For Comments Only

BUREAU OF INDIAN STANDARDS

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भारतीय मानक **मसौदा**

अंतरिक्ष पद्धतियाँ — संरचनात्मक घटक और संयोजन

Draft*Indian Standard*

SPACE SYSTEMS — STRUCTURAL COMPONENTS AND ASSEMBLIES

ICS : 49.140

Air and Space Vehicles Sectional Committee, TED 14 **Last date for receipt of comments is 28/08/2024**

NATIONAL FOREWORD

(Identical Clause to be added later)

The text of ISO standard is proposed for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 14622 : 2000 Space systems —Structural design — Loads and induced environment	Doc (22978)/ ISO 14622 : 2000 Space systems — Structural design — Loads and induced environment (*under development*)	Identical under dual numbering
ISO 14623 : 2003 Space systems — Pressure vessels and pressurized structures — Design and operation	Doc (22979)/ ISO 14623 : 2003 Space systems — Pressure vessels and pressurized structures — Design and operation (*under development*)	Identical under dual numbering
ISO 14953 : 2000	Doc (22935)/ ISO 14953 : 2000	Identical under dual numbering

Space systems — Structural design — Determination of loading levels for static qualification testing of launch vehicles	Space systems — Structural design — Determination of loading levels for static qualification testing of launch vehicles (*under development*)	
ISO 15864 : 2004 Space systems — General test methods for space craft, subsystems and units	Doc (22939)/ ISO 15864 : 2021 Space systems — General test methods for spacecraft, subsystems and units (*under development*)	Identical under dual numbering
ISO 22010 : 2007 Space systems — Mass properties control	Doc (22971)/ ISO 22010 : 2022 Space systems — Mass properties control (*under development*)	Identical under dual numbering
ISO 24917 : 2010 Space systems — General test requirements for launch vehicles	Doc (22973)/ ISO 24917 : 2010 Space systems — General test requirements for launch vehicles (*under development*)	Identical under dual numbering

The technical committee has reviewed the provisions of following International Standards referred in this adopted standards and has decided that their acceptable for use in conjunction with this standard:

International Standard	*Title*
ISO 16454 : 2007	Space systems — Structural design — Stress analysis requirements
ISO 14954 : 2005	Space systems — Dynamic and static analysis — Exchange of mathematical models
ISO 21347 : 2005	Space systems — Fracture and damage control
ISO 21648 : 2008	Space systems – Flywheel module design and testing
ISO 24638 : 2008	Space systems — Pressure components and pressure system integration

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

SCOPE

This International Standard establishes requirements for the design; material selection and characterization; fabrication; testing and inspection of all structural items in space systems, including expendable and reusable launch vehicles, satellites and their payloads. This International Standard, when implemented for a particular space system, will assure high confidence in achieving safe and reliable operation in all phases of its planned mission.

This International Standard applies specifically to all structural items, including fracture-critical hardware use in space systems during all phases of the mission, with the following exceptions: adaptive structures, engines and thermal protection systems.

FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 10786 : 2011 or CONTACT:

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