



AEROSPACE RECOMMENDED PRACTICE

ARP1322™

REV. C

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Superseding ARP1322B

(R) Overpressurization Release Devices

RATIONALE

Revision C to this document provides additional clarity on requirements, updates applicable documents, and contains minor formatting improvements.

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1. SCOPE

This SAE Aerospace Recommended Practice (ARP) specifies the minimum design and qualification test recommendations for aircraft wheel overpressurization release devices used with tubeless aircraft tires to protect from possible explosive failure of the contained inflation chamber due to overinflation. Devices of this type provide a means, but not the only means, for showing compliance to Subsection 25.731(d) of Part 25 of Title 14 of the Code of Federal Regulations. Devices of this type will not protect against flash fire explosive conditions within the inflation chamber which may occur due to extremely overheated brakes or spontaneous combustion caused by a foreign substance within the inflation chamber. To help protect against this condition, nitrogen (N₂) or other inert gas should be used for inflation.

1.1 Purpose

This document recommends minimum qualification requirements for overpressurization release devices used with aircraft tubeless tire and wheel assemblies.

1.2 Classification

Overpressurization Release Devices should be furnished in a range of sizes to accommodate the sizes and inflation pressure requirements of tubeless tire and wheel assemblies used on aircraft.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 U.S. Government Publications

Copies of these documents are available online at <http://quicksearch.dla.mil>.

AC43.13-1B Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair

Title 14 of the Code of Federal Regulations (14 CFR), Part 25

Technical Standard Order TSO-C135a Transport Airplane Wheels and Wheel and Brake Assemblies Title 14, Code of Federal Regulations (14 CFR) Part 25.731 (d) - Airworthiness Standards: Transport Category Airplanes, Wheels

Title 14, Code of Federal Regulations (14 CFR) Part 25.731 (d) - Airworthiness Standards: Transport Category Airplanes, Wheels

3. GENERAL REQUIREMENTS

3.1 Materials

Materials used in the construction of the devices should be suitable for the purpose intended. All metals should be corrosion resistant unless suitably plated or treated to resist corrosion during stocking and normal service life use. The use of dissimilar metals, especially brass, copper, or steel in contact with aluminum, magnesium, or alloys thereof, should be avoided where practicable. Where the use of dissimilar metals cannot be avoided, they should be insulated from contact with each other.

3.2 Workmanship

Workmanship and finish should be in accordance with high grade aircraft accessory manufacturing practice and be free of defects which affect proper functioning in service.