

AS 2359.8—1995

ISO 5766:1990

Australian Standard[®]

Powered industrial trucks

Part 8: Pallet stackers and high-lift platform trucks—Stability tests

[ISO title: Pallet stackers and high-lift platform trucks— Stability tests]

This Australian Standard was prepared by Committee ME/26, Industrial Trucks. It was approved on behalf of the Council of Standards Australia on 29 September 1994 and published on 5 January 1995.

The following interests are represented on Committee ME/26:

Association of Employers of Waterside Labour

Australian Chamber of Commerce

Australian Industrial Truck Association

Department of Defence

Department of Occupational Health, Safety and Welfare, W.A.

Metal Trades Industry Association of Australia

Occupational Health and Safety Authority, Vic.

Port of Melbourne Authority

WorkCover Authority of N.S.W.

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This Standard was issued in draft form for comment as DR 94064.

Australian Standard[®]

Powered industrial trucks

**Part 8: Pallet stackers and high-lift
platform trucks—Stability tests**

<p>First published as AS B270—1968. Revised and redesignated AS 2359.1—1980. Second edition 1985. Revised and redesignated in part as AS 2359.8—1995.</p>

PREFACE

This Standard was prepared by the Standards Australia Committee on Industrial Trucks and is Part 8 in a series of Standards dealing with the design, manufacture and operation of powered industrial trucks. It supersedes, in part, AS 2359.1—1985, *SAA Industrial Truck Code, Part 1: Design and manufacture*.

Other Standards in this series are as follows:

- Part 1: General
- Part 2: Operation
- Part 3: Counterbalanced fork-lift trucks—Stability tests
- Part 4: Reach and straddle fork-lift trucks—Stability tests
- Part 5: Control symbols
- Part 6: Safety code
- Part 7: Terminology
- Part 9: High-lift rider trucks—Overhead guards—Specification and testing
- Part 10: Fork-lift trucks—Hook-on type fork arms—Vocabulary
- Part 11: Fork-lift trucks—Hook-on type fork arms and fork carriers—Mounting dimensions
- Part 12: Hazardous areas

This Standard is identical with and has been reproduced from ISO 5766:1990, *Pallet stackers and high-lift platform trucks—Stability tests*.

References to international Standards should be replaced by references, where appropriate, to the following Australian Standard:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
ISO	AS
5353 Earth-moving machinery, and tractors and machinery for agriculture and forestry—Seat index point	2953 Earth-moving machinery—Human dimensions
	2953.3 Part 3: Seat index point

Under arrangements made between Standards Australia and the international Standards bodies, ISO and IEC, as well as certain other Standards organizations, users of this Australian Standard are advised that the number of this Standard is not reproduced on each page; its identity is shown only on the cover and title pages.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

Powered industrial trucks

Part 8:

Pallet stackers and high-lift platform trucks — Stability tests

1 Scope

This International Standard specifies the basic tests for verification of the stability of pedestrian- and rider-controlled pallet stackers and high-lift platform trucks. It applies to such stackers and trucks with tiltable and non-tiltable masts, or tiltable or non-tiltable load platforms or fork arms, of rated capacity up to and including 5 000 kg (10 000 lb). It also applies to trucks operating under the same conditions when equipped with load-handling attachments.

This International Standard does not apply to trucks with retractable devices, such as mast or fork or when handling suspended loads which may swing freely.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5353: 1978, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*.

3 Purpose of tests

3.1 Normal operating conditions

The basic tests specified in this International Standard are designed to verify that the pallet stacker or high-lift platform truck demonstrates satisfactory stability when reasonably and appropriately used under normal operating conditions, i.e.

- a) stacking with the mast approximately vertical and the fork arms reasonably horizontal on substantially firm, smooth, level and prepared surfaces;
- b) travelling with the mast or fork arms tilted rearwards (if applicable) and the load in the lowered (travelling) position on substantially firm, smooth and prepared surfaces;
- c) operating with the load centre of gravity approximately on the longitudinal centre-plane of the truck.

3.2 Operating conditions other than normal

When the operating conditions differ from those stated in 3.1, it is necessary to use either:

- a) a truck complying with other International Standard(s) covering different specific conditions (e.g. ISO 5767¹⁾; or
- b) a truck the stability of which is agreed between the interested parties. This agreed performance shall not be less than that required by the tests specified for normal operating conditions (see 3.1).

4 Stability tests

4.1 Test requirements

The stability of these trucks shall be verified by means of one of the test methods described below. In the case of dispute, the tilting platform method shall be the referee method.

4.2 Verification procedure

4.2.1 Tilting platform

A platform which can be tilted about one side shall be used. A truck being tested for stability is placed on the initially horizontal tilting platform, in the conditions specified in 4.3 and, successively, in each of the positions described in table 2.

In each of these tests, the tilting platform shall be tilted slowly to the slope indicated in table 2. The truck is considered stable if it passes all tests without overturning.

For the purposes of these tests, overturning is defined as the test platform slope value which, if increased, would cause overturning of the truck.

It is permissible in lateral tests for one of the load wheels to lose contact with the test platform and it is acceptable for parts of the structure or other designed features to make contact with the test platform.

4.2.2 Fixed slope

Fixed slopes with inclinations equivalent to the prescribed test slope shall be used. The slope surface shall be smooth and capable of supporting the truck mass without deformation likely to affect the test results.

1) ISO 5767 : 1978, *Industrial trucks operating in special condition of stacking with mast tilted forward—Stability tests*.