SLOVENSKI STANDARD
oSIST prEN ISO 14122-2:2014

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Varnost strojev - Stalni dostopi do strojev - 2. del: Delovne ploščadi in podesti (ISO/DIS 14122-2:2013)

Safety of machinery - Permanent means of access to machinery - Part 2: Working platforms and walkways (ISO/DIS 14122-2:2013)

Sicherheit von Maschinen - Ortsfeste Zugänge zu maschinellen Anlagen - Teil 2: Arbeitsbühnen und Laufstege (ISO/DIS 14122-2:2013)

Sécurité des machines - Moyens d'accès permanents aux machines - Partie 2: Plates-formes de travail et passerelles (ISO/DIS 14122-2:2013)

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Safety of machinery — Permanent means of access to machinery —

Part 2: Working platforms and walkways

Sécurité des machines — Moyens d'accès permanents aux machines —

Partie 2: Plates-formes de travail et passerelles

[Revision of first edition (ISO 14122-2:2001) and first edition ISO 14122-2:2001/Amd 1:2010]

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ISO/CEN PARALLEL PROCESSING

This draft has been developed within the European Committee for Standardization (CEN), and processed under the **CEN lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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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 14122-2 was prepared by Technical Committee ISO/TC 199, *Safety of machinery*.

This second edition cancels and replaces the first edition of which has been technically revised.

ISO 14122 consists of the following parts, under the general title *Safety of machinery — Permanent means of access to machinery*:

Part 1: Choice of fixed means of access

Part 2: Working platforms and walkways

Part 3: Stairs, stepladders and guards-rails

Part 4: Fixed ladders

Introduction

This document is a type-B standard as stated in ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organisations, market surveillance etc.);

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e. g. trade unions, organizations for peoples with special needs);

— service providers, e. g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

In addition this document is intended for standardisation bodies elaborating type-C standards.

The requirements of this document can be supplemented or modified by a type-C standard.

For machines which are covered by the scope of a type-C standard and which have been designed and built according to the requirements of that standard, the requirements of that type-C standard take precedence.

The purpose of this standard is to define the general requirements for safe access to machines. This part of ISO 14122 gives advice about the correct choice of access means when the necessary access to the machine is not possible directly from the ground level or from a floor.

Annex A is informative and contains "Different methods of determining levels of slip-resistance ".

The dimensions specified are consistent with established ergonomic data given in ISO 15534-3.

Safety of machinery — Permanent means of access to machinery — Part 2: Working platforms and walkways

1 Scope

This International Standard is applicable to stationary machinery where fixed means of access are necessary.

This part of ISO 14122 applies to working platforms and walkways which are a part of a machine.

This International Standard may also apply to means of access to that part of the building (e. g. working platforms, walkways, ladders) where the machine is installed, providing the main function of that part of the building is to provide a means of access to the machine.

NOTE 1 If no national standard or regulation is applicable this standard may be used also for means of access are outside the scope of this standard.

This International Standard is applicable also to non-powered adjustable parts (e. g. foldable, slidable) and to the movable parts of fixed means of access

This International Standard is not applicable to machinery manufactured before the date of its publication.

NOTE 2 For mobile machinery, due to their dimensions and particular conditions of use, specific requirements deviating from this standard can be applied. Therefore it is intended to develop a standard for mobile machinery excluding mobile machinery used in rough terrain. For access to mobile machinery used in rough terrain such earth moving machinery see ISO 2867 and for agriculture machinery see ISO 4254-1.

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 12100, *Safety of machinery — General principles for design, risk assessment and risk reduction*

ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO/DIS 14122-1:2013, *Safety of machinery — Permanent means of access to machinery — Part 1: Choice of fixed means of access between two levels*

ISO/DIS 14122-3:2013, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails*

ISO 15534-1:2000, *Ergonomic design for the safety of machinery — Part 1: Principles for determining the dimensions required for openings for whole-body access into machinery*

ISO 15534-3:2000, *Ergonomic design for the safety of machinery — Part 3: Anthropometric data*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12100, ISO 14122-1 and the following apply.

3.1
flooring
assembly of elements making up the floor of a walkway or a working platform and being in direct contact with footwear

3.2
walkway
level or inclined surface used for moving from one point to another

3.2.1
temporary walkway
walkway permanent (fixed or attached) on the machine that is either movable, hinged to, or slide from an adjacent platform or walkway.

3.3
platform
working platform
level surface used for the operation, maintenance, inspection, repair, sampling and other phases of work in connection with the machinery

3.3.1
temporary platform
platform permanent (fixed or attached) on the machine that is either movable, hinged to, or slide from an adjacent platform or walkway

3.4
slip resistant surface
flooring surface designed for improving the grip of footwear

3.5
baseboard
filler plate between working platform and adjacent construction element

3.6
toe-plate
rigid vertical plate on a landing platform or flooring to prevent the fall of objects from a floor level (see ISO/DIS 14122-3:2013, Figure 2)

4 General requirements

4.1 General

The working platforms and walkways shall be designed, constructed, located and where necessary protected so that the operators are safe when having access to the working platforms and when they are on them for the operation, setting, monitoring, repairing or any other work involved with the machinery.

4.1.1 Construction and materials

Working platforms and walkways shall be designed and constructed and the materials selected so that they withstand the foreseeable conditions of use. In particular, at least the following details shall be considered:

a) dimensioning and selection of components (including fixings, connections, supports and foundations) to ensure sufficient rigidity and stability;

b) resistance of all parts to environmental effects (such as climate, chemical agents, corrosive gases) e. g. by the use of a corrosion resistant material or with the aid of a suitable protective coating;

c) positioning of constructional elements so that water cannot be accumulated e.g. in the joints;

d) use of compatible materials e. g. to minimise galvanic action or differential thermal expansion;

e) dimension of walkways and working platforms shall be according to available anthropometric data (see 4.2.2 of this standard, see also ISO 15534-1 and ISO 15534-3);

f) walkways and working platforms shall be designed and constructed to prevent the hazards due to falling objects. For guard-rails and toe plates, see clause 7 of ISO/DIS 14122-3:2013 and for openings in the flooring, see 4.2.4.5 of this part of ISO 14122.

4.1.2 Safety of operators

Walkways and working platforms shall be designed and constructed so that they are safe to use. In particular, the following details shall at least be considered:

a) all parts likely to be in contact with operators shall be designed and built in such a way that the operator is safe-guarded against injuries;

b) walkways and working platforms shall be designed and built in such a way that the walking surfaces have durable slip resistant properties;

c) the parts of machinery which operators have to walk or stand on shall be designed and fitted out to prevent persons falling from them (see ISO/DIS 14122-3:2013);

d) working platforms and access to working platforms shall be laid out in such a way that operators can quickly leave their workplace in the event of a hazard or can be quickly helped and easily evacuated when necessary;

e) handrails and other supports shall be designed, built and laid out in such a way that they are used instinctively.

4.2 Specific requirements

4.2.1 Location

As far as possible, walkways and working platforms shall be located away from the emission of harmful materials or substances. The walkways and walking platforms shall also be located away from the accumulation of material, such as earth which is likely to cause slipping.

Where there are moving objects, non-protected hot surfaces, unprotected live electrical equipment, etc., safety distances shall be a lied in accordance with ISO 13857:2008.

Working platforms shall be located in such a way as to allow people to work in an ergonomic position, if possible, between 500 mm and 1700 mm, above the surface of the working platform.

4.2.2 Dimensions

The clear length and width of walkways and working platforms intended for operation and maintenance shall be determined by:

a) the demands of the task e. g. positions, nature and speed of movement, application of force, etc.;

b) whether or not tools, spare parts etc. are being carried;

c) frequency and duration of task and use;