

TSO C90 d

Shanghai - 10 September, 2012



Introduction

TSO C90d Issued 30 Sept 2011

ETSO C90d Issued 5 July 2012

Effectivity

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e. Previously Approved Articles. A cargo pallet, net, or container approved prior to the date of this TSO may continue to be manufactured under the provisions of its original approval.

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b. New models of Type 2 ULDs identified and manufactured on or after the effective date of this TSO must meet the MPS qualification and documentation requirements in Society of Automotive Engineers, Inc. (SAE) Aerospace Standard (AS) 36100, *Air Cargo Unit Load Devices – Performance Requirements and Test Parameters*, Rev. A, dated April 2006, with the applicable exceptions identified in paragraph 3.c.

Note: Neither FAA nor EASA have any basis for withdrawing earlier TSO's or items approved under earlier TSO's



Major changes

- Testing requirements
- Degradation requirements
- Load and CG requirements
- Marking requirements

Testing

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No specific test standard

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h. Test Methods. Use SAE standard AS 36102, *Air Cargo Unit Load Devices - Testing Methods*, dated March 2005 to establish acceptable testing methods and load distributions for Type 2 ULDs.



Degradation

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No specific requirements

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e. **Material Performance.**

(1) Consider environmental degradation due to aging, ultra-violet (UV)-exposure, weathering, etc. for any materials used in the construction of pallets, nets and containers.

(2) For textile performance see SAE Aerospace Information Report (AIR) 1490B, *Environmental Degradation of Textiles*, dated December 2007, for available data for textile performance when exposed to environmental factors. These data will be taken into account for consideration of the effects of environmental degradation on nets commensurate with the expected storage and service life to satisfy SAE AS 36100 Rev. A, Paragraph 4.11.

NOTE: Environmental degradation data other than that documented in AIR1490B may be used if you substantiate the data and it is approved by the FAA aircraft certification office (ACO) manager responsible for administering your TSO or LODA. A net must meet the minimum performance requirements of this TSO at any time during its service life.

Load and CG Requirements

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Forward 1.5 G, sideways 1 G
CG height and offset limits not possible to test

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Forward 1.5 G, sideways 1.5 G
CG offset and height corrected



Marking

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b. Marking. The following information shall be legibly and permanently marked on the cargo unit load device in an area clearly visible after the article (or combination of articles) is loaded with cargo:

- (1) The name and address of the manufacturer.
- (2) The weight of the article to the nearest pound.

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(6) The nominal weight of the article in the format:

Weight: _____ kg (_____ lb).

(10) If applicable, mark the expiration date in the format “EXP YYYY-MM”

- (a) Mark the expiration date of a ULD as a limitation.
- (b) Mark each component or subassembly, as described in paragraph 4.b. with its expiration date.