EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE
	PAD No.: 10–101 **Date: 22 September 2010** 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 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 :	**Type/Model designation(s) :**
Airbus	A300/ A310 A318/ A319/ A320/ A321 A330 A340 aeroplanes
The Boeing Company	B717 B737 B747 B757 B767 B777 aeroplanes
McDonnell Douglas Corporation	MD-11 DC-9, MD-88, MD-90 aeroplanes

TCDS Numbers :	DGAC France No. 145, EASA.A.004, EASA.A.015, EASA.A.064, EASA.IM.A.003, EASA.IM.A.035, EASA.IM.A.120, EASA.IM.A.196, FAA A6WE, FAA A2NM, FAA A22WE
Foreign AD :	None
Supersedure :	None

ATA 25	**Equipment & Furnishings – Passenger Seats – Replacement**
Manufacturer(s):	Airbus (formerly Airbus Industrie), The Boeing Company (including McDonnell Douglas Corporation)
Applicability:	Airbus A310 aeroplanes, all certified models, all manufacturer serial numbers (MSN); Airbus A300-600 aeroplanes, all certified models, all MSN; Airbus A318 aeroplanes, models -111, -112, -121and -122, A319 aeroplanes, models -111, -112, -113, -114, -115, -131, -132 and -133, A320 aeroplanes,

	models -111, -211, -212, -214, -215, -216, -231, -232 and -233, A321 aeroplanes, models -111, -112, -131, -211, -212, -213, -231 and -232, all MSN; Airbus A330 aeroplanes, models -201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342 and -343, all MSN; Airbus A340 aeroplanes, models -211, -212, -213, -311, -312, -313, -541, -542, -642 and -643, all MSN; Boeing 717-200 Series, Boeing 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -800, and -900 Series , Boeing 747-100, -100B, -100B SUD, -200B, -200C, -300, -400, -400D, SR, and SP Series , Boeing 757 200, and -300 Series, Boeing 767-200, -300 and -400ER Series, Boeing 777-200; -200LR, -300 and -300ER Series, McDonnell Douglas MD-11, McDonnell Douglas DC-9 Series, MD-88 and MD-90-30 aeroplanes, if equipped with passenger seats manufactured by Koito Industries and installed on the aeroplane before the effective date of this AD, including all seats modified by third party after the initial delivery.
Reason:	The Japanese airworthiness authority JCAB has informed EASA that a review of the safety of passenger seats manufactured by Koito industries has disclosed discrepancies which include falsification of static, dynamic and flammability testing, as well as uncontrolled changes to production data (material and dimensional). In addition JCAB confirmed that Koito records, showing evidence of falsification, could not be deemed complete. Examples include: • Fictitious dynamic test pulse plots inserted into test reports following failure to meet required certification requirements. • Flammability test coupons not representative of production parts, for instance by use of alternative adhesive not specified on the approved drawing. • Fictitious deformation values entered in test reports when values exceeded the maximum allowed. JCAB and EASA have concluded that all data (both design and manufacturing) generated by Koito must be treated as suspect. EASA and an affected aeroplane manufacturer developed a plan by which the airworthiness risk of the fleets of aeroplanes with Koito seats installed can be ranked. The plan took into account the number of passengers per aeroplane, number of aeroplanes affected and the aeroplane type of operation. Seat models with similar seat structures were grouped into “clusters” using the same criteria as outlined in Advisory Circular 25.562-1B. A programme of “Confidence Testing” (static, dynamic and flammability), using seats returned from service, was agreed and initiated. Seats returned from service were requested for this testing campaign because new-build seats would not reproduce the production non-conformities. Results from tests performed by Koito with the supervision of JCAB confirmed a high proportion of seat models failed the requirements for structural, flammability and occupant injury criteria.

	Due to the level of falsification and the length of time over which the falsification occurred, in combination with the lack of retained records, prompted EASA to deem that all Koito Seats exhibit unsafe conditions of varying degrees. The exact level of airworthiness risk for each seat model can only be determined through further dynamic or static testing (as per the applicable certification basis) and flammability testing. This AD requires the affected seats to be replaced no later than 2 years after the effective date of this AD if no test is performed. However, completion of testing in accordance with the requirements of this AD may allow the seats to remain in service for a longer duration.
Effective Date:	[TBD: 14 days after final AD issue date]
Required Action(s) and Compliance Time(s):	Required as indicated, unless already accomplished: (1) Within 2 years after the effective date of this AD, for each seat manufactured by Koito Industries and installed before the effective date of this AD on an affected aeroplane, perform one of the following three actions; (1.1) Successfully complete a certification programme to show that the seat and its installation fully comply with the appropriate certification basis. The certification programme plan and results must be presented to EASA for agreement. In addition it must be shown, through a process agreed by EASA, that each seat installed on an aeroplane is in conformance to the approved seat design. Following successful completion of the agreed programme, no further action is required, or (1.2) Remove the seat, or (1.3) Determine whether the seat is eligible to remain in service for a longer period in accordance with the relevant requirements of paragraphs (2) through (3) and (4) or (5) of this AD. The test/analysis programme plan and results, must be presented to EASA for agreement. If it has been agreed that the seat may remain in service for a longer period, at any time during that period the seat and its installation may be shown to fully comply with the appropriate certification basis, i.e. paragraph (1.1) above may still be followed. (2) Perform testing to determine whether the seat cushion complies with JAR/CS 25.853(c) (i.e. Appendix F Part II). (2.1) Within 3 years remove Koito Industries seat cushions that are not shown to be compliant with the flammability testing defined by JAR/CS 25.853(c) (i.e. Appendix F Part II). Note 1: The replacement cushions must have consistent seat bottom stiffness and seat reference point locations in accordance with the guidance of FAA Advisory Circular 25.562-1B Appendix 3 paragraph 9 as compared with the cushions they replace. (3) Within 2 years remove Koito Industries seats that are shown to exhibit sharp or injurious surfaces in testing conducted to satisfy the original certification programme, or testing conducted in accordance with paragraph (4) or (5) of this AD.

Note 2: EASA will accept photographic evidence from Koito Industries test reports to determine whether there are any sharp or injurious surfaces. This is the only case where Koito Industries documentation may be considered acceptable. EASA will also accept data from any of the tests performed to meet the other requirements of this AD.

(4) For aeroplanes required to meet JAR/CS 25.562 requirements (either by their original Certification Bases or Post TC Modifications) perform dynamic and/or static testing on passenger seats.

Note 3: The use of an EASA Part 21 DOA holder to develop and conduct the test programme (in accordance with their procedures, including the control and oversight of the test facility) will facilitate the EASA approval process.

(4.1) Within 10 years after the effective date of this AD remove Koito Industries passenger seats that have passed dynamic testing in accordance with JAR/CS 25.562(b)(2) and (c)(7),
or
Within 6 years after the effective date of this AD remove Koito Industries passenger seats that have passed static testing to JAR/CS 25.561(b)(3)(ii) and (b)(3)(iii),
or
Within 2 years after the effective date of this AD remove Koito Industries passenger seats that are not shown to be compliant to either dynamic testing to JAR/CS 25.562(b)(2) and (c)(7), or static testing to JAR/CS 25.561(b)(3)(ii) and (b)(3)(iii).

(5) For aeroplanes NOT required to meet any JAR/CS 25.562 requirements (either by their original Certification Bases or Post TC Modifications) perform static testing on passenger seats.

Note 4: The use of an EASA Part 21 DOA holder to develop and conduct the test programme (in accordance with their procedures, including the control and oversight of the test facility) will facilitate the EASA approval process.

(5.1) Within 10 years after the effective date of this AD remove Koito Industries passenger seats that have passed static testing to JAR/CS 25.561(b)(3)(ii) and (b)(3)(iii),
or
Within 2 years after the effective date of this AD remove Koito Industries passenger seats that are not shown to be compliant to JAR/CS 25.561(b)(3)(ii) and (b)(3)(iii).

(6) After the effective date of this AD, do not install any Koito Industries passenger seat or component on any aeroplane, unless in compliance with the requirements of this AD.

Note 5: Seats and components that successfully complete the relevant requirements of paragraphs (3) through (4) and (5) or (6) of this AD and are permitted to remain in service for the defined length of time, are limited in how they can be used, unless they are shown to fully comply with paragraph (1) of this AD.
Non-compliant seats and their components that are removed from service are not eligible for installation on another aeroplane or by another operator except as a direct spare for the same part number seat or component. Any other use would be considered a new installation approval and must comply with all regulations.

	(7) Changes to Seats Wear-out component replacement parts such as food trays, arm rest covers, and non-structural members may be manufactured and installed on seats affected by this AD, until the compliance time as specified in this AD. These parts must be shown to comply with the flammability and injury prevention provisions as required by this AD. Any other category of change (e.g. In-Flight Entertainment upgrade) must be submitted to EASA for approval.
Ref. Publications:	None
Remarks:	1. This Proposed AD will be closed for consultation on 17 November 2010. 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.