


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2009-0257</p> <p>Date: 03 December 2009</p> <p>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>Rolls-Royce plc</p>	<p>Type/Model designation(s) :</p> <p>RB211 Trent 500 series engines RB211 Trent 700 series engines</p>
<p>TCDS Number : EASA.E.042 and EASA.E.060</p>	
<p>Foreign AD : Not applicable</p>	
<p>Supersedure : None</p>	
ATA 79	Engine – Fuel System, Fuel-to-oil Heat Exchanger (FOHE) – Replacement
<p>Manufacturer(s): Rolls-Royce plc</p>	
<p>Applicability:</p>	<p>RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines.</p> <p>These engines are known to be installed on, but not limited to Airbus A330 series aircraft.</p> <p>RB211 Trent 553-61, 556-61, 556B-61, 560-61, 553A2-61, 556A2-61, 556B2-61, 560A2-61 engines.</p> <p>These engines are known to be installed on, but not limited to, Airbus A340-500/600 series aeroplanes.</p>
<p>Reason:</p>	<p>In January 2008 a Boeing 777 powered by RR Trent 800 crashed short of the runway as a result of dual loss of engine response during the final stages of approach. The investigation of the incident has established that, under certain ambient conditions, ice can accumulate on the walls of the fuel pipes within the aircraft fuel system, which can then be released downstream when fuel flow demand is increased. This released ice can then collect on the FOHE front face and limit fuel flow through the FOHE. This type of icing event was previously unknown and creates ice concentrations into the fuel system beyond those specified in the certification requirements.</p> <p>In May 2009 an EICAS surge message was set following a successful go-around manoeuvre on a single Trent 700 engine of an A330 aircraft, subsequent analysis concluded the likely cause to be temporary ice accumulation causing fuel flow restriction in the FOHE. The incident has</p>

	<p>indicated the potential susceptibility to ice blockage for Airbus aircraft in combination with RR engines that feature similar fuel systems to the Trent 800.</p> <p>This Airworthiness Directive has therefore been raised to mitigate the risk due to the potential unsafe condition of dual loss of engine response due to FOHE blockage on the A340/Trent 500 and A330/Trent 700 aircraft.</p> <p>This Airworthiness Directive instructs replacement of the FOHE with a modified standard incorporating enhanced anti-icing and de-icing performance.</p>
Effective Date:	17 December 2009
Required Action(s) and Compliance Time(s):	<p>Within 6 000 flight hours from 10 July 2009 or before 01 January 2011, whichever occurs first:</p> <p>Replace the FOHE with an FOHE modified in accordance with either:</p> <p>Rolls-Royce Alert Service Bulletin RB211-79-AG338 original issue section 3 Accomplishment Instructions for Trent 700 engines;</p> <p>or Rolls-Royce Alert Service Bulletin RB211-79-AG346 original issue section 3 Accomplishment Instructions for Trent 500 engines.</p>
Ref. Publications:	<p>Rolls-Royce Alert Service Bulletin RB211-79-AG338 original issue.</p> <p>Rolls-Royce Alert Service Bulletin RB211-79-AG346 original issue.</p> <p>The use of later approved revisions is acceptable for compliance with the requirements of this AD.</p>
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 27 October 2009 as PAD 09-129 for consultation until 24 November 2009. The Comment Response Document can be found at http://ad.easa.europa.eu/. 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. 4. For any question concerning the technical content of the requirements in this AD, please contact: Rolls-Royce plc. PO Box 31, Derby, DE24 8BJ, United Kingdom. Phone: +44 (0) 1332 242424, Fax: +44 (0) 1332 249936. Email: tech.help@rolls-royce.com or download the publication from https://www.aeromanager.com