BS ISO 17842-1:2015

BSI Standards Publication

Safety of amusement rides and amusement devices

Part 1: Design and manufacture

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This British Standard is the UK implementation of ISO 17842-1:2015.

The UK participation in its preparation was entrusted to Technical Committee MCE/3/4, Fairground and amusement park machinery and structures - Safety.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Safety of amusement rides and amusement devices —

Part 1:
Design and manufacture

Sécurité des manèges et des dispositifs de divertissement —

Partie 1: Conception et fabrication

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The committee responsible for this document is ISO/TC 254, *Safety of amusement rides and amusement devices*.

ISO 17842 consists of the following parts, under the general title *Safety of amusement rides and amusement devices*:

— *Part 1: Design and manufacture*

— *Part 2: Operation and use*

— *Part 3: Requirements for inspection during design, manufacture, operation and use*

INTERNATIONAL STANDARD ISO 17842-1:2015(E)

Safety of amusement rides and amusement devices —

Part 1:
Design and manufacture

1 Scope

This part of ISO 17842 specifies the minimum requirements necessary to ensure the safe design, calculation, manufacture, and installation of the following: mobile, temporary or permanently installed machinery and structures, e.g. roundabouts, swings, boats, Ferris wheels, roller coasters, chutes, grandstands, membrane or textile structures, booths, stages, side shows, and structures for artistic aerial displays. The above items, hereafter called *amusement devices* or simply "devices", are intended to be installed both repeatedly without degradation or loss of integrity, and temporarily or permanently in fairgrounds and amusement parks or any other locations. Fixed grandstands, construction site installations, scaffolding, removable agricultural structures and simple coin operated children's amusement devices intended for up to 3 children are not covered by this document.

Nevertheless this document can be used in the design of any similar structural or passenger-carrying device not explicitly mentioned herein.

Existing national rules on workers' safety are not concerned by this document.

This document is applicable to amusement devices and major modifications of amusement devices and rides manufactured after the effective date of its publication.

ISO 17842-3 contains requirements for inspection during design, manufacture, operation and use.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 288-9, *Specification and approval of welding procedures for metallic materials — Part 9: Welding procedure test for pipeline welding on land and offshore site butt welding of transmission pipelines*

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

ISO 1141, *Fibre ropes — Polyester — 3-, 4-, 8- and 12-strand ropes*

ISO 1181, *Fibre ropes — Manila and sisal — 3-, 4- and 8-strand ropes*

ISO 1346, *Fibre ropes — Polypropylene split film, monofilament and multifilament (PP2) and polypropylene high-tenacity multifilament (PP3) — 3-, 4-, 8- and 12-strand ropes*

ISO 2307, *Fibre ropes — Determination of certain physical and mechanical properties*

ISO 3834-1, *Quality requirements for fusion welding of metallic materials — Part 1: Criteria for the selection of the appropriate level of quality requirements*

ISO 3834-3, *Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements*

ISO 4014, *Hexagon head bolts — Product grades A and B*