INTERNATIONAL STANDARD

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Tower cranes — Stability requirements

Grues à tour — Exigences relatives à la stabilité

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 12485 was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 7, *Tower cranes*.

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Tower cranes — Stability requirements

1 Scope

This International Standard specifies the conditions to be met when verifying, by calculation, the stability of a tower crane, as defined in ISO 4306-3, that is subject to tipping and drifting; it assumes that the crane is standing on a firm, level supporting surface or track.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of the publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4302:1981, *Cranes — Wind load assessment.*

ISO 4306-3:1991, *Cranes — Vocabulary — Part 3: Tower cranes.*

ISO 8686-3:—[1], *Cranes — Design principles for loads and load combinations — Part 3: Tower cranes.*

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 4306-3 apply.

4 Stability

4.1 Calculations

4.1.1 A crane is said to be stable when the algebraic sum of the stabilizing moments is greater than or equal to the sum of the overturning moments.

4.1.2 Calculations shall be made to verify the stability of the crane by computing the sum of the overturning moments using the values given in table 1.

1) To be published.