-1115 is accomplished,
- position No 1 and 5 for A321;

and if necessary, apply the corrective actions in accordance with the instructions of SB A320-27-1159 or later revisions approved by the French DGAC.

*Note: DGAC AD F-2004-122 refers.*

**Compliance:** For Requirement 1: Unless already accomplished, before July 31, 2005.

For Requirement 2. Unless already accomplished, before January 31, 2007.

This Airworthiness Directive becomes effective on 30 September 2004.

**Airbus Industrie A319, A320 and A321 Series Aeroplanes**

AD/A320/158 (continued)

Background: Following an in-flight loss of blue hydraulic system, maintenance staff identified on an A320 that right hand Spoiler Actuator No 3 had suffered a body separation. Analysis has shown that the piston rod bearing was broken. Dimensional analysis of the piston rod bearing seal groove radii has shown that all radii were smaller than the drawing specification. This malformation of the corner radii could result in a reduction in the fatigue life of the component.

The root cause of this defect is due to an incorrect manufacturing process. A spoiler piston rod bearing breakage experienced during aircraft operation can lead to the associated hydraulic system loss and spoiler extension to the zero hinge moment in flight. The spoiler extension generates bank angle and consequently modify the A/C trajectory. The critical consequences are identified for the final approach phase, the magnitude dependant upon the position of the failed spoiler.



Bernard Malcolm Hole  
Delegate of the Civil Aviation Safety Authority

30 July 2004