AS 2359.3—1995
ISO 1074:1991

Australian Standard®

Powered industrial trucks

Part 3: Counterbalanced fork-lift trucks—Stability tests

[ISO title: Counterbalanced fork-lift 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.

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PREFACE

This Standard was prepared by the Standards Australia Committee on Industrial Trucks and is Part 3 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 4: Reach and straddle fork-lift trucks—Stability tests
Part 5: Control symbols
Part 6: Safety code
Part 7: Terminology
Part 8: Pallet stackers and high-lift platform trucks—Stability tests
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 technically equivalent to and has been reproduced from ISO 1074:1991, *Counterbalanced fork-lift trucks — Stability tests.*

For the purpose of this Australian Standard, the ISO text should be modified as follows:

(a) In Clause 3.2(a), delete 'e.g. ISO 5767' from line 2.

(b) Delete footnote from page 1.

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

Reference to International Standard		*Australia Standard*	
ISO		AS	
5353	Earth-moving machinery, and tractors and machinery for agriculture and forestry—Seat index point	2953 2953.3	Earth-moving machinery — Human dimensions 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.

Powered industrial trucks

Part 3: Counterbalanced fork-lift trucks—Stability tests

1 Scope

This International Standard specifies basic tests to verify the stability of counterbalanced fork-lift trucks. It applies to counterbalanced fork-lift trucks with tiltable or non-tiltable masts, whether rider-controlled or with a separate operator, of rated capacity up to and including 50 000 kg (110 000 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 a mast or fork, or when handling suspended loads which may swing freely.

NOTE — Additional tests for industrial trucks operating in special conditions of stacking with pre-determined offset will form the subject of a separate International Standard.

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 ensure that such a lift 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 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 the different specific conditions, e.g. ISO 5767[1)]; or

b) a truck, the stability of which is agreed upon between the interested parties. This agreed stability shall not be less than that required by the tests specified for normal operating conditions in 3.1.

4 Stability tests for fork-lift trucks

4.1 Test requirements

The stability of these trucks shall be verified by means of one of the procedures described below. For trucks with a rated capacity up to and including 10 000 kg, the tilting platform test shall be used to verify stability in the event of a dispute.

4.2 Verification procedure

4.2.1 Tilting platform

A test platform which can be tilted about one side shall be used. A truck being tested for stability is placed on the initially horizontal test platform, in the conditions specified in 4.3 and, successively, in each of the positions described in table 3.

1) ISO 5767 : 2978, *Industrial trucks operating in special condition of stacking with the mast tilted forward—Stability tests.*