INSPECTION / REPLACEMENT OF EJECTOR BASE

SERVICE BULLETIN NUMBER
504443-25-02
ISSUE 10

ISSUED BY:
AMSAFE INC.
1043 N. 47TH AVENUE
PHOENIX, AZ USA 85043
TEL: (602) 850 2850    FAX: (602) 850 2812

Prepared by:
Chris Arnold
Design Engineer

Approved by:
Matt Browning
Engineering Manager

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Page 1 of 8
Issue: 10
Date: 10 February 2016
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.

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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:

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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.
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.
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.
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 AMMYY, 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.

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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](image1)

![Figure 4: Connector not Fully Engaged](image2)

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).
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]