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Australian STANDARD®

STANDARDS Australia

Earth-moving machinery — Lift capacity of pipelayers and wheeled tractors or loaders equipped with side boom



AS ISO 8813:2021

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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 provide a uniform method of calculating, and a test method for validating, rated lift capacity as presented in commercial literature for pipelayers and wheeled tractors or loaders equipped with a vertical-only pivoted, hydraulic or mechanically operated, side boom.

This document applies to machines having a lift capacity greater than 10 000 N when used in lifting applications. It includes pipelayers as defined in ISO 6165 and AS ISO 7136:2021, and wheeled tractors and loaders as defined in ISO 6165, AS ISO 6747:2021 and AS ISO 7131:2021.

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1) Delete as applicable.

2) Delete as applicable.

3) Delete as applicable.

4) See 5.7.

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 8813 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Sub-Committees SC 1, *Test methods relating to machine performance*, and SC 2, *Safety requirements and human factors.*

Annex A of this International Standard is for information only.

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Australian Standard®

Earth-moving machinery — Lift capacity of pipelayers and wheeled tractors or loaders equipped with side boom

1 Scope

This International Standard provides a uniform method of calculating, and a test method for validating, rated lift capacity as presented in commercial literature for pipelayers and wheeled tractors or loaders equipped with a vertical-only pivoted, hydraulic or mechanically operated, side boom. The rated lift capacity considers hoist mechanism limits, tipping loads and rope factor. After the lift capacity has been calculated and validated, a reduction factor is applied to establish the rated lift capacity for the specific pipelayer or wheeled machine configuration.

This International Standard applies to machines having a lift capacity greater than 10 000 N when used in lifting applications. It includes pipelayers as defined in ISO 6165 and ISO 7136, and wheeled tractors and loaders as defined in ISO 6165, ISO 6747 and ISO 7131.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were 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 editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6016:1982, *Earth-moving machinery — Methods of measuring the masses of whole machines, their equipment and components.*

ISO 6165:1987, *Earth-moving machinery — Basic types — Vocabulary.*

ISO 6747:1988, *Earth-moving machinery — Tractors — Terminology and commercial specifications.*

ISO 7131:1984, *Earth-moving machinery — Loaders — Terminology and commercial specifications.*

ISO 7136:1986, *Earth-moving machinery — Pipelayers — Terminology and commercial specifications.*

ISO 9248[1)], *Earth-moving machinery — Units for dimensions, performance and capacities, and their measurement accuracies.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1
load
External force including the weight of attaching equipment applied at the load hook. See figures 1 and 2.

3.2
lift point line
Vertical line through the centre of the load hook.

3.3
outrigger
Extendable or fixed arm attached to the base machine which rests on the supporting surface and defines the tipping line. See figures 7 and 8.

1) To be published.

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