

EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE	
	PAD No.: 11-015 Date: 04 February 2011 Note: This Proposed Airworthiness Directive (PAD) 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.	
	In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance / cancellation of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below. All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation closing date indicated.	
Type Approval Holder's Name : ROLLS-ROYCE PLC		Type/Model designation(s) : RB211-Trent 500 series engines
TCDS Number : EASA TCDS No. E.060		
Foreign AD : N/A		
Supersedure : N/A		
ATA 73	Engine – Right-Hand (RH) Fuel Manifold Assembly – Cleaning / Replacement	
Manufacturer(s):	Rolls-Royce plc	
Applicability:	RB211 Trent 500 series engines, all serial numbers. These engines are known to be installed, but not limited to Airbus A340 series aeroplanes.	
Reason:	A Trent 500 engine has been found with thermal distress of the Intermediate Pressure (IP) Turbine Nozzle Guide Vanes. The resultant investigation found the root cause to be carbon blockage of the fuel spray nozzles. The source of the carbon has been identified to be the RH fuel manifold assembly. Analysis has verified that low fuel velocity and thermal input may cause formation of carbon in a specific region of the RH fuel manifold. As advanced thermal distress of IP Turbine components may potentially result in uncontained, high energy debris release, the formation of carbon in the RH fuel manifold constitutes a potentially unsafe condition. To address and correct this unsafe condition, Rolls Royce have developed a cleaning or replacement programme of the RH fuel manifold and an optional part replacement. For the reason described above, this AD requires initial and repetitive cleaning or replacement of the RH fuel manifold assembly. It proposes as well accomplishment of a modification which constitutes terminating action for the repetitive cleaning or replacement.	

Effective Date:	[TBD: 14 days after final AD issue date]
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within the compliance time and depending on engine configurations as indicated in Table 1 of this AD, clean and inspect the RH fuel manifold assembly <u>or</u> replace the RH fuel manifold assembly with a serviceable RH fuel manifold assembly in accordance with all instructions contained in Rolls Royce Non Modification Service Bulletin 73 No. 73-AG422 Revision 1. Repeat those actions at intervals not to exceed the ones indicated in Table 1 of this AD. Note 1: the inspection following cleaning serves to provide assurance that the cleaning operation has been effective and proper. Note 2: a serviceable RH fuel manifold assembly is a part which either is new <u>or</u> has been cleaned and inspected in accordance with instructions contained in Rolls Royce Non Modification Service Bulletin 73 No. 73-AG422 Revision 1. (2) Accomplishment of Rolls Royce RB211 Propulsion System Service Bulletin Fuel and Control – Introduction of the Revised Right Hand Fuel Manifold Assembly – Modification Number 73-G547 constitutes terminating action for the repetitive cleaning or replacement requirements of this AD for that engine.
Ref. Publications:	Rolls-Royce RB211 Propulsion System Non Modification Service Bulletin (NMSB) No. 73-AG422 Revision 1. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks :	1. This Proposed AD will be closed for consultation on 04 March 2011. 2. Enquiries regarding this PAD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 3. For any question concerning the technical content of the requirements in this PAD, please contact designated Rolls-Royce representative or download the publication from your Aeromanager account at www.aeromanager.com. If you do not have a designated representative or Aeromanager account, please contact Corporate Communications at Rolls-Royce plc. PO Box 31, Derby, DE24 8BJ, United Kingdom, telephone: +44 (0) 1332 242424, or send an e-mail through http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to Airworthiness Directives

Annex to EASA PAD 11-015 – Table 1

<u>Engine Configurations at the effective date of this AD</u>		<u>Compliance Time for the Initial Cleaning and Inspection or Initial Replacement of Part</u>	<u>Intervals for the repetitive Cleanings and Inspections or Replacement of Part</u>
The engine has not been refurbished in accordance with the Engine Management Programme (EMP) issue 7 (May 2010) onwards and it cannot be suitably demonstrated that Rolls-Royce Repeater Technical Variance TV97291, July 2009 onwards, or cleaning of manifold in accordance with Overhaul Process Manual, TSD594-J Task 70-00-00-100-121 as instructed in Component Maintenance Manual, Tubes, Hoses and Ducts, October 2009 onwards, or fitment of a new RH manifold assembly or accomplishment of Rolls-Royce RB211 Propulsion System Non Modification Service Bulletin (NMSB) No. 73-AG327 has been carried out,	and the engine has accumulated a total service life of 3 200 Cycles Since New (CSN) or more	Within 200 Cycles after the effective date of this AD	
	and the engine has accumulated a total service life of greater than or equal to 2 600 CSN but less than 3 200 CSN	Within 400 Cycles after the effective date of this AD	
	and the engine has accumulated a total service life of 1 300 CSN but less than 2 600 CSN	Within 600 Cycles after the effective date of this AD	
	and the engine has not accumulated a total service life of 1 300 CSN	At the latest when the engine has accumulated 1 900 Cycles Since New (CSN)	
It can be suitably demonstrated that one of the following applies:	the engine has been refurbished in accordance with Level 3 or Level 4 as defined in issue 7 or any later issue of the Engine Management Programme (EMP) (i)	At the latest when the engine has accumulated 1300 Cycles after prior accomplishment of actions (i), (ii), (iii) or (iv)	Within 1 300 Cycles since last Cleaning and Inspection or last Replacement of RH fuel manifold assembly
	Rolls-Royce Repeater Technical Variance TV97291, July 2009 onwards, has been carried out (ii)		
	cleaning of manifold in accordance with Overhaul Process Manual, TSD594-J Task 70-00-00-100-121 as instructed in Component Maintenance Manual, Tubes, Hoses and Ducts, October 2009 onwards, has been carried out (iii)		
	fitment of a new RH manifold assembly or accomplishment of Rolls-Royce RB211 Propulsion System Non Modification Service Bulletin (NMSB) No. 73-AG327, has been carried out (iv)		