


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2010-0244R1</p> <p>Date: 17 May 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>	
Type Approval Holder's Name :	Type/Model designation(s) :
Boeing Commercial Airplanes	737 aeroplanes
TCDS Number :	EASA.IM.A.120
Foreign AD :	None; the FAA issued Notice of Proposed Rulemaking (NPRM) Docket Nr. FAA-2010-0858 , Directorate Identifier 2010-NM-183-AD.
Revision :	This AD revises EASA AD 2010-0244 dated 26 November 2010.
ATA 78	Exhaust – Thrust Reverser Inner Wall – Inspection / Repair
Manufacturer(s):	Boeing Commercial Airplanes
Applicability:	Model 737-600, 737-700, 737-800 and 737-900 series aeroplanes, all serial numbers, if equipped with thrust reverser (TR) identified as Part Number (P/N) 315A2295-003 up to and including -202.
Reason:	<p>Many Boeing 737 operators have reported heat related damage to the inner wall of the thrust reverser (TR). Heat damage has been found at different locations of the inner wall, including damage at the top, in the area of the number 2 and 3 upper compression pads and at the lower aft edge. A flight test by the manufacturer showed that the temperatures applied to the inner walls of the TR are too high. Higher temperatures are due to hot pre-cooler air leakage between the inner wall of the TR and the insulation blankets and heat transfer through the upper compression pad area and the fire seal bracket support flange.</p> <p>This condition, if not detected and corrected, leads to deterioration of the structural integrity of the thrust reverser, possibly causing failure of the TR or loss of components, which could result in damage to the aeroplane and injury to occupants and/or persons on the ground.</p> <p>Boeing has released the following two Service Bulletins (SB), which include modifications to improve cooling, inspections and repair procedures:</p> <ul style="list-style-type: none"> - SB 737-78-1082 includes instructions to modify the thrust reverser to improve the cooling in the area of the upper compression pads and to improve the insulation. This is considered an interim improvement and arrests further heat damage. - SB 737-78-1088 provides inspection procedures for heat damage of the

	<p>thrust reverser inner walls and upper compression fittings, repair or replacement instructions, depending on findings, and re-identification of the affected TR.</p> <p>For the reasons described above, this AD requires the accomplishment of inspections of the affected thrust reversers, repair of any damage that is found, and modification and re-identification of the TR by a change of P/N.</p> <p>This AD also prohibits the installation of any unmodified TR on an aeroplane, unless the replacement TR is modified within the applicable compliance time as specified by P/N in Table 1 of the AD.</p> <p>AD 2010-0244 has been revised to allow operators the use of Boeing SB 737-78-1079 Revision 2 as an alternative method of compliance to the actions required by this AD. Boeing issued SB 737-78-1079 with the intent to contain equivalent instructions as SB 737-78-1082 and SB 737-78-1088 combined. However, the current Revision 2 of SB 737-78-1079 contains some incorrect instructions, which are expected to be corrected at the next revision. Revision 1 of this AD provides corrected additional instructions to Boeing SB 737-78-1079 Rev 2 to enable its use for compliance with this AD.</p>												
Effective Date:	<p>Revision 1: 17 May 2011</p> <p>Original issue: 10 December 2010</p>												
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within 18 months after 10 December 2010 [the effective date of the original issue of this AD], accomplish the actions as specified in Boeing SB 737-78-1082. (2) Within the compliance time specified in Table 1 of this AD, as applicable to TR installed on each aeroplane, accomplish the actions as specified in Boeing SB 737-78-1088. <p style="text-align: center;">Table 1</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Aeroplanes with TR Part Number:</th><th style="text-align: left;">Compliance Time after 10 December 2010 [the effective date of the original issue of this AD]:</th></tr> </thead> <tbody> <tr> <td>315A2295-003 through 315A2295-154</td><td>Within 30 months</td></tr> <tr> <td>315A2295-155 through 315A2295-174</td><td>Within 60 months</td></tr> <tr> <td>315A2295-175 through 315A2295-190</td><td>Within 72 months</td></tr> <tr> <td>315A2295-191 through 315A2295-198</td><td>Within 84 months</td></tr> <tr> <td>315A2295-199 through 315A2295-202</td><td>Within 96 months</td></tr> </tbody> </table> <ol style="list-style-type: none"> (3) After modification of an aeroplane as required by paragraphs (1) and (2) of this AD, installation of a TR with a P/N 315A2295 (-202 or lower suffix) on that aeroplane is only allowed if the replacement TR will be modified in accordance with the requirements and within the applicable compliance time as specified by P/N in Table 1 of this AD. (4) As an alternative to the actions required by paragraphs (1), (2) and (3) of this AD, within 18 months after 10 December 2010 [the effective date of the original issue of this AD], accomplish the actions as specified in Boeing SB 737-78-1079 Revision 2, with the following exceptions: Revision 2 of SB 737-78-1079 includes certain notes, as detailed below, which are incorrect and are expected to be removed in the next revision of SB 737-78-1079 (Revision 3): (Page 60) NOTE: Removal of Compression Pad Assembly 315A2118- 	Aeroplanes with TR Part Number:	Compliance Time after 10 December 2010 [the effective date of the original issue of this AD]:	315A2295-003 through 315A2295-154	Within 30 months	315A2295-155 through 315A2295-174	Within 60 months	315A2295-175 through 315A2295-190	Within 72 months	315A2295-191 through 315A2295-198	Within 84 months	315A2295-199 through 315A2295-202	Within 96 months
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	<p><i>21 is not necessary if the adjacent inner wall area does not show signs of heat damage because the compression pad assembly is made from Titanium.</i></p> <p>(Page 64) NOTE: Removal of Compression Pad Assembly 315A2118-22 is not necessary if the adjacent inner wall area does not show signs of heat damage because the compression pad assembly is made from Titanium.</p> <p>The removal of the affected compression pads and inspections of the underlying structures are therefore part of the actions required for the optional alternative as provided by paragraph (4) of this AD, irrespective of whether a pad assembly is made of titanium or aluminium alloy. When, as a result of the inspection of the underlying structure, discrepancies are detected, before next flight, accomplish the associated corrective actions or contact Boeing to provide approved instructions and accomplish those instructions accordingly.</p>
Ref. Publications:	<p>Boeing SB 737-78-1082 Original, dated 25 March 2010.</p> <p>Boeing SB 737-78-1088 Original, dated 12 May 2010.</p> <p>Boeing SB 737-78-1079 Revision 2 dated 07 June 2010.</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. The original issue of this AD was posted on 30 September 2010 as PAD 10-087 for consultation until 31 October 2010. 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: Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; E-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.