

U.S. Department of Transportation Federal Aviation Administration

## InFO

Information for Operators

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Flight Standards Service Washington, DC

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An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements, with relatively low urgency or impact on safety. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

**Subject:** Seat Belt Repairs and Alterations.

Purpose: This InFO provides clarification on the repair and/or alteration of seat belts.

**Background:** Per Title 14 of the Code of Federal Regulations (14 CFR) part 43 § 43.13, repairs must be done in such a manner and use materials of such a quality, that the condition of the aircraft, airframe, aircraft engine, propeller, or appliance worked on will be at least equal to its original condition (concerning qualities affecting airworthiness). Technical Standard Orders (TSO) TSO-C22, TSO-C127, TSO-C114 (as revised) and FAA Policy Statement ANM-115-05-10, set minimum performance standards for safety belts and seating systems but the data required to repair a seat belt goes beyond the criteria provided for in the aforementioned TSOs.

**Discussion:** Repairs to a seat belt are considered a major repair and/or alteration and require Federal Aviation Administration (FAA) approved data for the repair process. The replacement of safety belt (seat berth and shoulder harness) webbing material, frequently referred to as "re-webbing," has become a common industry practice to replace defective, damaged, worn, or soiled belt material. This is an acceptable practice when accomplished by a properly certificated and/or authorized person using approved data and materials. However, the re-webbing of a seat belt that is used on a dynamic seating system poses unique challenges if the Original Equipment Manufacturer (OEM) data and materials are not used.

Seat belts that are used in dynamic seating systems have a more rigorous design and performance requirement that must be met per the dynamic seat regulations of part 23 § 23.562 (§ 23.2270 for part 23 amendment 64); part 25 § 25.562; part 27 § 27.562 and part 29 § 29.562.

A determination of equivalency must be made if substitute material is used. Seat belts that are repaired, using materials other than those specified by the OEM, that comply with the airworthiness standards and material specifications will require extensive dynamic testing and analysis that could be cost-prohibitive.

For the aircraft to remain airworthy, the seat assembly must, per § 43.13, be installed and maintained (replacement seat belt) in a manner equal to its original design. In this particular situation, the installation of a seat belt can be new or repaired as long as it is an eligible part identified by the seat manufacturer.

However, if a repaired seat belt is used, it must be repaired in a manner that meets the regulatory requirements of part 43 and the TSO. Furthermore, the FAA may accept a repair substantiated to TSO-C22g and TSO-C114 for part 23 aircraft that do not have § 23.562(c)(5) in its certification basis. For Part 25 products, FAA Policy Statement ANM-115-05-10 provides an acceptable method of compliance via comparative dynamic testing.

**Recommended Action:** Maintenance providers should familiarize themselves with the information contained in this InFO.

Additional information is contained in AC 21-25B, *Approval of Modified Seating Systems Initially Approved Under a Technical Standard Order*, concerning the approval requirements and considerations to be made when working on components of seating systems.

**Contact:** Direct questions or comments regarding this InFO to the Aircraft Maintenance Division at (202) 267-1675, or via email at 9-AWA-AFS-300-Maintenance@faa.gov.