

<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2013-0144R1</b></p> <p><b>Date: 27 August 2013</b></p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>	
<p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
<p><b>Design Approval Holder's Name:</b> AIRBUS</p>	<p><b>Type/Model designation(s):</b> A330 and A340 aeroplanes</p>	
<p>TCDS Numbers: EASA.A.004 and EASA.A.015</p>		
<p>Foreign AD: Not applicable</p>		
<p>Revision: This AD revises EASA AD 2013-0144 dated 15 July 2013.</p>		
<b>ATA 27</b>	<b>Flight Controls – Trimmable Horizontal Stabilizer Actuator – Identification / Replacement</b>	
<p>Manufacturer(s):</p>	<p>Airbus (formerly Airbus Industries)</p>	
<p>Applicability:</p>	<p>Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers (MSN). Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN.</p>	
<p>Reason:</p>	<p>During endurance qualification tests on A380 Trimmable Horizontal Stabilizer Actuator (THSA), a partial loss of the no-back brake (NBB) efficiency was experienced. Due to THSA design similarity on the A330/A340 fleet, a similar partial loss of the NBB efficiency was identified on THSA Part Number (P/N) 47147, installed on A330-300 and A340-200/-300 aeroplanes, and on THSA P/N 47172, installed on A330-200/-300 and A340-200/-300 aeroplanes.</p> <p>Investigation results concluded that this particular malfunction was due an ageing/endurance issue of the surfaces of the NBB carbon friction disks, leading to a partial loss of braking efficiency in some specific aerodynamic load conditions.</p>	

	<p>This condition, if not detected and corrected and in conjunction with the power gear train not able to keep the ball screw in its last commanded position, could lead to uncommanded movements of the THS, possibly resulting in the loss of control of the aeroplane.</p> <p>To address this potential unsafe condition, EASA issued AD 2013-0144 to require replacement of each THSA that has exceeded 16 000 flight cycles (FC) in-service, to be sent in shop for NBB carbon disk replacement.</p> <p>Since that AD was issued, a need for clarification has been demonstrated, regarding the identification of the THSA 'affected' by this requirement.</p> <p>For this reason, EASA AD 2013-0144 is revised, confirming that the AD only affects those THSA identified by Part Number (P/N) in Airbus Alert Operator Transmission (AOT) A27L005-13. In addition, a note has been added to make clear that the life limits as specified in the current revision of ALS Part 4 are still relevant for the affected THSA, as applicable to aeroplane model and THSA P/N. This AD addresses the life limit for the NBB installed on the THSA, not the life limit for the THSA itself.</p> <p>A further reduction of the life limit of the NBB, probably down to 12 000 FC, is under evaluation by EASA and further actions are likely to follow for the THSA that have exceeded that limit in service. In that context and to assess the operational status of the THSA of the A330-200/-300 and A340-200/-300 fleet, this AD also requires identification of the THSA, collection of operational data and reporting the results to Airbus.</p>
Effective date:	<p>Revision 1: 03 September 2013</p> <p>Original issue: 31 July 2013</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>Note 1: The THSA affected by the requirements of paragraphs (1), (2), (3) and (4) of this AD are only those identified by P/N in Airbus AOT A27L005-13.</p> <p>Note 2: For the purpose of this AD, a serviceable THSA is a THSA having a P/N as identified in Airbus AOT A27L005-13 and having accumulated less than 20 000 FC since first installation on an aeroplane, or a THSA with a different P/N, not affected by the requirements of this AD.</p> <p>Note 3: The life limits as specified in the current revision of ALS Part 4 are still relevant for the affected THSA, as applicable to aeroplane model and THSA P/N.</p> <p>(1) Within 30 days after 31 July 2013 [the effective date of the original issue of this AD], identify each THSA that has accumulated or exceeded 10 000 FC since first installation on an aeroplane, and report the collected operational life data to Airbus, in accordance with the instructions of Airbus Alert Operator Transmission (AOT) A27L005-13.</p> <p>(2) Based on the data collected as required by paragraph (1) of this AD, depending on the FC accumulated by an affected THSA, within the compliance time as specified in Table 1 of this AD, as applicable, replace each affected THSA with a serviceable one in accordance with the instructions of Airbus AOT A27L005-13.</p>

Table 1	
<b>FC accumulated by the THSA (on 31 July 2013, the effective date of the original issue of this AD) since first installation on an aeroplane</b>	<b>Compliance time</b>
20 000 FC or more	within 1 500 FC or 12 months, whichever occurs first after 31 July 2013 [the effective date of the original issue of this AD]
16 000 FC or more, but less than 20 000 FC	A330: within 4 000 FC or 30 months, whichever occurs first after 31 July 2013 [the effective date of the original issue of this AD] A340: within 3 000 FC or 30 months, whichever occurs first after 31 July 2013 [the effective date of the original issue of this AD]
Less than 16 000 FC	As required by paragraph (3) and (4) of this AD.

(3) Not later than 31 July 2014, remove each affected THSA from service having accumulated or exceeded 20 000 FC since first installation on an aeroplane. After 31 July 2014, do not install on any aeroplane a THSA having accumulated or exceeded 20 000 FC since first installation on an aeroplane.

(4) Not later than 31 January 2016, remove each affected THSA from service having accumulated or exceeded 16 000 FC since first installation on an aeroplane. After 31 January 2016, do not install on any aeroplane a THSA having accumulated or exceeded 16 000 FC since first installation on an aeroplane.

Ref. Publications:	Airbus AOT A27L005-13 dated 11 July 2013. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAL; E-mail: <a href="mailto:airworthiness.A330-A340@airbus.com">airworthiness.A330-A340@airbus.com</a>.</li> </ol>