a) MEDC 2 (3039) DTZS/ ISO 12100:2010

Title: Safety of machinery — General principles for design — Risk assessment and risk reduction

Scope: This International Standard specifies basic terminology, principles and a methodology for achieving safety in the design of machinery. It specifies principles of risk assessment and risk reduction to help designers in achieving this objective. These principles are based on knowledge and experience of the design, use, incidents, accidents and risks associated with machinery. Procedures are described for identifying hazards and estimating and evaluating risks during relevant phases of the machine life cycle, and for the elimination of hazards or the provision of sufficient risk reduction. Guidance is given on the documentation and verification of the risk assessment and risk reduction process.

This International Standard is also intended to be used as a basis for the preparation of type-B or type-C safety standards.

It does not deal with risk and/or damage to domestic animals, property or the environment.

NOTE 1 Annex B gives, in separate tables, examples of hazards, hazardous situations and hazardous events, in order to clarify these concepts and assist the designer in the process of hazard identification.

NOTE 2 The practical use of a number of methods for each stage of risk assessment is described in ISO/TR 14121-2.

b) MEDC 2 (3040) DTZS/ ISO/TR 14121-2:2012

Title: Safety of machinery — Risk assessment — Part 2: Practical guidance and examples of methods

Scope: This Technical Report gives practical guidance on conducting risk assessment for machinery in accordance with ISO 12100 and describes various methods and tools for each step in the process. It gives examples of different measures that can be used to reduce risk and is intended to be used for risk assessment on a wide variety of machinery in terms of complexity and potential for harm. Its intended users are those involved in the design, installation or modification of machinery (for example, designers, technicians or safety specialists).

Annex A provides a specific example for a risk assessment and a risk reduction process.

c) MEDC 2 (3041) DTZS/ ISO 14120:2015

Title: Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards

Scope: This International Standard specifies general requirements for the design, construction, and selection of guards provided to protect persons from mechanical hazards.

This International Standard indicates other hazards that can influence the design and construction of guards.

This International Standard applies to guards for machinery which will be manufactured after it is published.

The requirements are applicable if fixed and movable guards are used. This International Standard does not cover interlocking devices. These are covered in ISO 14119.

This International Standard does not provide requirements for special systems relating specifically to mobility such as ROPS (rollover protective structures), FOPS (falling-object protective structures), and TOPS (tip over protective structures) or to the ability of machinery to lift loads.

d) MEDC 2 (3042) DTZS/ ISO 14159:2002

Title: Safety of machinery — Hygiene requirements for the design of machinery

Scope: This International Standard specifies hygiene requirements of machines and provides information for the intended use to be provided by the manufacturer. It applies to all types of machines and associated equipment used in applications where hygiene risks to the consumer of the product can occur.

This International Standard does not cover requirements relative to the uncontrolled egress of microbiological agents from the machine.

e) MEDC 2 (3043) DTZS/ ISO 21469:2006

Title: Safety of machinery — Lubricants with incidental product contact — Hygiene requirements

Scope: This International Standard specifies hygiene requirements for the formulation, manufacture, use and handling of lubricants which, during manufacture and processing, can come into incidental contact (e.g. through heat transfer, load transmission, lubrication or the corrosion protection of machinery) with products and packaging used in the food, food-processing, cosmetics, pharmaceutical, tobacco or animal-feeding-stuffs industries. Included in this document are registration criteria that can be used to assess conformance with this International standard for lubricants with incidental product contact (see Annex B). It is not applicable to substances used as product additives or to those in direct product contact (see Annex A), but confines itself to hygiene without addressing occupational health and safety matters. Nevertheless, it is considered essential that where occupational health and safety is associated with the processes concerned it be considered along with hygiene so that measures satisfying the needs of both can be taken.

f) MEDC 2 (3044) DTZS/ ISO 19353:2019

Title: Safety of machinery — Fire prevention and fire protection

Scope: This document specifies methods for identifying fire hazards resulting from machinery and for performing a risk assessment.

It gives the basic concepts and methodology of protective measures for fire prevention and protection to be taken during the design and construction of machinery. The measures consider the intended use and reasonably foreseeable misuse of the machine.

It provides guidelines for consideration in reducing the risk of machinery fires to acceptable levels through machine design, risk assessment and operator instructions.

This document is not applicable to:

- mobile machinery;

— machinery designed to contain controlled combustion processes (e.g. internal combustion engines, furnaces), unless these processes can constitute the ignition source of a fire in other parts of the machinery or outside of this;

- machinery used in potentially explosive atmospheres and explosion prevention and protection; and

— fire detection and suppression systems that are integrated in building fire safety systems.

It is also not applicable to machinery or machinery components manufactured before the date of its publication.

g) MEDC 2 (3045) DTZS/ ISO 20607:2019

Title: Safety of machinery — Instruction handbook — General drafting principles

Scope: This document specifies requirements for the machine manufacturer for preparation of the safety-relevant parts of an instruction handbook for machinery.

This document:

— provides further specifications to the general requirements on information for use given in ISO 12100:2010, 6.4.5; and

— deals with the safety-related content, the corresponding structure and presentation of the instruction handbook, taking into account all phases of the life cycle of the machine.

NOTE 1 The strategy for risk reduction at the machine is given in ISO 12100:2010, Clause 6, and includes inherently safe design measures, safeguarding and complementary risk reduction measures as well as information for use.

NOTE 2 <u>Annex A</u> contains a correspondence table between ISO 12100:2010, 6.4, and this document.

NOTE 3 Information for conception and preparation of instructions in general is available in IEC/IEEE 82079-1.

This document establishes the principles which are indispensable to provide information on residual risks.

This document does not address requirements for declaration of noise and vibration emissions.

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