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Irish Standard I.S. EN 1501-1:2011

Refuse collection vehicles - General requirements and safety requirements -Part 1: Rear loaded refuse collection vehicles

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# EN 1501-1

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**English Version** 

# Refuse collection vehicles - General requirements and safety requirements - Part 1: Rear loaded refuse collection vehicles

Bennes de collecte des déchets - Exigences générales et exigences de sécurité - Partie 1: Bennes à chargement arrière Abfallsammelfahrzeuge und die dazugehörigen Schüttungen - Allgemeine Anforderungen und Sicherheitsanforderungen - Teil 1: Hecklader

This European Standard was approved by CEN on 11 June 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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EN 1501-1:2011 (E)

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### Foreword

This document (EN 1501-1:2011) has been prepared by Technical Committee CEN/TC 183 "Waste management", 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of an identical text or by endorsement, at the latest by February 2012, and conflicting national standards shall be withdrawn at the latest by February 2012.

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 1501-1:1998+A2:2009.

This document 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).

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

This document and EN 1501-5:2011 which covers the requirements for the lifting devices supersedes EN 1501-1:1998+A2:2009.

The requirements for the lifting devices are covered by EN 1501-5:2011.

The minimum essential criteria are considered to be of primary importance in providing safe, serviceable, economical, and practical rear loaded refuse collection vehicles.

This European Standard is one part of the series of co-ordinated standards of EN 1501 about "Refuse collection vehicles" comprising the following parts:

- Part 1: Rear loaded refuse collection vehicles
- Part 2: Side loaded refuse collection vehicles
- Part 3: Front loaded refuse collection vehicles
- Part 4: Noise test code for refuse collection vehicles
- Part 5: Lifting devices for refuse collection vehicles

This European Standard is the revision of the first one of the series of standards dealing with specification, design, safety and testing of refuse collection vehicles (RCVs).

Technical changes with respect to the previous edition, EN 1501-1:1998+A2:2009, address:

- definitions and requirements for lifting devices deleted (moved and improved in the separate part 5);
- terms and definitions improved, including through detailed drawings, with trilingual glossary deleted;
- references to types A and B standards updated, especially safety categories replaced with performance levels;
- requirements improved for: open and closed systems, guards and protective devices, footboards;

- new requirements for: narrow vehicle, loading edge, remote controls, stability, vibrations, interchangeable body, warning signals;
- table of verification merged with table of hazards;
- items to be described in the information for use manual.

This part 1 of the series of standards shall be enforced at the same time as part 5 of this series whenever the rear loaded RCV is fitted with (a) lifting device(s).

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, Croatia, 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.

EN 1501-1:2011 (E)

### Introduction

This European Standard is a type C standard as stated in EN ISO 12100:2010.

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

The user's attention is drawn to the possibility that for refuse collection vehicles described within EN 1501-1, compliance with this European Standard may require the use of an invention covered by patent rights.

By publication of this part of EN 1501, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. However, each patent holder listed in this annex has filed with the CEN-European Committee for Standardisation a statement of willingness, to grant a licence under such rights that they hold on reasonable and non-discriminatory terms and conditions to applicants desiring to obtain such a licence.

Information regarding patents related to the reverse limitation for the RCV with occupied footboard can be obtained from:

GEESINK B.V. Betonweg 8 P.O. Box 52 8300 AB Emmeloord NETHERLANDS

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.

While producing this European Standard it was assumed that:

- the guidelines issued by the chassis-cab manufacturer have been taken into account;
- components without specific requirements are designed in accordance with the usual engineering practice and calculation codes, including all failure modes, of sound mechanical and electrical construction and made of materials with adequate strength and of suitable quality;
- components are kept in good repair and working order, so that the required characteristics remain despite wear;
- harmful materials, such as asbestos, are not used as part of the rear loaded RCV;
- only persons who have been appropriately trained will operate the rear loaded RCV.

This European Standard is designed for careful consideration by designers, manufacturers, suppliers and users of rear loaded RCVs.

#### 1 Scope

This European Standard applies to rear loaded refuse collection vehicles (RCV), as defined in 3.2.

This European Standard deals with all significant hazards, hazardous situations and events relevant to the rear loaded RCV, when it is used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer, throughout its foreseeable lifetime, as defined in Clause 4.

This European Standard is applicable to the design and construction of the rear loaded RCV so as to ensure that it is fit for its function and can be operated, adjusted and maintained during its entire lifetime. It is not applicable to the end of life of the rear loaded RCV.

This part 1 describes and defines the safety requirements of rear loaded RCVs excluding the interface tailgate/discharge door with the lifting device(s) and the lifting device(s) as illustrated in Figure A.1.

Safety requirements for the lifting device(s) and the interface with the tailgate/discharge door are defined in EN 1501-5.

This European Standard is not applicable to:

- operation in severe conditions, e.g. extreme environmental conditions such as:
  - below 25 °C and above + 40 °C temperatures;
  - tropical environment;
  - wind velocity in excess of 75 km/h;
- contaminating environment;
- corrosive environment;
- operation in potentially explosive atmospheres;
- handling of loads the nature of which could lead to dangerous situations (e.g. hot wastes, acids and bases, radioactive materials, contaminated waste, especially fragile loads, explosives);
- operation on ships.

This European Standard is not applicable to machinery which is manufactured before the date of publication of this document by CEN.

#### 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.

EN 349:1993+A1:2008, Safety of machinery — Minimum gaps to avoid crushing of parts of the human body

EN 547-1:1996+A1:2008, Safety of machinery — Human body measurements — Part 1: Principles for determining the dimensions required for openings for whole body access into machinery

EN 547-2:1996+A1:2008, Safety of machinery — Human body measurements — Part 2: Principles for determining the dimensions required for access openings



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