
**Earth-moving machinery — Methods of
measuring the masses of whole
machines, their equipment and
components**

*Engins de terrassement — Méthodes de mesure des masses des
engins de terrassement complets, de leurs équipements et de leurs
organes constitutifs*

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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 6016 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 1, *Test methods relating to safety and machine performance*.

This third edition cancels and replaces the second edition (ISO 6016:1998), which has been technically revised.

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Earth-moving machinery — Methods of measuring the masses of whole machines, their equipment and components

1 Scope

This International Standard specifies methods for measuring the masses of whole earth-moving machines, their equipment, attachments or components, using weighbridges or force transducers. It also defines the terms related to these masses.

It is applicable to earth-moving machinery as defined in ISO 6165.

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 6165:2006, *Earth-moving machinery — Basic types — Identification and terms and definitions*

ISO 9248:1992, *Earth-moving machinery — Units for dimensions, performance and capacities, and their measurement accuracies*

3 Terms and definitions

[ISO 6016:2008](https://standards.iteh.ai/catalog/standards/iso/6016:2008)

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For the purposes of this document, the following terms and definitions apply.

3.1 General definitions

3.1.1

base machine

machine with a cab or canopy and operator-protective structures if required, without equipment or attachments but possessing the necessary mounting for such equipment and attachments

NOTE For an example, see Figure 1.

3.1.2

equipment

set of components mounted onto the base machine that allows an attachment to perform the primary design function of the machine

NOTE For examples, see Figure 1.

3.1.3

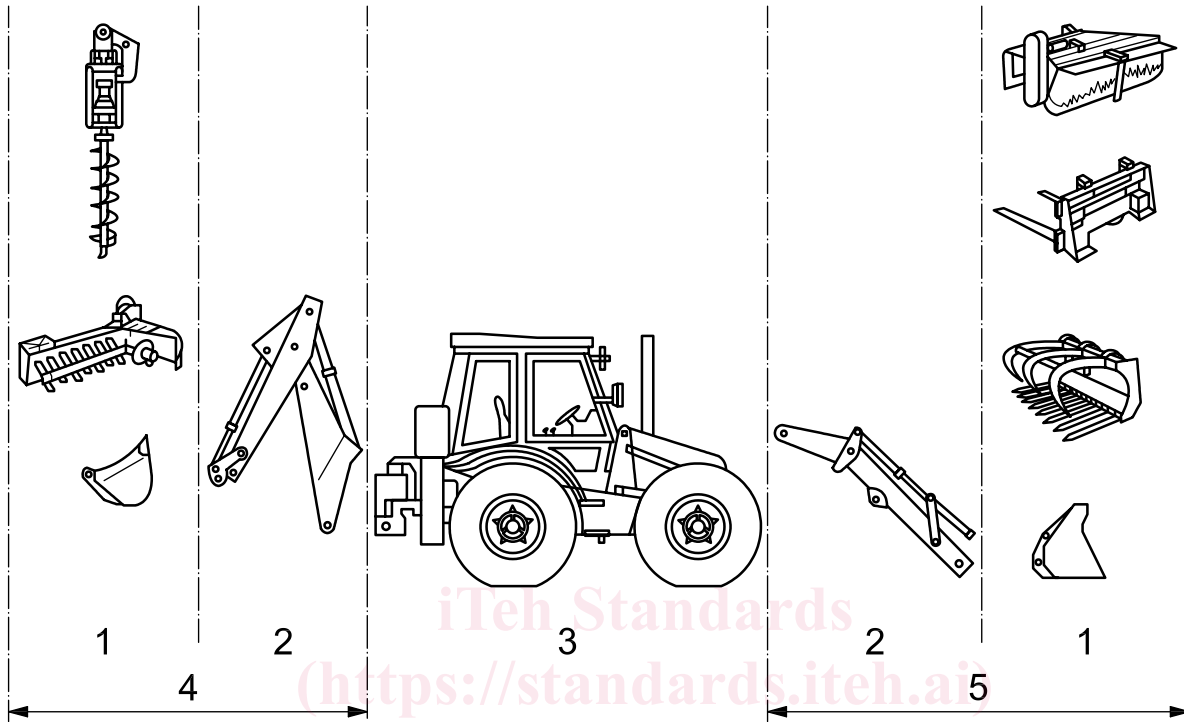
optional equipment

optional components mounted onto the base machine or equipment to increase, for example, capacity, flexibility, or enhance comfort

3.1.4 attachment

assembly of components that can be mounted onto the base machine or equipment for specific use

NOTE For examples, see Figure 1.



Key

- 1 attachment
- 2 equipment
- 3 base machine
- 4 backhoe portion
- 5 loader portion

NOTE This illustration of a loader, its equipment and attachments, is given by way of example only. Equipment and attachments can differ from one machine to another and between machine types. Some base machines can be fitted directly with an attachment (e.g. a grader with a dozer blade).

Figure 1 — Base machine, equipment and attachments

3.1.5 component

part, or assembly of parts, of a base machine, equipment or attachment

3.1.6 ballast

removable weight added to the base machine or equipment as specified by the manufacturer, which is used to increase machine performance, e.g. stability, traction or compaction

NOTE Ballast can be added through the use of weights on wheels, frames or axles, counterweights, liquid-filled tyres, or compartments to be filled with water, sand or iron parts.

3.1.7 left-hand [right-hand] side

side defined when the machine is oriented towards its primary direction of travel