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**Aircraft ground equipment — Basic  
requirements —**

Part 2:  
**Safety requirements**

*Matériel au sol pour aéronefs — Exigences de base —*

*Partie 2: Exigences de sécurité*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6966-2 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This first edition of ISO 6966-2, together with ISO 6966-1, cancels and replaces ISO 6966:1993, which has been technically revised.

ISO 6966 consists of the following parts, under the general title *Aircraft ground equipment — Basic requirements*:

- *Part 1: General design requirements*
- *Part 2: Safety requirements*

## Introduction

This part of ISO 6966 specifies the safety requirements to be taken into account by manufacturers for the design of aircraft ground support equipment. It identifies the various concerns to be taken into consideration to ensure ground equipment safety for operators and aircraft.

Throughout this part of ISO 6966, the minimum essential criteria are identified by use of the key word “shall”. Recommended criteria are identified by use of the key word “should” and, while not mandatory, are considered to be of primary importance in providing safe, economical and usable aircraft ground support equipment. Deviation from recommended criteria should only occur after careful consideration and thorough service evaluation have shown alternative methods to provide an equivalent level of safety.

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# Aircraft ground equipment — Basic requirements —

## Part 2: Safety requirements

**IMPORTANT** — In most countries, standing government health and safety laws and regulations apply to machinery, implicitly or explicitly including aircraft ground support equipment. Nothing in this part of ISO 6966, however, shall be deemed or otherwise used to supersede any locally applicable law or regulation, unless a specific exemption has been obtained for this purpose from the appropriate authority.

### 1 Scope

This part of ISO 6966 specifies the minimum design requirements applicable to all aircraft ground support equipment, as defined in 3.1, in order to ensure

- a) safety of staff operating or maintaining the equipment or in its vicinity;
- b) protection of aircraft against interference or damage.

The requirements of this part of ISO 6966 apply to any piece of aircraft ground support equipment, as defined in 3.1, used on airports.

**NOTE** An informative list of the most commonly used pieces of ground equipment is provided in Annex A.

This part of ISO 6966 does not provide all the design requirements applicable for aircraft ground support equipment. Other requirements apply, and can be found in separate standards:

- ISO 6966-1 specifies the general, other than safety related, design requirements applicable to all aircraft ground support equipment;
- ISO 4116 specifies the additional requirements applicable for conveying surfaces of those pieces of aircraft ground support equipment intended for handling and loading of baggage and cargo unit load devices;
- specific standards, listed in the Bibliography, define the functional and performance requirements for certain types of aircraft ground support equipment.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3411, *Earth-moving machinery — Human physical dimensions of operators and minimum operator space envelope*

ISO 3457, *Earth-moving machinery — Guards — Definitions and requirements*

ISO 3795, *Road vehicles, and tractors and machinery for agriculture and forestry — Determination of burning behaviour of interior materials*

ISO 3864 (all parts), *Graphical symbols — Safety colours and safety signs*

ISO 4116, *Air cargo equipment — Ground equipment requirements for compatibility with aircraft unit load devices*

ISO 6682, *Earth-moving machinery — Zones of comfort and reach for controls*

ISO 6966-1, *Aircraft ground equipment — Basic requirements — Part 1: General design requirements*

ISO 7000, *Graphical symbols for use on equipment — Index and synopsis*

ISO 11995:1996, *Aircraft — Stability requirements for loading and servicing equipment*

ISO 14122-3, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails*

ECE 43, *Uniform provisions concerning the approval of safety glazing and glazing material* <sup>1)</sup>

ECE 79, *Uniform provisions concerning the approval of vehicles with regard to steering equipment* <sup>1)</sup>

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6966-1 apply, some of which are reproduced below for the convenience of the user.

#### 3.1

##### **aircraft ground support equipment**

##### **GSE**

ground equipment

ramp equipment

any piece of mobile equipment, whether or not powered or self-propelled, purpose designed, built and used for ground handling, servicing or field maintenance of civil transport aircraft on the ramp area of an airport

NOTE A non-comprehensive informative list of the most commonly used pieces of ground equipment is provided in Annex A.

#### 3.2

##### **ramp area**

apron GB

zone of an airport where aircraft manoeuvre and park for ground handling purposes

#### 3.3

##### **ramp**

apron GB

tarmac US

surface of the ground in the ramp area

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1) ECE 43 and 79 are part of the United Nations Economic Commission of Europe agreement concerning the adoption of uniform conditions of approval and reciprocal recognition of approval for motor vehicle equipment and parts, and can be obtained from any United Nations office.