AS ISO 10268:2021
ISO 10268:1993

Australian STANDARD®

STANDARDS Australia

Earth-moving machinery — Retarders for dumpers and tractor-scrapers — Performance tests



AS ISO 10268:2021

This Australian Standard® was prepared by ME-063, Earthmoving Equipment. It was approved on behalf of the Council of Standards Australia on 11 December 2020.

This Standard was published on 22 January 2021.

The following are represented on Committee ME-063:

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/Mining Electrical and Mining Mechanical Engineering Society
Institute of Instrumentation, Control & Automation Australia
Minerals Council of Australia
University of Queensland

This Standard was issued in draft form for comment as DR AS ISO 10268:2020.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:
www.standards.org.au

ISBN 978 1 76113 145 5

AS ISO 10268:2021
ISO 10268:1993

Earth-moving machinery — Retarders for dumpers and tractor-scrapers — Performance tests

First published as AS ISO 10268:2021.

COPYRIGHT

© ISO 2021 — All rights reserved
© Standards Australia Limited 2021

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

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

The objective of this document is to specify a test procedure for verifying the manufacturer's published continuous retarding capability.

This document applies to dumpers, tractor scrapers and other earth-moving machinery equipped with retarders.

This document is identical with, and has been reproduced from, ISO 10268:1993, *Earth-moving machinery — Retarders for dumpers and tractor-scrapers — Performance tests*.

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.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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.

© Standards Australia Limited 2021

Contents

Preface ii
Foreword iv
1 Scope 1
2 Normative references 1
3 Definitions 1
4 Test method 1
5 Facilities 2
5.1 Towing and on-grade verification tests 2
5.2 Dynamometer test 2
6 Measurement accuracy 2
7 Test requirements 2
8 Verification test 3
9 Retarding performance presentation format 3
Annex A (informative) **Example of use of retarding performance chart** 4
Annex B (informative) **Bibliography** 5

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 10268 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Sub-Committee SC 1, *Test methods relating to machine performance*.

Annexes A and B of this International Standard are for information only.

© Standards Australia Limited 2021

Australian Standard®

Earth-moving machinery — Retarders for dumpers and tractor-scrapers — Performance tests

1 Scope

This International Standard specifies a test procedure for verifying the manufacturer's published continuous retarding capability. It applies to dumpers, tractor-scrapers and other earth-moving machinery equipped with retarders.

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 3450:1985, *Earth-moving machinery — Wheeled machines — Performance requirements and test procedures for braking systems.*

ISO 9248:1992, *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
retarder
energy absorption device normally used to control machine speed while descending grades

3.2
continuous retarding capability
steady-state energy absorption rate at which the stated critical parameters of the machine's retarding system are stabilized and are not exceeded

Note 1 to entry: The critical parameters should be defined by the manufacturer. The critical parameters will depend upon the retarder system design. Examples of what might be critical parameters are oil and coolant temperatures.

3.3
maximum continuous power
value describing the maximum descend speed and rimpull force which can be obtained in the specified gear ratio when not exceeding the manufacturer's specified engine speed

3.4
grade
test course slope on which the on-grade tests are run

4 Test method

Satisfactory results from any one of the following methods may be used for verification:

— towing

— on-grade

© Standards Australia Limited 2021