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Earth-moving machinery — Service instrumentation

AS ISO 6012:2021

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Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
Department of Natural Resources, Mines and Energy, Qld
Department of Regional NSW
Engineers Australia
Institute of Instrumentation, Control and Automation Australia
Minerals Council of Australia
Mining Electrical and Mining Mechanical Engineering Society
University of Queensland

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Earth-moving machinery – Service instrumentation

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Preface

This Standard was prepared by the Standards Australia Committee ME-063, Earthmoving Equipment.

The objective of this document is to ensure that earth-moving machines be designed with proper accessibility and necessary connections in order to make it possible to perform these checks in an easy way, using portable instruments. This document sets forth, for guidance, a list of diagnostic instruments to check earth-moving machinery at the work-site.

This document applies to crawler and wheel tractors, crawler and wheel loaders and hydraulic excavators, but can be easily extended to apply to other basic earth-moving machines such as graders, tractor scrapers and dumpers.

This document is identical with, and has been reproduced from, ISO 6012:1997, *Earth-moving machinery — Service instrumentation*.

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this International Standard" should read "this document".

(b) A full point substitutes for a comma when referring to a decimal marker.

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The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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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 6012 was prepared by Technical Committee ISO/TC 127 *Earth-moving machinery*.

This fourth edition cancels and replaces the third edition (ISO 6012:1989), which has been technically revised.

Australian Standard®

Earth-moving machinery — Service instrumentation

1 Scope

This International Standard sets forth, for guidance, a list of diagnostic instruments to check earth-moving machinery at the work-site.

The main purpose of this International Standard is to ensure that earth-moving machines be designed with proper accessibility and necessary connections in order to make it possible to perform these checks in an easy way, using portable instruments.

NOTES

1 Service instruments use of which involves major machine disassemblies or which are more suitable for use in the workshop are purposely excluded from this list.

2 Diagnostic checks are intended to be carried out by qualified personnel. Relevant specifications and instructions should therefore be included, preferably in the service manual, rather than in the operator's manual.

This International Standard applies to crawler and wheel tractors, crawler and wheel loaders and hydraulic excavators, but can be easily extended to apply to other basic earth-moving machines such as graders, tractor scrapers and dumpers.

2 Types of checks, instruments and scales

Table 1 specifies the corresponding instruments for each check. The letters in table 1 have the following meanings:

A: definitely required (when the machine uses these basic elements),

B: desirable, but not definitely required.

The instrument specified for each type of check has been selected from among those most commonly used. Other more sophisticated devices or instruments, if any, can be used as alternatives.

The instrument values or ranges presented in table 1 are intended to be indicative only and may change with technological progress.