



SAFO

Safety Alert for Operators

U.S. Department
of Transportation
**Federal Aviation
Administration**

SAFO 16007
DATE: 7/11/16

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

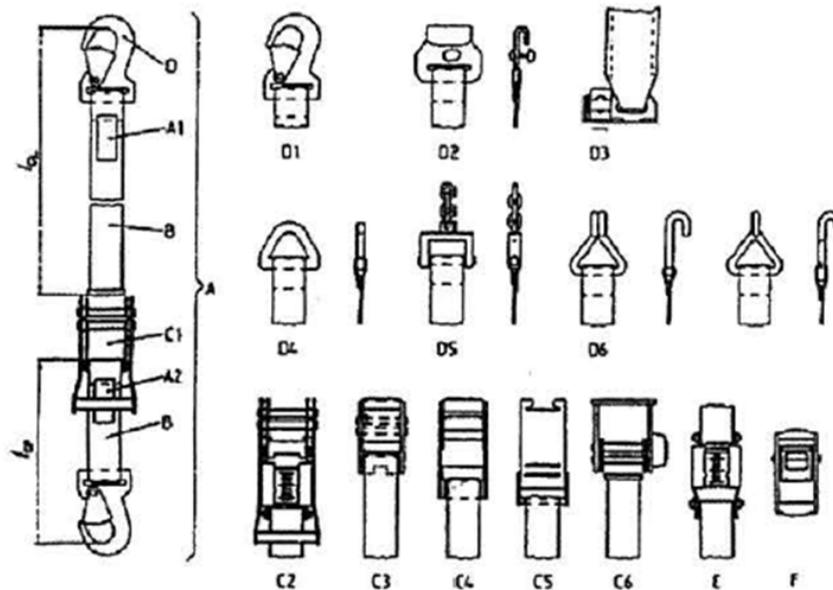
A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO.

Subject: Cargo Restraint Strap Assemblies

Purpose: This SAFO alerts operators to the recent release of Technical Standard Order (TSO) TSO-C172, Revision A, with an effective date of December 22, 2015. Specifically, the Federal Aviation Administration (FAA) is drawing attention to the note in Appendix 1, which states the prohibited use of the D6 end fitting. This prohibition is due to risk of self or inadvertent disengagement, whether or not the D6 end fitting is under tension.

Background: Refer to cargo straps manufactured in accordance with SAE Aerospace Document AS5385, Revision C, dated November 11, 2012. This technical standard defines the design criteria and testing methods of cargo restraint strap assemblies onboard civil transport aircraft. Section 3.6 defines the design of the end fittings for the straps as shown in Figure 1 details D1 to D6. End fitting D6 is a wire (round) claw hook that has no secondary retention device similar to fittings D1 or D2.

Figure 1



Discussion: During normal flight of transport airplanes, non-rigid cargo commonly shifts in small degrees that can create modest slack in some cargo restraint straps. Without a retaining device to ensure the D6 end fitting stays engaged to the attaching aircraft point, these normal flight movements cause the strap to slacken and the hook to become loose. This combination may result in unrestrained cargo during flight.

Figure 2



Additional Research:

- TSO-C172 Revision A. Effective Date: 12/22/15.
- SAE Aerospace Document AS5385, Revision C, dated November 11, 2012.
- www.sae.org.

Recommended Action: All operators should immediately suspend the use of cargo restraints with D6 end fittings. Operators with a Safety Management System (SMS) should conduct a safety risk assessment. Operators without an SMS should contact their certificate management office and discuss a process for assessing the risk to eliminate or mitigate the use of cargo restraints with D6 end fittings.

Contact: Questions or comments regarding this SAFO should be directed to the Aircraft Maintenance Division (AFS-300) via email at 9-AWA-AFS-300-Maintenance@faa.gov, 9-NATL-CARGO-CFT@faa.gov, or via phone at (202) 267-1675.