

INTERNATIONAL STANDARD

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Cranes — Classification —

Part 5:

Overhead travelling and portal bridge cranes

Appareils de levage à charge suspendue — Classification —

Partie 5: Ponts roulants et ponts portiques



Reference number
ISO 4301-5:1991(E)

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 4301-5 was prepared by Technical Committee ISO/TC 96, *Cranes*, Sub-Committee SC 9, *Bridge and gantry cranes*.

ISO 4301 consists of the following parts, under the general title *Cranes — Classification*:

- *Part 1: General*
- *Part 2: Mobile cranes*
- *Part 3: Tower cranes*
- *Part 4: Jib cranes*
- *Part 5: Overhead travelling and portal bridge cranes*

Cranes — Classification —

Part 5:

Overhead travelling and portal bridge cranes

1 Scope

This part of ISO 4301 establishes the classification of overhead travelling cranes and portal bridge cranes based on the number of operating cycles to be carried out during the expected life of the appliance and its mechanisms, and a load spectrum factor which represents the nominal state of loading.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 4301. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 4301 are encouraged to investigate the possibility of applying the most recent edi-

tion of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4301-1:1986, *Cranes and lifting appliances — Classification — Part 1: General*.

3 Classification

The crane as a whole and its mechanisms shall be classified in accordance with ISO 4301-1.

Guidance as to typical classifications for overhead travelling cranes and portal bridge cranes in relation to usage is given in table 1.

Where the class of utilization and state of loading are not known, the classification should be regarded as a minimum.

Table 1 — Guidance on classification of overhead travelling cranes and portal bridge cranes and their mechanisms in relation to crane usage

No.	Usage of crane	Service conditions	Group classification of the appliance as a whole	Group classification of the mechanism as a whole		
				Hoist	Trav- ersing	Travel- ling
1	Manually powered crane		A1	M1	M1	M1
2	Workshop crane for assembly purposes		A1	M2	M1	M2
3 a)	Power house crane		A1	M2	M1	M3
3 b)	Maintenance crane		A1	M3	M1	M2
4 a)	Workshop crane	Regular light use	A2	M3	M2	M3
4 b)	Workshop crane	Regular intermittent use	A3	M4	M3	M4
4 c)	Workshop crane	Intensive use	A4	M5	M3	M5
5 a)	Cranes in storage yards	Regular light use, hook duty	A3	M3	M2	M4
5 b)	Cranes in storage yards	Intensive use, grab or magnet duty	A6	M6	M6	M6
6 a)	Scrapyard crane	Regular light use, hook duty	A3	M4	M3	M4
6 b)	Scrapyard crane	Regular intermittent use, magnet or grab duty	A6	M6	M5	M6
7	Ship unloader		A7	M8	M6	M7
8 a)	Container handling crane		A5	M6	M6	M6
8 b)	Ship-to-shore container crane		A5	M6	M6	M4
9	Steelwork crane:					
9 a)	Roll changing crane		A2	M4	M3	M4
9 b)	Ladle crane		A7	M8	M6	M7
9 c)	Soaking pit crane		A7	M8	M7	M7
9 d)	Stripper crane		A8	M8	M8	M8
9 e)	Charging crane		A8	M8	M8	M8
10	Foundry crane		A5	M5	M4	M5

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