


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2013-0274</b></p> <p><b>Date: 15 November 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 Number:</p>	<p>EASA.A.04, EASA.A.15</p>	
<p>Foreign AD:</p>	<p>Not applicable</p>	
<p>Supersedure:</p>	<p>None</p>	
<p><b>ATA 29</b></p>	<p><b>Hydraulic Power – Ram Air Turbine Hydraulic Pumps – Identification / Replacement</b></p>	
<p>Manufacturer(s):</p>	<p>Airbus (formerly Airbus Industrie)</p>	
<p>Applicability:</p>	<p>Airbus A330-201, A330-202, A330-203, A330-223, A330-243, A330-223F, 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).</p> <p>Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN.</p>	
<p>Reason:</p>	<p>During a production flight test of an A330-300 aeroplane, the Ram Air Turbine (RAT) did not pressurize the green hydraulic system. Investigation revealed that the impeller drive (hex) shaft had a reduced length of engagement with the pump drive shaft. This caused the impeller drive shaft to disengage from the pump and disconnect the impeller. It was determined that the disconnection was the result of internal hex dimensions on the pump impeller shaft, which had been changed in a manufacturing drawing. From the investigation analysis, it was possible to identify a list of affected parts.</p> <p>This condition, if not detected and corrected, could lead to the loss of impeller function and RAT pump pressurization capability, possibly resulting, in case of total engine flame out, to the loss of control of the aeroplane.</p> <p>To address this unsafe condition, a new design RAT pump shaft has been developed with a decreased hexagonal shaft housing depth, which increases the hexagonal drive shaft engagement in the impeller shaft to carry the impeller torque. Airbus issued Service Bulletin (SB) A330-29-3122, SB A340-29-4093 and SB A340-29-5021 to provide instructions for in-service replacement of the</p>	

	<p>affected RAT hydraulic pumps, or re-identification of the RAT pump and complete RAT module, as applicable.</p> <p>For the reasons described above, this AD requires identification and replacement or re-identification of all affected RAT hydraulic pumps on A330 and A340-200/300 aeroplanes, and replacement of all affected RAT modules on A340-500/-600 aeroplanes.</p>								
Effective Date:	29 November 2013								
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) For A330 and A340-200/300 aeroplanes, within 36 months after the effective date of this AD, accomplish the following actions, as applicable:</p> <p>(1.1) Identify the Part Number (P/N), Serial Number (S/N) and standard (through the mod-dots) of the RAT pump, RAT module, RAT actuator and RAT lower gearbox assembly.</p> <p>A review of aeroplane maintenance records is acceptable to make these identifications, provided that the P/N, S/N and standard of the affected components can be conclusively determined from that review.</p> <p>(1.2) If the RAT hydraulic pump S/N is included in the affected batch (see Note 1 of this AD), accomplish the preliminary corrective actions (see Note 2 of this AD) in accordance with the instructions of Airbus SB A330-29-3122, or SB A340-29-4093, as applicable to aeroplane type, replace the RAT hydraulic pump and re-identify the P/N of the RAT module in accordance with the instructions of Airbus SB A330-29-3122 or SB A340-29-4093, as applicable to aeroplane type.</p> <p>Note 1: The batch of affected RAT hydraulic pumps is defined in Hamilton Sundstrand SB ERPS06M-29-19.</p> <p>Note 2: The preliminary actions consist of the balance weight screw replacement, the actuator coil spring modification, the actuator modification and/or the inspection of the anti-stall valve, depending the result of the RAT component identification.</p> <p>(1.3) If the RAT hydraulic pump S/N is not included in the affected batch, re-identify the P/N of the RAT hydraulic pump and of the RAT module in accordance with the instructions of Airbus SB A330-29-3122 or SB A340-29-4093, as applicable to aeroplane type.</p> <p>(2) For A340-500/-600 aeroplanes, within 36 months after the effective date of this AD, replace the RAT module (P/N as listed in Table 1 of this AD) in accordance with the instructions of Airbus SB A340-29-5021.</p> <p style="text-align: center;">Table 1 – Parts not to be installed after modification</p> <table border="1" data-bbox="568 1588 1442 1951"> <thead> <tr> <th data-bbox="568 1588 986 1668">Part Name (affected aeroplanes)</th> <th data-bbox="986 1588 1442 1668">P/N</th> </tr> </thead> <tbody> <tr> <td data-bbox="568 1668 986 1776">Complete RAT module (A330 and A340-200/-300)</td> <td data-bbox="986 1668 1442 1776">766351, 768084, 770379, 770952, 770952A, 770952B, 1702934, 1702934A and 1702934B.</td> </tr> <tr> <td data-bbox="568 1776 986 1861">RAT hydraulic pump (A330 and A340-200/-300)</td> <td data-bbox="986 1776 1442 1861">5909522 (Parker P/N 4207902).</td> </tr> <tr> <td data-bbox="568 1861 986 1951">Complete RAT module (only A340-500/-600)</td> <td data-bbox="986 1861 1442 1951">772722D, 772722E, 772722F and 772722G</td> </tr> </tbody> </table>	Part Name (affected aeroplanes)	P/N	Complete RAT module (A330 and A340-200/-300)	766351, 768084, 770379, 770952, 770952A, 770952B, 1702934, 1702934A and 1702934B.	RAT hydraulic pump (A330 and A340-200/-300)	5909522 (Parker P/N 4207902).	Complete RAT module (only A340-500/-600)	772722D, 772722E, 772722F and 772722G
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	<p>(3) An aeroplane on which Airbus Modification (Mod.) 202537 has been embodied in production is not affected by the requirements of paragraph (1) of this AD, provided it can be determined that, since aeroplane first flight, no RAT hydraulic pump or RAT module, having a P/N as listed in Table 1 of this AD, has been installed on that aeroplane.</p> <p>(4) After modification of an aeroplane as required by paragraph (1) or (2) of this AD, as applicable, do not install any of the parts as specified in Table 1 of this AD on that aeroplane, as applicable.</p> <p>(5) For A330 and A340-200/300 aeroplanes, modification of an aeroplane as required by this AD also constitutes compliance with the requirements of EASA AD 2011-0197, EASA AD 2011-0204R1 for that aeroplane.</p> <p>(6) For A340-500/600 aeroplanes, modification of an aeroplane as required by this AD also constitutes compliance with the requirements of EASA AD 2011-0204R1 for that aeroplane.</p>
Ref. Publications:	<p>Airbus SB A330-29-3122 original issue, dated 25 October 2012.</p> <p>Airbus SB A340-29-4093 original issue, dated 25 October 2012.</p> <p>Airbus SB A340-29-5021 original issue, dated 02 October 2012.</p> <p>Hamilton Sundstrand SB ERPS06M-29-19 original issue, dated 6 August 2012.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>
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. This AD was posted on 04 October 2013 as PAD 13-154 for consultation until 01 November 2013. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</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>