



SLOVENSKI STANDARD
oSIST prEN ISO 11532:2020
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Letalska talna oprema - Grafični simboli (ISO 11532:2018)

Aircraft ground equipment - Graphical symbols (ISO 11532:2018)

Luftfahrt-Bodengeräte - Graphische Symbole (ISO 11532:2018)

Matériel au sol pour aéronefs - Symboles graphiques (ISO 11532:2018)

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49.100	Oprema za servis in vzdrževanje na tleh	Ground service and maintenance equipment

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INTERNATIONAL
STANDARD

ISO
11532

Second edition
2018-02

**Aircraft ground equipment —
Graphical symbols**

Matériel au sol pour aéronefs — Symboles graphiques

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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

This second edition cancels and replaces the first edition (ISO 11532:2012), to which it adds new symbols [20.09.07.54, 20.09.05.20 and 20.09.05.21], deemed indispensable for aircraft protection at docking and electrically powered equipment protection.

Introduction

This document is a compendium of all graphical symbols generally used on aircraft ground support equipment. Included are relevant symbols used in the automotive industry, as standard commercial chassis often form part of the equipment.

Manufacturers are encouraged to select those symbols needed for the type(s) of equipment they produce. Users of equipment can also take an excerpt from the content of this document for staff training purposes depending on the equipment concerned.

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Aircraft ground equipment — Graphical symbols

1 Scope

This document establishes common graphical symbols for use on all types of aircraft ground support equipment.

They have been compiled for the benefit of those who deal with such equipment, such as airlines, airport handling agencies, airport authorities, manufacturers, etc., in order to facilitate fast and accurate identification of controls, indicators and decals of powered and unpowered equipment.

The presentation of this document is based on the recommendations of ISO/TC 145, *Graphical symbols*.

This document is also intended to promote standardization of terms for controls, indicators, etc. for aircraft ground support equipment and alleviate language problems.

These graphical symbols are intended to be placed on all new equipment and retrofitted on all existing equipment as far as possible.

NOTE This document is intended to be read with the documents listed in the bibliography.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 6966-2, *Aircraft ground equipment — Basic requirements — Part 2: Safety requirements*

ISO 7000, *Graphical symbols for use on equipment — Registered symbols*,¹⁾²⁾

ISO 10254, *Air cargo and ground equipment — Vocabulary*

IEC 60417, *Graphical symbols for use on equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10254 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <http://www.iso.org/obp>

4 General requirements

The symbols shall be as given in Clause 5, except for any deviations necessary to reproduce an accurate representation of the driver's or operator's line of sight. All symbols required are listed in Clause 5 and most are defined in ISO 7000.

1) The database *Graphical symbols for use on equipment*, available at <http://www.graphical-symbols.info/>, contains all the symbols in IEC 60417 and ISO 7000.

2) The graphical symbol collections of ISO 7000, ISO 7001 and ISO 7010 are also available on line in the ISO web store or the online browsing platform (OBP). For more information, consult: <https://www.iso.org/obp/ui>

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Symbols on controls and tell-tales shall contrast well with their background (preferably light symbols on a dark background).

The symbols and tell-tales shall be recognizable by the driver or operator from his usual position without causing hazard or unavoidable stress.

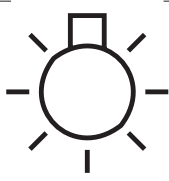






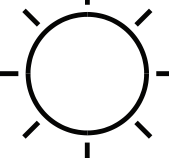
On equipment directly docking onto aircraft, the slow docking speed shall be identified in opposition to travel speed by the “turtle” (20.09.07.52) and “hare” (20.09.07.53) symbols defined in ISO 3287, and the very slow final docking speed shall be identified by the “snail” symbol (20.09.07.54).

The corresponding speed ranges shall be as specified in ISO 6966-2.

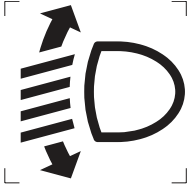
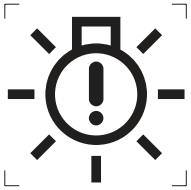

5 Designation and illustration of symbols

5.1 Equipment lighting

ISO/TC 20/SC 9 number	Graphical symbol	Symbol description/application	ISO/IEC registration number
20.09.01.01		Beacon	ISO 7000-1141A
20.09.01.02		Working light	ISO 7000-1142
20.09.01.03		Telescoping light mast	ISO 7000-1143
20.09.01.04		Stairs light	ISO 7000-1144
20.09.01.05		Interior light	ISO 7000-1421B
20.09.01.06		Reversing light	ISO 7000-1146

ISO/TC 20/SC 9 number	Graphical symbol	Symbol description/application	ISO/IEC registration number
20.09.01.07		Master lighting switch	IEC 60417-5012
20.09.01.08		High beam; upper beam	ISO 7000-0082
20.09.01.09		Lower beam; dipped beam	ISO 7000-0083
20.09.01.10		Position lamps	ISO 7000-0456
20.09.01.11		Parking lights	ISO 7000-0240
20.09.01.12		Front fog light	ISO 7000-0633
20.09.01.13		Rear fog light	ISO 7000-0634
20.09.01.14		Light intensity	IEC 60417-5056

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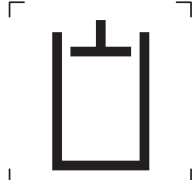

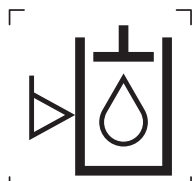
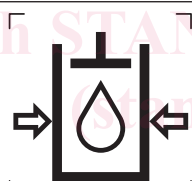
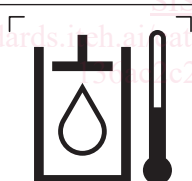

ISO/TC 20/SC 9 number	Graphical symbol	Symbol description/application	ISO/IEC registration number
20.09.01.15		Headlamp setter	ISO 7000-0151
20.09.01.16		Exterior lamp failure	ISO 7000-1555
20.09.01.17		Instrument lighting	ISO 7000-1556

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5.2 Hydraulics

ISO/TC 20/SC 9 number	Graphical symbol	Symbol description/application	ISO/IEC registration number
20.09.02.01		Hydraulic system	ISO 7000-1409
20.09.02.02		Hydraulic fluid	ISO 7000-1411
20.09.02.03		Hydraulic fluid level	ISO 7000-1412
20.09.02.04		Hydraulic pressure	ISO 7000-1413
20.09.02.05		Hydraulic fluid temperature	ISO 7000-1414
20.09.02.06		Hydraulic filter	ISO 7000-1415