



National Standards Authority of Ireland

STANDARD

I.S. EN 14010:2004

ICS 33.100.01
53.020.99
53.080

**SAFETY OF MACHINERY - EQUIPMENT FOR
POWER DRIVEN PARKING OF MOTOR
VEHICLES - SAFETY AND EMC
REQUIREMENTS FOR DESIGN,
MANUFACTURING, ERECTION AND
COMMISSIONING STAGES**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
April 14, 2004*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2004

Price Code Q

Údarás um Chaighdeán Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14010

December 2003

ICS 33.100.01; 53.020.99; 53.080

English version

**Safety of machinery - Equipment for power driven parking of
motor vehicles - Safety and EMC requirements for design,
manufacturing, erection and commissioning stages**

Sécurité des machines - Dispositif de stationnement
motorisé des véhicules automobiles - Exigences
concernant la sécurité et la CEM pour les phases de
conception, construction, montage et mise en service

Sicherheit von Maschinen - Kraftbetriebene
Parkeinrichtungen für Kraftfahrzeuge - Sicherheits- und
EMV-Anforderungen an Gestaltung, Herstellung,
Aufstellung und Inbetriebnahme

This European Standard was approved by CEN on 1 October 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword	3
Introduction	4
1 Scope	4
2 Normative references	5
3 Terms and definitions	8
4 List of significant hazards	10
5 Safety and EMC requirements and/or safety measures	16
5.1 General	16
5.2 Control devices and equipment used for safety purposes	16
5.3 Electrical equipment	22
5.4 Hydraulic systems and hydraulic equipment	23
5.5 Load carrier	25
5.6 Lifting elements	26
5.7 Transmission elements	29
5.8 Non-automatic horizontally moving parking equipment in areas accessible to the user	29
5.9 Safety devices for non-automatic horizontally moving parking equipment	31
5.10 Non-automatic vertically moving parking equipment in areas accessible to the user	31
5.11 Automatic parking equipment	32
5.12 Design of the transfer area	39
6 VERIFICATION OF SAFETY AND EMC REQUIREMENTS AND/OR MEASURES	40
6.2 Special verification	45
6.3 Type testing	46
7 Information for use	46
7.1 Instruction handbook	46
7.2 Marking	49
Annex A (normative) Design criteria	51
Annex B (informative) Automatic parking equipment	52
Annex C (normative) Design criteria	53
Annex ZA (informative) Relationship of this document with EC Directives	55
Annex ZB (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	56
Bibliography	57

Foreword

This document (EN 14010:2003) has been prepared by Technical Committee CEN /TC 98, "Lifting platforms", 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 June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

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 Annexes ZA and ZB, which are an integral part of this document.

Annexes A, Ca and Cb are normative. Annex B is informative.

This document includes a Bibliography.

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

EN 14010:2003 (E)

Introduction

This European Standard is a "Type C" Standard as 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 producing this standard it was assumed that

- negotiation will take place between the manufacturer and the purchaser of the parking equipment/systems, concerning particular conditions for the use and places of use for the equipment/system, related to health, safety and environmental conditions;
- erection, commissioning and testing will be carried out by suitably trained persons;
- only legal drivers of vehicles will use the equipment/system;
- no vehicles in excess of the rated load or otherwise unsuitable (see clause 1), will use the equipment/system;
- persons will not be lifted or transported by the machinery;
- the machinery and its components will be kept in good repair and working order in accordance with the manufacturers instructions, to retain specified safety characteristics throughout the intended working life of the machinery;
- by design of the load bearing elements, safe operation of the machinery will be assured for loading ranging from zero to 100% of the rated capacities and during the loaded tests (see 6.1f);
- harmful materials, such as asbestos are not used as part of the machine;
- all parts of the equipment/system without specific requirements will be:
 - 1) designed in accordance with the usual engineering practice and design codes, using appropriate safety factors, taking account of all relevant forces, loads and failure modes;
 - 2) of sound mechanical and electrical construction;
 - 3) made from materials of adequate strength and durability and of suitable quality for their intended purpose.

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 other standards, for machines that have been designed and built according to the provisions of this type C standard.

1 Scope

1.1 This European Standard **deals with** the technical requirements to minimise the risks due to the hazards listed in clause 4, which can arise during installation¹, operation and maintenance of permanently installed equipment and systems for the power driven parking of motor vehicles, as defined in 3.1 to 3.4 below. Requirements are also given on the provision of information for use, which includes requirements for the drafting of the instructions. Electromagnetic compatibility requirements are also covered.

¹ When carried out by or on behalf of the purchaser

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-