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ISO 7464:1983

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Earth-moving machinery — Method of test for the measurement of drawbar pull



AS ISO 7464:2021

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Australian Industry Group
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Construction and Mining Equipment Industry Group
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Minerals Council of Australia
Mining Electrical and Mining Mechanical Engineering Society
University of Queensland

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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 specify a test method to measure the drawbar pull performance of self-propelled earth-moving machinery and their combination with mounted or trailed equipment, with or without payload.

lt covers the following criteria measured against travel speed:

(a) Drawbar pull.

(b) Drawbar power.

(c) Wheel or track slip.

This document applies to all types of self-propelled earth-moving machines except excavators.

This document is identical with, and has been reproduced from, ISO 7464:1983, *Earth-moving machinery — Method of test for the measurement of drawbar pull*.

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

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Contents

Preface ii
Foreword iv
1 Scope 1
2 Field of application 1
3 Definitions 1
4 Test site 2
4.1 Recommended minimum length 2
4.2 Grade 2
4.3 Surface 2
4.3.1 Rubber-tyred machines 2
4.3.2 Crawlers and steel-wheeled machines 3
4.3.3 Alternative surfaces 3
5 Apparatus 3
6 Preparation for test 4
7 Procedure 5
8 Test results 6

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7464 was developed by Technical Committee ISO/TC 127, *Earth-moving machinery,* and was circulated to the member bodies in December 1981.

It has been approved by the member bodies of the following countries:

Australia	Germany, F.R.	Spain
Austria	India	Sweden
Belgium	Italy	United Kingdom
Brazil	Mexico	USA
Bulgaria	Poland	USSR
Czechoslovakia	Romania	
Egypt, Arab Rep. of	South Africa, Rep. of	

The member body of the following country expressed disapproval of the document on technical grounds:

Japan

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Earth-moving machinery — Method of test for the measurement of drawbar pull

1 Scope

This International Standard specifies a test method to measure the drawbar pull performance of self-propelled earth-moving machinery and their combination with mounted or trailed equipment, with or without payload.

It covers the following criteria measured against travel speed : drawbar pull, drawbar power, and wheel or track slip.

2 Field of application

This International Standard applies to all types of self-propelled earth-moving machines except excavators.

3 Definitions

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

3.1
drawbar/hitch point
The part of the test machine used for the attachment of the dynamometer car.

3.2
drawbar pull
The horizontal towing force exerted at the drawbar/hitch point, expressed in kilonewtons (kN).

3.3
drawbar power
The towing power transmitted through the hitch point, expressed in kilowatts (kW). It is calculated as the product of travel speed, in metres per second (m/s) and drawbar pull, in kilonewtons (kN).

3.4
travel speed
The actual machine velocity expressed in metres per second (m/s) or kilometres per hour (km/h).

3.5
rated engine speed
The engine speed at which the manufacturer specifies it should develop rated power, expressed in revolutions per minute (r/min).

3.6
fast idle engine speed
The engine speed when running off-load at full throttle, expressed in revolutions per minute (r/min).

3.7
test time
The time taken to cover the test distance, or duration of the test run, expressed in seconds (s).

3.8
test distance
The distance travelled by the test machine during the test time, expressed in metres (m).

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