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Cranes — Design principles for loads and load combinations —

Part 5 : Overhead travelling and portal bridge cranes

Appareils de levage à charge suspendue — Principes de calcul des charges et des combinaisons de charge —

Partie 5 : Ponts roulants et ponts portiques



Reference number
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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 8686-5 was prepared by Technical Committee ISO/TC 96, *Cranes*, Sub-Committee SC 9, *Bridge and gantry cranes*.

ISO 8686 consists of the following parts, under the general title *Cranes — Design principles for loads and load combinations*:

- *Part 1: General*
- *Part 2: Mobile cranes*
- *Part 4: Jib cranes*
- *Part 5: Overhead travelling and portal bridge cranes*

The design principles for loads and load combinations of tower cranes will form the subject of ISO 8686-3.

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Cranes — Design principles for loads and load combinations —

Part 5: Overhead travelling and portal bridge cranes

1 Scope

This part of ISO 8686 establishes the application of ISO 8686-1 to overhead travelling and portal bridge cranes as defined in ISO 4306-1, and gives specific values for the factors to be used.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8686. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8686 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 4306-1 : 1990, *Cranes — Vocabulary — Part 1: General*.

ISO 4310 : 1981, *Cranes — Test code and procedures*.

ISO 8306 : 1985, *Cranes — Overhead travelling cranes and portal bridge cranes — Tolerances for cranes and tracks*.

ISO 8686-1 : 1989, *Cranes — Design principles for loads and load combinations — Part 1: General*.

3 Definitions

For the purposes of this part of ISO 8686, the definitions given in ISO 8686-1 apply

4 Symbols

The symbols used in this part of ISO 8686 are defined in ISO 8686-1.

5 Application of ϕ factors

5.1 The numerical values for different ϕ factors are given in table 1.