



SAIB: NM-11-46R1

Date: April 30, 2013

SUBJ: Equipment/Furnishings: Koito Industries Passenger Seats

This is information only. Recommendations aren't mandatory.

CORRECTION: The note indicators in Table 1 have been fixed.

Introduction

This Special Airworthiness Information Bulletin advises registered owners, operators, and original equipment manufacturers of **transport category airplanes** having certain Koito Industries passenger seats of information related to Airworthiness Directive (AD) 2011-12-01.

Background

Between December 2009 and June 2010, Koito Industries, under the oversight of the Japan Civil Aviation Bureau (JCAB), performed a series of tests (both static and dynamic) on certain Koito Industries passenger seats. The results of these tests have been incorporated into Table 1 and Table 2 of this SAIB.

In May 2011 we issued the subject AD for Koito Industries passenger seats to ensure certain static and dynamic strength criteria are met. That AD was issued without related service information from the design approval holder; therefore, owners and operators could find it difficult to obtain work instructions than it would be using work instructions provided in service information. Because there are numerous airplane models and part numbers for the affected seats, owners and operators may be able to utilize data from seats with more critical design features to obtain and implement appropriate work instructions.

The FAA worked closely with the European Aviation Safety Agency (EASA) for harmonization before issuing our AD. In addition, EASA recently issued Safety Information Bulletin 2011-23, which contains related recommendations that are fully acceptable to the FAA.

Since November 2009 Koito Industries, under the oversight of the Japan Civil Aviation Bureau (JCAB), has continued testing on certain Koito Industries passenger seats. The tables in this SAIB have been revised to reflect acceptable test data available at Koito Industries. Acceptable testing by other entities (i.e. test facilities, production approval holders, designated organizational authorities, or airlines) is not included in the tables.

Recommendations

The FAA recommends that operators use the current data provided in Table 1 of this SAIB as guidance to help reduce the amount of testing necessary for seats installed on Boeing airplanes; the current data provided in Table 2 of this SAIB provides guidance to help reduce the amount of testing necessary for seats installed on Airbus airplanes. The concept of "seat clusters" has been developed based on similarity of design and construction. Each row of Table 1 and Table 2 of this SAIB corresponds to a seat cluster that may include one or more Koito Industries seat models. The most critical seat part number for each cluster has been identified. The current data include corrections of typographical errors, new model additions, re-clustering, new clusters, and identifying the next less

critical seat part number when the critical seat part number tested failed or is no longer in-service. Some seat models are listed twice due to rearranging of the seat cluster. Some clusters may have multiple critical part numbers identified.

Testing has been conducted on both in-service and newly manufactured test articles. Testing on newly manufactured test articles is acceptable to demonstrate static strength; however, it is not currently acceptable to demonstrate dynamic strength unless shown that the in-service seats conform to the approved design.

Information on available test data has been incorporated into Table 1 and Table 2 of this SAIB. The information shown in Table 1 and Table 2 of this SAIB identify only acceptable test data available at Koito Industries. Any commercial arrangements necessary to obtain such data are the responsibility of the operators.

For Further Information Contact

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Table 1: The Boeing Company Seat Clusters

Seat Model	Critical Seat Part Number for the Static Tests required by the AD	Critical Seat Part Number for Dynamic Test required by the AD	An available Koito Dynamic/Static Test Report is acceptable to show compliance with the AD static strength requirements
ARS-311	145-2455-401F		
ARS-339	161-3325-401		Yes
ARS-347	166-3624-401		
ARS-385*	179-9828-401		
ARS-392	181-5029-405		Yes
ARS-423 ARS-417 ARS-446	161-5319-401 From ARS-423		Yes
ARS-478 ARS-418	83-178B6124-401 From ARS-478		
ARS-480	83204B10018-403		
ARS-482	83-206B5596-401		Yes ¹
ARS-483	83-193B6354-401		Yes ¹
ARS-514	83-178B7325-409		
ARS-550 ARS-595		83-222B7451-403 From ARS-550	
ARS-553	83-223B7336-401		
ARS-577 Y11B31	83-220B8711-437 From ARS-577		Yes ¹
ARS-591 ARS-615 ARS-600 Y11B73 ARS-620 ARS-673 ARS-626 ARS-610 ARS-636	83-220B8306-401 From ARS-591	83-220B8306-401 From ARS-591	Yes
ARS-644 ARS-596 Y11B33	83236B10621A401 From ARS-644 or 83-220B8306-401 From ARS-591	83236B10621A401 From ARS-644	Yes
ARS-592 ARS-616 ARS-814 ARS-859 Y27B73		83-220B8308-402 or 83-220B8308-412 From ARS-592	Yes
ARS-597 ARS-669 ARS-601 ARS-629		83-237B8545A401 From ARS-597	Yes
ARS-607	83-239B9071-403		Yes
ARS-627 ARS-594		83-227B9988-401 From ARS-627	Yes
ARS-649	83251B10915-415		Yes

Seat Model	Critical Seat Part Number for the Static Tests required by the AD	Critical Seat Part Number for Dynamic Test required by the AD	An available Koito Dynamic/Static Test Report is acceptable to show compliance with the AD static strength requirements
ARS-652	83252B11112-401		Yes
ARS-668		83258B11456A401	
ARS-670 F11M11 ARS-657 ARS-843 ARS-709		F1141B7C341-401 From ARS-670	Yes
ARS-671 - Std Row	83261B11288-401		Yes
ARS-674 - Std Row ARS-649 ARS-815 Y21B73 ARS-651		83264B12255-401 or 83264B15875-401 From ARS-674	Yes
ARS-694 - Front Row		83289B20021-401	
ARS-694 - Std Row		83289B20019-401	
ARS-704	83258B12423-401 (or dynamic test on ARS-668)		
ARS-710- Std Row		83269B15257-403 (or test ARS-674 with additional 11 pounds of ballast)	Yes
ARS-813		83252B16199-401	
ARS-823*		83273B15860-407	
ARS-831*		83220B16151-401	
ARS-833 PB7-2001		83274B16049-403 From ARS-833	
ARS-835 ARS-869	83283B16713-403 From ARS-835	83283B16713-403 From ARS-835	Yes ¹
ARS-841		83285B17224-401	
ARS-844		83290B17256-401	
ARS-849 ARS-857		83296B18681-431 From ARS-849	Yes
ARS-858		83296B19960-401 or 83296B19143-401	Yes
ARS-861		83293B19310-407	
ARS-862		83294B19312-409	
P11B33 P11B31 ARS-832 ARS-853		P1143B3J306-401 From P11B33	Yes
P11M93		P1141M9J302-401	Yes
P21B35 P21B33		P2141B3A405-401 with additional 8 pounds of ballast From P21B35	Yes
P21B73		P2161B7A401-401	Yes

Seat Model	Critical Seat Part Number for the Static Tests required by the AD	Critical Seat Part Number for Dynamic Test required by the AD	An available Koito Dynamic/Static Test Report is acceptable to show compliance with the AD static strength requirements
P32B73		P3249B7J401-401	Yes
P52B41 P56B63 ARS-847	P5241B4A401-401 From P52B41	P5641B6A407-401 From P56B63	
Y15B73 ARS-710 - Front Row ARS-674 - Front Row ARS-671 - Front Row		Y1551B7C341-401 From Y15B73	Yes
YE1B35		YE157B3A407-401	Yes
YG7B35		YG751B3A401-401	

Note 1: The applicable TSO requires 4g side loading. The side test was conducted at 1.5g. Review the type certification basis of the airplane model to determine if the data may be beneficial to satisfy the aircraft installation requirements.

***According to current data, this seat model is no longer in service.**

Table 2: Airbus Industries Seat Clusters

Seat Model	Critical Seat Part Number for the Static Tests required by the AD	Critical Seat Part Number for Dynamic Test required by the AD	An available Koito Dynamic/Static Test Report is acceptable to show compliance with the AD static strength requirements
ARS-451*	83-178B5860-403	N/A	
ARS-507	83-214B6686-401	83-214B6686-401	
ARS-511	83-201B6764-401	83-201B6764-401	
ARS-514	83-178B7542-413	83-178B7542-413	
ARS-516	83-214B7086-401	83-214B7086-401	
ARS-571	83-227B7955-401	83-227B7955-401	
ARS-604	83222B8743-404	N/A	
ARS-617	83-240B10457- 407 or 83-240B8865-407	83-240B10457- 407 or 83-240B8865-407	
ARS-641	83247B10752-401	83247B10752-401	Yes
ARS-642	83248B10761-405	83248B10761-405	
ARS-646*	83250B10730-403	83250B10730-403	
ARS-658 P22A23	83255B12061-401 From ARS-658	N/A	
ARS-659 Y21A23	83256B12051-401 From ARS-659	N/A	
ARS-667	83257B11418-403	N/A	
ARS-670	83270B17113-401	83270B17113-401	
ARS-672 ARS-643 ARS-643R ARS-694 ARS-707 ARS-837 ARS-647 ARS-838	83262B12136-401 From ARS-672	83262B12136-401 From ARS-672	Yes
ARS-697	83267B15046-401	N/A	
ARS-832	83274B16017-401	N/A	
ARS-836	83279B16586-411	83279B16586-411	
ARS-840	83284B17131-401	83284B17131-401	
F44A33	F4439A3S014-401	F4439A3S014-401	

* According to current data, this seat model is no longer in service.