

# **AMSAFE**<sup>®</sup>

## **SERVICE BULLETIN**

**EQUIPMENT / FURNISHING  
PASSENGER COMPARTMENT**

**INSPECTION / REPLACEMENT OF EJECTOR BASE**

**SERVICE BULLETIN NUMBER  
504443-25-02  
ISSUE 10**

ISSUED BY:  
AMSAFE INC.  
1043 N. 47<sup>th</sup> AVENUE  
PHOENIX, AZ USA 85043  
TEL: (602) 850 2850 FAX: (602) 850 2812

Prepared by:  
Chris Arnold

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Chris Arnold  
Design Engineer

Approved by:  
Matt Browning

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Matt Browning  
Engineering Manager

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### **RECORD OF REVISIONS**

Retain this record at the front of the Service Bulletin. On receipt of a revision, amend as instructed in the letter of transmittal and record the incorporation of the revision on this sheet. Retain the letter of transmittal following record.

<b>Issue</b>	<b>Changed by</b>	<b>Revisions</b>	<b>Approved</b>	<b>Release Date</b>
1	C.ARNOLD	NEW DOCUMENT RELEASE ECO: 4818	MB	12.8.14
2	C.ARNOLD	DOCUMENT REVISED PER ECO: 4860	GG CA	12.19.14
3	C.ARNOLD	DOCUMENT REVISED PER ECO: 4868	MB CA	12.23.14
4	C.ARNOLD	DOCUMENT REVISED PER ECO: 4902	DG CA	1-08-15
5	C.ARNOLD	DOCUMENT REVISED PER ECO: 4914	DG CA	1-12-15
6	C.ARNOLD	DOCUMENT REVISED PER ECO: 4939	DG CA	1-20-15
7	BROWNING	DOCUMENT REVISED PER ECO: 4989	DG CA	1-30-15
8	C.ARNOLD	DOCUMENT REVISED PER ECO: 5214	DG CA	3-12-15
9	C.ARNOLD	DOCUMENT REVISED PER ECO: 6683	MB CA	1-12-16
10	C.ARNOLD	DOCUMENT REVISED PER ECO: 6779	DG CA	2-23-16

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## 1. PLANNING INFORMATION

### A. Effectivity

This Service Bulletin is applicable to the Restraint System Assemblies installed on the passenger seats using the 504443-SERIES End Release Buckle manufactured from November 2010 to November 2015. The restraint systems that this service bulletin applies to are manufactured by AmSafe, Inc and include the following base part numbers:

1032-()-()-()	2261-()-()-()	3060-()-()-()	3155-()-()-()	3264-()-()-()
1043-()-()-()	2268-()-()-()	3061-()-()-()	3159-()-()-()	4171-()-()-()
1048-()-()-()	3000-()-()-()	3062-()-()-()	3163-()-()-()	4277-()-()-()
2087-()-()-()	3004-()-()-()	3083-()-()-()	3176-()-()-()	504443-()-()
2098-()-()-()	3004-()-()-()	3085-()-()-()	3195-()-()-()	504548-()-()-()
2102-()-()-()	3008-()-()-()	3106-()-()-()	3200-()-()-()	504828-()-()-()
2103-()-()-()	3023-()-()-()	3113-()-()-()	3202-()-()-()	7209-()-()
2167-()-()-()	3036-()-()-()	3128-()-()-()	3213-()-()-()	
2176-()-()-()	3040-()-()-()	3138-()-()-()	3216-()-()-()	
2177-()-()-()	3041-()-()-()	3140-()-()-()	3217-()-()-()	
2187-()-()-()	3059-()-()-()	3154-()-()-()	3220-()-()-()	

Inspections have found that the 505703-Series Compact End Release Buckle is not exhibiting the condition that was cause for the Service Bulletin. The reason for this is an as-cast feature that only exists in the Compact End Release Buckle Housing. This feature captures the subject Ejector Base, thereby not allowing the Ejector Base to deflect.

From initial release through revision 7, this Service Bulletin also included the AmSafe 505703-Series Compact End Release Buckle. Through a Root Cause Analysis it was determined that this specific Buckle series has a feature within the Buckle housing that mitigates the issue observed in some instances on the full size buckle, 504443-Series. In addition, no inspection findings in accordance with this Service Bulletin have been reported regarding the 505703-Series Buckle, and thus the scope of effected restraints has been changed to only the systems using the 504443-Series Buckle. For a visual reference regarding Buckle applicability, Figure 1, below, shows the 504443-Series Buckle and Figure 2 shows the unaffected 505703-Series Buckle. Please Note that the plating color on the Buckle may vary.

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**Figure 1:** 504443-Series Buckle



**Figure 2:** 505703-Series Buckle, Unaffected by Service Bulletin

### **B. Classification**

Article Manufacturer Recommended

### **C. Compliance**

AmSafe recommends that the inspection instructions in this Service Bulletin be done as soon as possible.

### **D. Reason**

An aircraft manufacturer has reported that they were able to remove the Connector from one of the subject End Release Buckles configurations after the Buckle appeared to be latched. This possible issue is being observed by this manufacturer on Restraint Systems with manufacturing dates from November 2010 to June 2014. Additionally, an issue with the Push Button being stuck in the pressed position has been observed on a small amount of buckles manufactured from August 2014 to September 2015.

By updating the Buckle Assembly with a 504604-11 Ejector Base from current production parts these issues are resolved.

### **E. Description**

This Service Bulletin provides instructions for Buckle Assembly inspection on aircraft by operator and manufacturer and any action if necessary. This Service Bulletin applies to all P/Ns listed in Section A including seat, divan, and extension restraints.

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### **F. Approval**

This Service Bulletin contains no modification information that revises the approval configuration and therefore does not require FAA/CAA or other regulatory agency approval. This Service Bulletin has been approved by AmSafe only. FAA TSO approval of the Restraint System Assembly is unaffected.

### **G. Manpower**

Buckle Assembly inspection and testing is estimated to require less than five (5) minutes per seat position.

Ejector Base replacement is estimated to require less than ten (10) minutes per Buckle Assembly.

Note: The estimate does not include lost time, for example:

- Time to schedule the work.
- Shipping, receiving or other administrative tasks required to complete this Service Bulletin.

### **H. Warranty**

AmSafe warranty remedies are available for those Lap Belt systems listed in the Effectivity Section of this Service Bulletin.

- (a) Restraint System Assemblies containing one of the subject Buckle Assemblies should be:
1. Returned to AmSafe, Inc. together with a free of charge purchase order containing the following information:
    - Reference SB504443-25-02
    - Description
    - Part number
    - Quantity
    - Name of airline
    - Operator shipping details

**Or**

2. Reworked per this service bulletin by ordering Ejector Base Replacement Kit P/N 506311-1. One kit contains enough components to address one buckle assembly as well as the instruction (P/N E506312) to perform work.

### **I. Material and Availability**

Ejector Base Replacement Kit P/N 506311-1 available from AmSafe, Inc.

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## J. Tooling – Price and Availability

Standard hand tools including T8H and T10H tamper-resistant Torx driver.

## K. Weight and Balance

No affect.

## L. Electrical Load Data

Not applicable.

## M. Software Accomplishment Summary

None.

## N. References

None.

## O. Other Publications Affected

None.

## 2. Inspection

### A. Identification

1. Find the label attached to the portion of the restraint that contains the End Release Buckle.
2. Find the label attached to this portion of the restraint system. On this label will be a date of manufacture (DMF) in the format AMMY, where “MM” is the month and “YY” is the year. To exemplify, “DMF A0313” would indicate that the date of manufacture is March of 2013.
3. If the label has any of the date of manufacture codes in Table 1 below, continue on with this Service Bulletin. If it does not, this Service Bulletin does not apply.

A1110	A1210	A0111	A0211	A0311	A0411	A0511	A0611	A0711	A0811	A0911
A1011	A1111	A1211	A0112	A0212	A0312	A0412	A0512	A0612	A0712	A0812
A0912	A1012	A1112	A1212	A0113	A0213	A0313	A0413	A0513	A0613	A0713
A0813	A0913	A1013	A1113	A1213	A0114	A0214	A0314	A0414	A0514	A0614
A0714	A0814	A0914	A1014	A1114	A1214	A0115	A0215	A0315	A0415	A0515
A0615	A0715	A0815	A0915	A1015	A1115					

Table 1: Restraint DMF Codes for Effected Buckles

4. If the part replacement in this Bulletin has been performed, the label will have “SB504443-25-02” hand-written or stamped on it.

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### **B. Verification Testing**

1. Completely insert the Connector into the Buckle as would be done during normal use. Visually check to see if the Connector is completely engaged within the Buckle. Figure 1 below shows a Buckle where the Connector is fully engaged. Figure 2 shows a Buckle where the Connector is not fully engaged. Notice the opening of the Connector is easily visible in Figure 4, whereas it is not in Figure 3.



**Figure 3:** Fully Engaged Connector



**Figure 4:** Connector not Fully Engaged

2. By hand, attempt to pull the Connector from the Buckle with significant force. Ensure that the Push Button is not depressed during this test.

Note that in a few observed instances, there was not distinct engagement of the Connector prior to it being pulled from the Buckle Assembly. If a distinct engagement is observed, the Buckle Assembly is functioning as designed.

If the Connector is able to be removed under force of hand, proceed with this Service Bulletin by following the directions in Warranty Section H, (a).

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3. Cycle the buckle five Times. One cycle consists of inserting the connector completely and depressing the Push Button to eject the connector. In the event that the Push Button does not return at all when the Connector is inserted as seen in Figure 5, proceed with this Service Bulletin by following the directions in Warranty Section H, (a).



**Figure 5:** Push Button not Returning when Connector Inserted

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