



**SAIB:** NM-11-46

**Date:** August 3, 2011

**SUBJ:** Equipment/Furnishings: Koito Industries Passenger Seats

*This is information only. Recommendations aren't mandatory.*

## **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 more 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.

## **Recommendations**

The FAA recommends that operators use the 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 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.

To date, all testing has been conducted on newly manufactured test articles. Although this is acceptable to demonstrate static strength, 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. However, 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**

<b>Seat Model</b>	<b>Critical Seat Part Number for Static Test</b>	<b>Critical Seat Part Number for Dynamic Test</b>	<b>Koito Dynamic/Static Test Report for Static Strength</b>
ARS-339	161-3325-401		Yes
ARS-385 ARS-482	179-9828-401 From ARS-385		
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-483	83-193B6354-401		
ARS-514	83-178B7325-409 (Fwd) 83-178B7325-401(Side)		
ARS-550 ARS-595 P21B73		83-222B7451-403 From ARS-550	
ARS-553	83-223B7336-401		
ARS-577 Y11B31	83-220B8711-437 (Fwd) 83-220B8713-401 (Side) From ARS-577		
ARS-591 ARS-615 ARS-626 Y11B73		83-220B8306-401 From ARS-591	Yes
ARS-592 ARS-616 ARS-814 ARS-859 Y27B73		83-220B8308-402 or -412 From ARS-592	Yes
ARS-597 ARS-669		83-237B8545A401 From ARS-597	
ARS-600	83-236B8558-401 (or dynamic test on ARS-644)		
ARS-601	83-237B8628-401 (or dynamic test on ARS-597)		
ARS-607	83239B10951-403		
ARS-620	83-220B9716-401 (or dynamic test on ARS-644)		
ARS-627 ARS-594		83-227B9988-401 From ARS-627	Yes
ARS-629	83-222B10130-401 (or dynamic test on ARS-597)		
ARS-644 ARS-596 Y11B33		83236B10621A401 From ARS-644	

<b>Seat Model</b>	<b>Critical Seat Part Number for Static Test</b>	<b>Critical Seat Part Number for Dynamic Test</b>	<b>Koito Dynamic/Static Test Report for Static Strength</b>
ARS-649 ARS-651	83251B10915-415 From ARS-649		
ARS-652	83252B11112-401		
ARS-668		83258B11456A401	
ARS-670 (Subset 1) ARS-709		F1141B7C341-401 From ARS-670	Yes
ARS-670 (Subset 2)		83260B11938-401	
ARS-670 (Subset 3)		83270B15188-401	
ARS-671	83261B11288-401		
ARS-673	83220B11989-401 (or dynamic test on ARS-644)		
ARS-694 - Front Row		83289B17250-401	
ARS-694 - Std Row		83289B17246-401	
ARS-704	83258B12423-401 (or dynamic test on ARS-668)		
ARS-710 - Std Row ARS-674 - Std Row ARS-815 Y21B73		83269B15257-403 From ARS-710 - Std Row	
ARS-813		83252B16199-401	
ARS-823		83273B15860-407	
ARS-833 PB7-2001		83274B16049-403 From ARS-833	
ARS-835 ARS-869	83283B16713-403 From ARS-835	83283B16713-403 From ARS-835	
ARS-841		83285B17224-401	
ARS-844		83290B17256-401	
ARS-849 ARS-857		83296B18681-431 From ARS-849	Yes
ARS-858		83296B19960-401	
ARS-861		83296B19310-407	
ARS-862		83294B19312-409	
F11M11 ARS-657 ARS-843	F1141M1K141-401 (Fwd) F1141M1K142-401 (Side) F1161M1K141-401 (Fwd & Side) From F11M11		
P11B31 ARS-832 ARS-853	P1143B3N104-401 (Fwd & Side) P1163B3N104-401 (Fwd & Side) From P11B31		

<b>Seat Model</b>	<b>Critical Seat Part Number for Static Test</b>	<b>Critical Seat Part Number for Dynamic Test</b>	<b>Koito Dynamic/Static Test Report for Static Strength</b>
P11B33		P1143B3J306-401	Yes
P11M93		P1141M9J302-401	
P21B35 P21B33		P2141B3A405-401 From P21B35	
P32B73		P3241B7J401-401	
P52B41 P56B63	P5241B4A401-401 (or dynamic test on P52B41)	P5241B4A405-401 From P52B41	
Y15B73 ARS-674 ARS-710 - Front Row		Y1551B7C341-401 From Y15B73	Yes
YE1B35		YE157B3A407-401	
YG7B35		YG751B3A401-401	

**Table 2: Airbus Industries Seat Clusters**

<b>Seat Models</b>	<b>Critical Seat Part Number for the Static Tests</b>	<b>Critical Seat Part Number for the Dynamic Test</b>	<b>Koito Dynamic/Static Test Report for Static Strength</b>
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 83-240B8856-407	83-240B10457- 407 or 83-240B8856-407	
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	
ARS-697	83267B15043-404	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	