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**Earth-moving machinery — Hour meters**

*Engins de terrassement — Enregistreurs horaires*

**iTeh STANDARD PREVIEW**  
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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.

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International Standard ISO 12511 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 3, *Operation and maintenance*.

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# Earth-moving machinery — Hour meters

## 1 Scope

This International Standard specifies the meters used to measure the amount of time an earth-moving machine has been operated.

It is applicable to earth-moving machinery as defined in ISO 6165, but does not mandate the use of hour meters on any earth-moving machine.

## 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 12511:1997  
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ISO 6165:1997, *Earth-moving machinery — Basic types — Vocabulary*.

## 3 Definitions

For the purposes of this International Standard, the definitions given in ISO 6165 and the following definition apply.

**3.1 hour meter:** System used to measure the total amount of time an engine-powered machine has been in use.

NOTE — It includes the metering device and all actuating devices.

## 4 General requirements

**4.1** The hour meter shall be actuated when the engine is started and continue to remain actuated until the engine is stopped.

**4.2** The hour meter shall record actual operating hours. It shall not give any weighting to the speed at which the engine is rotating.

**4.3** The hour meter shall be capable of operating between 9 V and 16 V d.c. for 12-V systems and 18 V and 32 V d.c. for 24-V systems.

**4.4** The hour meter components shall be capable of operating at temperatures between  $-40\text{ }^{\circ}\text{C}$  and  $+85\text{ }^{\circ}\text{C}$ , except for those components mounted on the engine which shall be capable of operating at temperatures up to  $+165\text{ }^{\circ}\text{C}$ .

- 4.5** The hour meter shall have an accuracy of 2 % at temperatures between – 20 °C and + 60 °C.
- 4.6** The hour meter shall provide a digital or analog read-out from 0 h to 9 999,9 h as a minimum.
- 4.7** The hour meter shall be capable of operating in the environment it is exposed to, as mounted on a machine in normal working conditions.
- 4.8** The reading of the hour meter shall not be susceptible to alteration.
- 4.9** Disconnection of the hour meter shall not be possible without special maintenance tools.
- 4.10** The hour meter shall be in a readily visible location.

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**Descriptors:** earth-moving equipment, hour meters, specifications.

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