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**Cranes — Classification —**

**Part 2:  
Mobile cranes**

*Appareils de levage à charge suspendue — Classification —  
Partie 2: Grues mobiles*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 4301-2 was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 6, *Mobile cranes*.

This second edition cancels and replaces the first edition (ISO 4301-2:1985), which has been technically revised.

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*

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# Cranes — Classification —

## Part 2: Mobile cranes

### 1 Scope

This part of ISO 4301 establishes a system of classification for mobile cranes and related crane mechanisms, based on the number of operating cycles to be carried out during a crane's expected life, representing a nominal state of loading.

It is applicable to the basic types of self-propelled mobile crane and their parts as defined in ISO 4306-2.

### 2 Normative references

The following referenced documents are indispensable for the application 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 4301-1, *Cranes and lifting appliances — Classification — Part 1: General*

ISO 4306-2, *Cranes — Vocabulary — Part 2: Mobile cranes*

ISO 4308-2, *Cranes and lifting appliances — Selection of wire ropes — Part 2: Mobile cranes — Coefficient of utilization*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4301-1 and ISO 4306-2 apply.

### 4 Classification

The classification by group of mobile cranes and their mechanisms shall be in accordance with Table 1.

Table 1 — Classification of mobile cranes

Crane operating condition	Service condition	Group classification of equipment as whole	Group classification of mechanism as whole					
			Hoist	Slew	Luff	Telescoping	Travel (at work site only)	
							Wheel-mounted	Crawler-mounted
General hook duties — not used for continuous service	Light use	A1	M3	M2	M2	M1	M1	M1
	Intermittent use	A2	M4	M3	M3	M2	M1	M2
	Intensive use	A3	M5	M4	M4	M3	M1	M2
Equipped with bucket, grapple or magnet	Regular intermittent use	A3	M4	M3	M3	M2	M1	M2
	Intensive use	A4	M5	M4	M4	M3	M1	M2
Heavy-duty (e.g. container handling or general dock service)	Regular intermittent use	A4	M5	M4	M3	M1 <sup>a</sup>	M1	M2
	Regular intermittent use	A4	M5	M4	M3	M3	M1	M2
	Intensive use	A5	M6	M5	M4	M4	M1	M2
The classifications presented here do not relate to the $Z_p$ values for ropes or to $d$ values for drum and sheave ratio.								
<sup>a</sup> The telescoping function is not performed with a suspended load.								