


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2011-0039</p> <p>Date: 08 March 2011</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 EC 1702/2003, Part 21A.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>Type Approval Holder's Name :</p> <p>Austro Engine GmbH</p>	<p>Type/Model designation(s) :</p> <p>E4 engines</p>
TCDS Number :	EASA.E.200
Foreign AD :	Not applicable.
Supersedure :	This AD supersedes EASA Emergency AD 2010-0206-E dated 08 October 2010.
ATA 73	Engine Fuel & Control – High Pressure Fuel Pump – Inspection / Replacement
Manufacturer(s):	Austro Engine GmbH
Applicability:	<p>Model E4 engines, all serial numbers.</p> <p>These engines are known to be installed on, but not limited to, Diamond Aircraft Industries DA 40 NG and DA 42 NG aeroplanes.</p>
Reason:	<p>Several power loss events have been reported, due to rail pressure control failures. Analyses have shown that high pressure (HP) fuel pumps P/N E4A-30-100-000 failed as a result of pressure oscillations in the fuel supply line.</p> <p>This condition, if not detected and corrected, could lead to further cases of power loss or even in-flight engine shutdown, possibly resulting in loss of control of the aeroplane.</p> <p>To address this situation, Austro Engine had introduced an additional inspection of the affected HP fuel pumps. As an interim measure, pending the availability of a final solution, EASA Emergency AD 2010-0206-E was issued to require repetitive inspections of the HP fuel pump supply line(s) to detect fuel pressure oscillations and, if this exceeded a certain value, replacement of the affected HP fuel pump.</p> <p>Austro Engine has now introduced a new HP fuel pump P/N E4A-30-200-000 that is no longer affected by pressure oscillations in the fuel supply line.</p> <p>For the reasons described above, this AD retains the requirements of EASA AD 2010-0206-E, which is superseded, and requires replacement of all P/N E4A-30-100-000 HP fuel pumps with the new P/N E4A-30-200-000 pumps.</p>

Effective Date:	22 March 2011						
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Initially at the time indicated in Table 1 of this AD, as applicable, and thereafter intervals not to exceed 55 flight hours (FH), inspect the HP fuel pump in accordance with the instructions of Austro Engine Mandatory Service Bulletin (MSB) MSB-E4-009 and the associated Austro Engine Work Instruction (WI) WI-MSB-E4-009.</p> <p>Note: AD 2010-0206-E required the inspection to be accomplished at each scheduled 50 FH inspection. As this inspection has been removed from the engine Maintenance Manual AE 300 E4.08.04, the interval has been amended in this new AD.</p> <p style="text-align: center;">Table 1</p> <table border="1" data-bbox="572 692 1426 1039"> <thead> <tr> <th data-bbox="572 692 1008 848">Time accumulated by the HP fuel pump [on 12 October 2010, the effective date of AD 2010-0206-E] since new:</th> <th data-bbox="1008 692 1426 848">Compliance Time:</th> </tr> </thead> <tbody> <tr> <td data-bbox="572 848 1008 972">45 FH or more</td> <td data-bbox="1008 848 1426 972">Within 10 FH after 12 October 2010 [the effective date of AD 2010-0206-E]</td> </tr> <tr> <td data-bbox="572 972 1008 1039">Less than 45 FH</td> <td data-bbox="1008 972 1426 1039">Before accumulating 55 FH</td> </tr> </tbody> </table> <p>(2) If, during any inspection as required by paragraph (1) of this AD, the fuel pressure oscillation exceeds the value as specified in Austro Engine MSB-E4-009, before next flight, replace the HP fuel pump with a new unit in accordance with the instructions of Austro Engine MSB-E4-009.</p> <p>(3) Unless accomplished as required by paragraph (2) of this AD, within 4 months after the effective date of this AD, replace each HP fuel pump P/N E4A-30-100-000 with a new P/N E4A-30-200-000 pump, in accordance with the instructions of Austro Engine MSB MSB-E4-009/2 and the Maintenance Manual E4.08.04.</p> <p>(4) Modification of an engine as required by paragraph (3) of this AD constitutes terminating action for the repetitive inspection requirements of paragraph (1) of this AD.</p> <p>(5) After modification of an engine as required by paragraph (3) of this AD, do not install a HP fuel pump P/N E4A-30-100-000 on that engine.</p> <p>(6) After the effective date of this AD, do not install an E4 engine on an aeroplane, unless it has been determined that a P/N E4A-30-200-000 HP fuel pump is installed on that engine.</p>	Time accumulated by the HP fuel pump [on 12 October 2010, the effective date of AD 2010-0206-E] since new:	Compliance Time:	45 FH or more	Within 10 FH after 12 October 2010 [the effective date of AD 2010-0206-E]	Less than 45 FH	Before accumulating 55 FH
Time accumulated by the HP fuel pump [on 12 October 2010, the effective date of AD 2010-0206-E] since new:	Compliance Time:						
45 FH or more	Within 10 FH after 12 October 2010 [the effective date of AD 2010-0206-E]						
Less than 45 FH	Before accumulating 55 FH						
Ref. Publications:	<p>Austro Engine GmbH MSB-E4-009/2 dated 04 March 2011 and WI-MSB-E4-009 dated 07 October 2010.</p> <p>Austro Engine GmbH Maintenance Manual AE 300 E4.08.04, Revision 5, dated 27 January 2011.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>						
Remarks :	<p>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</p> <p>2. The required actions and the risk allowance have granted the issuance of</p>						

	<p>a Final AD with Request for Comments, postponing the public consultation process after publication.</p> <p>3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu</p> <p>4. For any question concerning the technical content of the requirements in this AD, please contact: Austro Engine GmbH, Rudolf-Diesel-Straße 11, A-2700 Wiener Neustadt, Austria Telephone: +43 2622 23000 2525 Fax: +43 2622 23000-2711 E-mail: service@austroengine.at</p> <p>The referenced publications can be downloaded directly from the Austro Engine GmbH Service Bulletin webpage.</p>
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