



**Powered industrial trucks and tractors—
Brake performance and component
strength**

STANDARDS
Australia



This Australian Standard® was prepared by Committee ME-026, Industrial Trucks. It was approved on behalf of the Council of Standards Australia on 10 June 2015. This Standard was published on 29 June 2015.

The following are represented on Committee ME-026:

- Australian Industrial Truck Association
 - Australian Industry Group
 - Construction and Mining Equipment Industry Group
 - Hire and Rental Industry Association of Australia
 - Safety Institute of Australia
 - WorkCover New South Wales
 - WorkSafe Victoria
-

This Standard was issued in draft form for comment as DIS S 6292:2015.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard[®]

**Powered industrial trucks and tractors—
Brake performance and component
strength**

First published as AS ISO 6292:2015.

COPYRIGHT

© Standards Australia Limited

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.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76035 117 5

PREFACE

This Standard was prepared by the Standards Australia Committee ME-026, Industrial Trucks.

The objective of this Standard is to specify performance, test methods, controls, control forces and component strength for brake systems.

This Standard is identical with, and has been reproduced from ISO 6292:2008, *Powered industrial trucks and tractors—Brake performance and component strength*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this International Standard’ should read ‘Australian Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

The second edition (ISO 6292:2008) cancels and replaces the first edition (ISO 6292:1996) and includes some of the contents of ISO 6292:1996 but has some major changes in approach to brake requirements for powered industrial trucks and tractors.

AS 2359.1:2015, *Powered industrial trucks, Part 1: General requirements* has further information on brakes. See Section 4 Brakes and Appendix C Testing service brakes and stability—design considerations (informative).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO will not be held responsible for identifying any of all such patent rights.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
3691	Industrial trucks—Safety requirements and verification	2359	Powered industrial trucks
3691-1	Part 1: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks	2359.6	Part 6: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks (ISO 3691-1:2011, MOD)
5053	Powered industrial trucks—Terminology	2359.7	Part 7: Terminology

The term ‘normative’ has been used in this Standard to define the application of the annex to which it applies. A ‘normative’ annex is an integral part of a Standard.

CONTENTS

1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Requirements	3
4.1	General.....	3
4.2	Required brake systems	3
4.3	Operating means.....	4
4.4	Service brake system	4
4.5	Parking brake system.....	4
4.6	Brake control forces.....	4
4.7	Brake component strength	4
4.8	Stored energy system	5
4.9	Additional requirements	5
5	Test conditions	6
5.1	General.....	6
5.2	Stopping distance test	6
5.3	Drawbar drag test	6
6	Performance tests.....	7
6.1	Parking brake performance	7
6.2	Service brake performance.....	7
6.3	Warning device testing (for stored energy system).....	8
6.4	Heat fade test	8
	Annex A (normative) Additional requirements	11
	Bibliography.....	12

INTRODUCTION

Industrial trucks, tractors and burden carriers, generally referred to as trucks throughout, can satisfy the braking requirements of this International Standard by complying with either the stopping distance requirements or the drawbar drag requirements. Based on the requirements for brakes of rubber-tired earthmoving machinery (ISO 3450), the stopping distance as a measurement value has been established. The brake performance is limited by consideration of the load. For further reference as to how the measurement of stopping distance and measurement of brake reaction time were derived, see ISO/TR 2994

Currently in preview, click buy full version

AUSTRALIAN STANDARD

Powered industrial trucks and tractors—Brake performance and component strength**1 Scope**

This International Standard specifies performance, test methods, controls, control forces and component strength for brake systems fitted to

- powered industrial trucks of all capacities,
- industrial tractors with rated capacities up to and including 20 000 N drawbar pull,
- burden carriers, and
- industrial trucks handling freight containers,

as defined in ISO 5053.

Loss of electrical power and loss of any other form of power assistance is not covered by this International Standard. Braking used in emergency situations (e.g. activating the emergency switch or control system shut down) is not covered in this International Standard.

This International Standard only includes requirements for newly manufactured trucks.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3691-1:—¹⁾, *Industrial Trucks — Safety requirements and verification — Part 1: Self-propelled industrial trucks, other than driverless, variable reach trucks and burden-carrier trucks*

ISO 5053, *Powered industrial trucks — Terminology*

1) To be published. (Revision of ISO 3691:1980)