	AIRWORTHINESS DIRECTIVE No F-2003-141 R1	Distribution: B	Issue date: March 17, 2004	Page : 1/2
Direction générale de l'aviation civile France GSAC publication	This Airworthiness Directive is published by the DGAC: [X] on behalf of EASA, the Primary Airworthiness Authority for the affected product. [ ] as the Registration Airworthiness Authority for the affected aircraft..		*Translation of « Consigne de Navigabilité » of same number.* *In case of difficulty, reference should be made to the French issue.*	
	No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive, unless otherwise agreed with the Authority of the State of Registry.			

Corresponding foreign Airworthiness Directive(s): **Not applicable**	Airworthiness Directive(s) replaced: **2003-141 original issue**
Person in charge of airworthiness: **AIRBUS**	Type(s): **A340-200/-300 aircraft**
Type certificate(s) No. **183** TCDS No **183**	
ATA chapter: **27**	Subject: **Flight controls - Flaps - Replacement of rotary actuators Types A and B**

1. EFFECTIVITY:

AIRBUS A340 aircraft, models -211, -212, -213, -311, -312 and -313, all serial numbers, except for those on which AIRBUS modification 50044 has been embodied in production or AIRBUS Service Bulletin (SB) A340-27-4111 has been embodied in service.

Note : Revision 1 of this Airworthiness Directive (AD) does not require additional work for aircraft already modified in accordance with instructions given in the SB AIRBUS A340-27-4111 at original issue or Revision 01.

2. REASONS:

Corrosion at the splines has been observed on a certain number of flap rotary actuators Types A and B PN 6975XXXXX returned after service.

An improved protection of the splines was introduced on in-service rotary actuators without success.

The corrosion, which reduces the fatigue strength, is due to the loss of the surface protection following axial and radial movements between the end cover and the splines of the lever under operational loads.

The flap control system uses two load paths. In case of loss of the first load path, which could occur subsequent to a rupture of the rotary actuator lever, the loads would be transferred to the second load path. The loss of the second load path could then follow due to the transfer of the loads to the second flap rotary actuator which could also be corroded like the first actuator.

The loss of the two load paths may lead to the loss of the flap surface.

To avoid fatigue failures of the lever of the rotary actuator in service, the limit life of rotary actuators Types A and B is reduced by this AD.

Revision 1 of this AD informs the operators of the existence of newly certified rotary actuators PNs and gives details on the compliance times in paragraph 3.

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3. MANDATORY ACTIONS AND COMPLIANCE TIMES:

The following measures are rendered mandatory from the effective date of this AD at original issue:

Unless already accomplished,

At latest within 18,000 Flight Cycles (FC) or 12 years since the first flight of the aircraft, whichever occurs first, and provided that the rotary actuators have never been removed from the aircraft, replace the rotary actuators Types A and B PN 6975XXXXX by actuators:

- PN 2240A0000-01 or PN 2240K0000-01 for Type A,

and

- PN 2241A0000-01 or PN 2241K0000-01 or PN 2241L0000-01 for Type B,

in accordance with the instructions of AIRBUS SB A340-27-4111 Revision 2.

If any rotary actuator has been replaced since the first flight of the aircraft, it is the operator's responsibility:

- to check the history of the FC or of the calendar potential accumulated by the rotary actuators installed on the aircraft,

and

- to apply the above mandatory actions at latest within 18,000 FC or 12 years since the first flight of the rotary actuators installed on the aircraft, whichever occurs first.

4. REFERENCE PUBLICATIONS:

AIRBUS Service Bulletin A340-27-4111
(Any later approved Revision of this SB is acceptable).

5. EFFECTIVE DATES:

Original issue : April 12, 2003
Revision 1 : March 27, 2004.

6. REMARK:

For questions concerning the technical contents of this AD's requirements, contact:

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7. APPROVAL:

This AD Revision is approved under EASA reference No 2004-2119 dated March 09, 2004.