

**Pöörd-sisepõlemismootorid. Tagasitõmbevedruga
käivitusseadmed. Üldised ohutusnõuded (ISO
14314:2004)**

Reciprocal internal combustion engines - Recoil starting
equipment - General safety requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 14314:2009 sisaldab Euroopa standardi EN ISO 14314:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.08.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 14314:2009 consists of the English text of the European standard EN ISO 14314:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 19.08.2009.

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English Version

**Reciprocal internal combustion engines - Recoil starting
equipment - General safety requirements (ISO 14314:2004)**

Moteurs alternatifs à combustion interne - Dispositifs de
démarrage à réenrouleur - Exigences générales de sécurité
(ISO 14314:2004)

Hubkolben-Verbrennungsmotoren -
Reversierstarteinrichtung - Allgemeine
Sicherheitsanforderungen (ISO 14314:2004)

This European Standard was approved by CEN on 3 August 2009.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

The text of ISO 14314:2004 has been prepared by Technical Committee ISO/TC 70 "Internal combustion engines" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14314:2009 by Technical Committee CEN/TC 270 "Internal combustion engines" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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

This document supersedes EN ISO 14314:2004.

This European Standard has been prepared under a mandate given to CEN by the Commission of the European Communities and the European Free Trade Association, and supports essential requirements of the EU Machinery Directive (2006/42/EC) and the associated EFTA regulations.

For relationship with EC Directives, see informative Annex ZA and ZB, which are integral parts of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 14314:2004 has been approved by CEN as a EN ISO 14314:2009 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37/EC on machinery.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING - Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Annex ZB (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Introduction

The hierarchy of safety standards in the field of machinery is as follows:

- a) type-A standards (basis safety standards) giving basic concepts, principle for design, and general aspects that can be applied to machinery;
- b) type-B standards (generic safety standards) dealing with one safety aspect or one type of safeguards that can be used across a wide range of machinery;
 - 1) type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
 - 2) type-B2 standards on safeguards (e.g. two-hands controls, interlocking devices, pressure sensitive devices, guards);
- c) type-C standards (machinery safety standards) dealing with detailed safety requirements for a particular machine or group of machines.

This document is a type C standard as stated in EN 1070.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this type C standard.

The concept of re-coil starting systems avoids the two main risks inherent in the use of a loose rope to start Reciprocating Internal Combustion (RIC) engines as follows:

- i) by preventing the rope coming loose from the engine starting pulley, in an uncontrolled manner, at the end of the starting operation and injuring the operator,
- ii) by preventing the operator from being in or coming into contact with any rotating parts of the starting system.

Reciprocal internal combustion engines — Recoil starting equipment — General safety requirements

1 Scope

This International Standard specifies the safety requirements for engine re-coil starting equipment intended for use on RIC engines for land, rail and marine use, excluding engines intended for use to propel road vehicles and aircraft. It may be applied to engines intended for use to propel construction and earth-moving machines and for other applications where no other suitable International Standards exist.

In addition to the technical safety requirements, it also contains the method of checking the adherence to these requirements.

This International Standard only addresses the hazards associated with the installation and operation of re-coil starting equipment.

This International Standard is primarily directed at machines which are manufactured after the date of publication of this International Standard.

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 2710-1, *Reciprocating internal combustion engines — Vocabulary — Part 1: Terms for engine design and operation*

ISO 2710-2, *Reciprocating internal combustion engines — Vocabulary — Part 2: Terms for engine maintenance*

ISO 7967-8, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 8: Starting systems*

EN 292-1, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology*

EN 292-2 and EN 292-2/A1, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications*

EN 1070, *Safety of machinery — Terminology*

EN 1679-1, *Reciprocating internal combustion engines — Safety — Part 1: Compression ignition engines*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2710-1, ISO 2710-2, ISO 7967-8, EN 1070, and the following apply.