

Reciprocating internal combustion engines — Safety —

Part 1: Compression ignition engines

ICS 27.020

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee MCE/14/-/2, RIC engines - Safety.

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This British Standard, having been prepared under the direction of the Engineering Sector Board, was published under the authority of the Standards Board and comes into effect on 15 June 1998

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1: Moteurs à allumage par compression

Hubkolben-Verbrennungsmotoren - Sicherheit - Teil 1:
Dieselmotoren

This European Standard was approved by CEN on 12 January 1998 and includes Amendment 1 approved by CEN on 28 November 2010.

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Foreword

This document (EN 1679-1:1998+A1:2011) has been prepared 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of an identical text or by endorsement, at the latest by July 2011, and conflicting national standards shall be withdrawn at the latest by July 2011.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

A1 For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document. **A1**

This document includes Amendment 1, approved by CEN on 2010-11-28.

This document supersedes EN 1679-1:1998.

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Introduction

A1 This document is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous 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. **A1**

1 Scope

This standard specifies the safety requirements for compression ignition engines and their essential auxiliaries used in all applications on land, underground and water, except engines used to propel road vehicles and aircraft. The special requirements needed to cover operation in potentially explosive atmospheres are not covered in this standard.

The engine in terms of this standard is understood as the prime mover up to its driving extremitie(s) for power take off(s).

The hazards relevant to compression ignition engines are identified in annex A.

A1 *deleted text* **A1**

This standard should be referred to in other standards wherever compression ignition engines are used.

A1 This European Standard is not applicable to compression ignition engines which are manufactured before the date of its publication as EN. **A1**

2 Normative references

A1 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. **A1**

EN Standards

A1 EN 286-1:1998, *Simple unfired pressure vessels designed to contain air or nitrogen — Part 1: Pressure vessels for general purposes* **A1**

A1 *deleted text* **A1**

A1 EN 547-2:1996, *Safety of machinery — Human body measurements — Part 2: Principles for determining the dimensions required for access openings* **A1**

A1 *deleted text* **A1**

EN 953:1997, *Safety of machinery — General requirements for the design and construction of guards (fixed, movable)*

EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and components — Pneumatics*

Ⓐ₁ EN 1175-1:1998, *Safety of industrial trucks — Electrical requirements — Part 1: General requirements for battery powered trucks* Ⓐ₁

Ⓐ₁ EN 1175-2:1998, *Safety of industrial trucks — Electrical requirements — Part 2: General requirements of internal combustion engine powered trucks* Ⓐ₁

Ⓐ₁ EN 1175-3:1998, *Safety of industrial trucks — Electrical requirements — Part 3: Specific requirements for the electric power transmission systems of internal combustion engine powered trucks* Ⓐ₁

Ⓐ₁ EN 1834-1:2000, *Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 1: Group II engines for use in flammable gas and vapour atmospheres* Ⓐ₁

Ⓐ₁ EN 1834-2:2000, *Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 2: Group I engines for use in underground workings susceptible to firedamp and/or combustible dust* Ⓐ₁

Ⓐ₁ EN 1834-3:2000, *Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 3: Group II engines for use in flammable dust atmospheres* Ⓐ₁

Ⓐ₁ EN ISO 3411:2007, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope (ISO 3411:2007)* Ⓐ₁

Ⓐ₁ *deleted text* Ⓐ₁

Ⓐ₁ EN ISO 11102-1:2009, *Reciprocating internal combustion engines — Handle starting equipment — Part 1: Safety requirements and tests (ISO 11102-1:1997)* Ⓐ₁

Ⓐ₁ EN ISO 11102-2:2009, *Reciprocating internal combustion engines — Handle starting equipment — Part 2: Method of testing the angle of disengagement (ISO 11102-2:1997)* Ⓐ₁

Ⓐ₁ EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)* Ⓐ₁

Ⓐ₁ EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)* Ⓐ₁

Ⓐ₁ EN ISO 13732-1:2008, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)* Ⓐ₁

Ⓐ₁ EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)* Ⓐ₁

Ⓐ₁ EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent danger zones being reached by upper and lower limbs (ISO 13857:2008)* Ⓐ₁

Ⓐ₁ EN ISO 14314:2004, *Reciprocal internal combustion engines — Recoil starting equipment — General safety requirements* Ⓐ₁

Ⓐ₁ *deleted text* Ⓐ₁

Ⓐ₁ EN 60034-5:2006, *Rotating electrical machines — Part 5: Degrees of protection provided by integral design of rotating electrical machines (IP code) — Classification (IEC 60034-5:2000)* Ⓐ₁