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Cranes — Anchoring devices for in-service and out-of-service conditions

Appareils de levage à charge suspendue — Dispositifs d'ancrage dans des conditions en service et hors service

Reference number
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Foreword

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This document was prepared by Technical Committee ISO/TC *96*, *Cranes*, Subcommittee SC 9, *Bridge and gantry cranes*.

This first edition of ISO 12210 cancels and replaces ISO 12210-1:1998, ISO 12210-4:1998 and ISO 12210-5, which have been technically revised.

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Cranes — Anchoring devices for in-service and out-of-service conditions

1 Scope

This document provides specific requirements for anchoring devices for in-service and out-of-service conditions for cranes and crane parts as defined in ISO 4306-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 4302, *Cranes — Wind load assessment*

ISO 4306-1, *Cranes — Vocabulary — Part 1: General*

ISO 8686 (all parts), *Cranes — Design principles for loads and load combinations*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4306-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
anchoring device
devices which should be actuated when the wind velocity exceeds the in-service design value to prevent crane or its parts from undesirable motion

Note 1 to entry: When storm wind is expected, anchoring devices should be used to hold the crane or its parts at a certain position in advance.

EXAMPLE Anchoring devices include rail clamps, rail brakes, wheel brakes, braking wedges, boom latches, anchor pins, tie-downs and, etc.

4 Design requirements

4.1 Anchoring devices should withstand the forces applied to them by the crane, taking account of dead and live loads, wind and other environmental factors. Anchoring devices shall be in accordance with the requirements of ISO 4302 and the ISO 8686 series.

The holding action of the anchoring devices should not require continuous power supply.

4.2 Such devices should be provided to ensure the position and movement of the crane and appropriate crane parts is controlled in the following conditions:

a) crane is out-of-service and anchored;

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