

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0137R1 Date: 10 August 2012 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.
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].	
Design Approval Holder's Name: Rolls-Royce plc.	Type/Model designation(s): Trent 1000 engines
TCDS Number:	EASA.E.036
Foreign AD:	Not applicable
Revision:	This AD revises EASA Emergency AD 2012-0137-E dated 25 July 2012.
ATA 72	Engine – Gearbox Assembly – Replacement
Manufacturer(s):	Rolls-Royce plc
Applicability:	Trent 1000-A, 1000-C, 1000-D, 1000-E, 1000-G and 1000-H engines, all serial numbers. These engines are known to be installed on, but not limited to Boeing 787 series aeroplanes.
Reason:	Transfer gearbox (TGB) failures occurred during Trent 1000 engine testing. Engineering investigation determined that the crown wheel gear of the TGB had failed due to corrosion. The latter was the result of a change in a step of the manufacturing process. It was possible to identify a list of potentially affected external gearbox assemblies. This condition, if not corrected, may result in an engine in-flight shutdown, increasing the risk of an emergency landing, possibly resulting in damage to the aeroplane and injury to the occupants. To correct this potential unsafe condition, EASA issued Emergency AD 2012-0137-E to require replacement of each affected external gearbox assembly with a serviceable part. That AD also prohibited installation of an affected external gearbox assembly. Since that AD was issued, a rework procedure has been developed that corrects the unsafe condition. For the reasons described above, paragraph (3) of this AD is revised to confirm that a reworked external gearbox assembly is eligible for installation.

Effective Date:	Revision 1: 10 August 2012 Original issue: 26 July 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Before next flight after 26 July 2012 [the effective date of the original issue of this AD], determine whether the engine is equipped with an external gearbox assembly with a part number 7000147H and a serial number from AADN000085 inclusive through AADN000127 inclusive (the affected external gearbox assemblies). (2) If, during the identification as required by paragraph (1) of this AD, it is determined that the engine is equipped with an affected external gearbox assembly, before next flight, replace the external gearbox assembly with a serviceable part in accordance with the instructions of Rolls-Royce Trent 1000 Alert Non Modification Service Bulletin (NMSB) 72-AH052. A single ferry flight is allowed with no passengers on board of the aeroplane to a location where requirements of this AD can be accomplished, provided that only one engine of the aeroplane is equipped with an affected external gearbox assembly. Note: For the purpose of this AD, a serviceable external gearbox assembly is either one that is not affected by this AD, or one that is affected but has been reworked and is marked 'DEV19097'. (3) From 26 July 2012 [the effective date of the original issue of this AD], do not install an affected external gearbox assembly on an engine or an engine with an affected external gearbox assembly on an aeroplane, unless the external gearbox assembly has been reworked and is marked 'DEV19097'.
Ref. Publications:	Rolls-Royce Trent 1000 Alert NMSB 72-AH052 dated 27 July 2012. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 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. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact your designated Rolls-Royce representative, or download the publication from your Aeromanager account at www.aeromanager.com, or contact at Rolls-Royce plc. Corporate Communications, P.O. 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.