AS 5124:2017

Australian STANDARD

Safety of machinery—Equipment for power driven parking of motor vehicles—Safety and EMC requirements for design, manufacturing, erection and commissioning stages (EN 14010:2003, MOD)

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- Australasian Fire and Emergency Service Authorities Council
- Australian Industry Group
- CIBSE ANZ
- Consult Australia
- Fire Protection Association Australia
- Insurance Council of Australia
- Master Builders Australia
- Property Council of Australia
- WorkSafe Victoria

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Australian Standard®

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-089, Mechanical Parking Devices.

The objective of this Standard is to provide requirements for the safe design, installation and servicing of car storage devices.

This Standard is an adoption with national modifications and has been reproduced from EN 14010:2003+A1:2009, *Safety of machinery—Equipment for power driven parking of motor vehicles—Safety and EMC requirements for design, manufacturing, erection and commissioning stages*, and has been varied as indicated to take account of Australian conditions. The modifications are listed in Appendix ZZ. Amendment A1 2009 is incorporated in the text of EN 14010 and designated A1. Appendix ZX provides additional guidance for the fire risk of the installation and operation of automatic, semi-automatic and manual operation systems for power-driven parking of motor vehicles (car stackers).

As this Standard is reproduced from a European Standard, the following applies:

(a) In the source text 'this European Standard' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

None of the normative references in the source document have been adopted as Australian or Australian/New Zealand Standards.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex or appendix to which they apply. A 'normative' annex or appendix is an integral part of a Standard, whereas an 'informative' annex or appendix is only for information and guidance.

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FOREWORD

This document (EN 14010:2003+A1:2009) 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 January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

This document includes Amendment 1, approved by CEN on 2009-06-19.

This document supersedes EN 14010:2003.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A1 A1].

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).

[A1] For relationship with EU Directive(s), see informative Annexes ZA, ZB and ZC, which are integral parts of this document. [A1]

Annexes [A1] A and C [A1] 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, 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 United Kingdom.

INTRODUCTION

[A1] This European Standard is a type C standard as stated in EN ISO 12100-1:2003. [A1]

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.

1.2 This European Standard applies to equipment and systems for the power driven parking of motor vehicles which have four wheels, are within a maximum size envelope of 5,30 m long, by 2,30 m wide, by 2,20 m high and have a mass less than 2500 kg. The equipment can be manually or automatically controlled.

1.3 This standard does not cover:

a) vehicle lifts (see EN 1493);

b) peripheral devices, which do not handle motor vehicles, e.g. parking meters, ticket machines;

c) requirements related to the building even if they support directly stored vehicles;

d) goods only lifts in accordance with EN 81-31;

e) power driven parking equipment intended for lifting and/or transporting any person;

f) transmission and interface of remote controls;

g) automatic parking equipment with transfer areas which move;

h) the use of power driven parking equipment by wheelchair users and deaf persons;

i) the workplace of any attendant.

1.4 This standard does not deal with the following:

a) hazards arising if loads, or other items fall from vehicles;

b) hazards arising if fuel or oil leaks from vehicles;

c) hazards caused by operating the equipment/system in electromagnetic fields outside the range of EN 61000-6-2;

d) hazards caused by operating the equipment/system in areas subject to special regulations (e.g. explosive atmospheres fire risks);

e) hazards caused by the use of dangerous/toxic materials, e.g. special hydraulic oil;

f) hazards caused by noise;

g) hazards arising from inadequate lighting of the surrounding of automatic parking systems and/or the place of installation of non-automatic parking equipment;

h) hazards caused by earthquakes;

i) hazards caused by vandalism;

j) hazards due to the use of programmable electronic systems related to safety functions;

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[1] When carried out by or on behalf of the purchaser

