

ANSI ICWM:2012
(a revision of ICWM:2004)



The ICWM Performance Standard for Casters and Wheels

Abstract:

The ICWM Performance Standard for Casters and Wheels provides a common basis for evaluating the safety, durability, structural adequacy, and technical requirements for category specific casters and wheels (Furniture Chair Casters, Furniture Non-Chair Casters, Industrial Casters, Institutional and Medical Equipment Bed Casters). Defines industry terms, specific tests, equipment/methods that can be used, conditions of tests, and minimum acceptance levels used in evaluation. These acceptance levels are based on field and test experiences.

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Institute of Caster and Wheel Manufacturers

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MHIA is a Division of Material Handling Industry

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American National Standards Institute, Inc.

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Foreword (This foreword is not part of American National Standard ICWM)

In 1996, the Institute of Caster and Wheel Manufacturers (ICWM) Long Range Planning Committee identified the need to develop a complete and comprehensive North American performance standard for casters and wheels.

Until this project was undertaken by the newly appointed ICWM Standards Committee (September, 1996), a comprehensive North American performance standard for casters and wheels did not exist. The ICWM Standards Committee, consisting of a cross section of the top engineers in the caster and wheel industry, met on an almost monthly basis for three and a half years to complete the work of producing the ICWM North American Performance Standard for Casters and Wheels.

The Institute of Caster and Wheel Manufacturers is an evolutionary refinement of the Caster & Floor Truck Manufacturers Association, which was founded in 1933 to educate members and users about the products of this industry and to maintain liaison with governmental agencies and other organizations. In 1950 the Association began developing standards for manual material handling products. Through the years, the Association and the Institute have developed a series of caster and wheel standards and standards for industrial trailer trucks, platform trucks, and towline trucks. ICWM cooperated with the General Service Administration, the Department of Defense, Post Office and other agencies in establishing federal and military specifications. In 1967 ICWM developed the American National Standards Institute's Industrial Caster Standard MH11.1.

At the date of approval of the 2012 revision of this standard, the Institute of Caster and Wheel Manufacturers (ICWM) consisted of the following member companies:

Albion Industries
Colson Caster Corporation
E.R. Wagner Mfg. Co. – Casters & Wheels
Hamilton Caster & Mfg. Co.
Jarvis Caster Company
RWM Casters
Shepherd Caster Corporation
Superior Tire & Rubber Corp.

Suggestions for improvement, and questions regarding interpretation of this standard will be welcome. They should be sent to: ICWM Standard Committee, c/o Material Handling Industry of America, 8720 Red Oak Blvd., Suite 201, Charlotte, NC, 28217-3992 or standards@mhia.org.

The ICWM Performance Standard for Casters and Wheels

Table of Contents

1	INTRODUCTION AND SCOPE	1
2	TERMS, DEFINITIONS, SYMBOLS AND DIMENSIONS	2
2.1	Definitions Relating to Wheels and Constituent Parts.....	2
2.1.1	Wheel	2
2.1.2	Hub.....	2
2.1.3	Rim	2
2.1.4	Web	2
2.1.5	Core.....	3
2.1.6	Tire	3
2.1.7	Tread	4
2.1.8	Wheel Bearing.....	4
2.2	Definitions Related to Wheel Construction.....	4
2.2.1	Solid Wheel (bare wheel)	4
2.2.2	Composite Wheel.....	4
2.2.3	Flange Wheel	5
2.2.4	Single-Flanged Rail Wheel.....	6
2.2.5	Grooved Wheel.....	6
2.2.6	Electric Conductive Wheel	6
2.2.7	Flame Retardant Wheel	6
2.2.8	Load Wheel	6
2.2.9	Stabilizer Wheel.....	7
2.2.10	Guide Wheel.....	7
2.3	Dimensional Characteristics of the Wheel.....	7
2.3.1	Diameter	7
2.3.2	Wheel Hub Diameter	7
2.3.3	Bore Diameter	8
2.3.4	Bearing Seat Diameter.....	8
2.3.5	Wheel Width	8
2.4	Definitions Relating to Axle and Mountings.....	10
2.4.1	Axle.....	10
2.4.2	Fork Mounting.....	10
2.4.3	Stub-Axle Mounting.....	10
2.4.4	Dual Wheel Stub-Axle Mounting	10

2.5	Definitions Relating to Casters	11
2.5.1	Caster	11
2.5.2	Rigid Caster	11
2.5.3	Swivel Caster	11
2.5.4	Dual-Wheel Caster.....	12
2.5.5	Inclined Axle Caster.....	12
2.5.6	Housing/Rig.....	12
2.5.7	Fork	13
2.5.8	Mounting Plane.....	13
2.5.9	Top Plate.....	13
2.5.10	Stem	13
2.5.11	Hollow Kingpin.....	14
2.5.12	Swivel Axis	14
2.5.13	Swivel Bearing.....	14
2.6	Definitions for Caster	14
2.6.1	Threadguard	14
2.6.2	Braking and/or Locking Devices	15
2.6.3	Shock-Absorbing Caster	17
2.6.4	Steering Attachment	17
2.6.5	Foot Guard	18
2.6.6	Wheel Hood.....	18
2.6.7	Dual-Wheel Caster with a Pivoting Axle.....	18
2.7	Dimensional Characteristics of the Caster	19
2.7.1	Overall Height.....	19
2.7.2	Offset	19
2.7.3	Swivel Radius	20
2.7.4	Fork Width.....	21
2.7.5	Outer Dimensions	21
2.7.6	Attaching Bolt Diameter	21
2.7.7	Bolt-Hole Spacing.....	21
2.7.8	Stem Diameter.....	22
2.7.9	Stem Length	22
2.7.10	Hollow Kingpin Mounting.....	23
2.8	Load Capacity	23
2.9	Weight	23
2.10	Forces	24
2.10.1	Start-rolling force.....	24
2.10.2	Keep-rolling force	24
2.10.3	Swivel force.....	24

3	REFERENCED STANDARDS	25
4	TEST APPARATUS AND CONDITIONS	26
4.1	Sequence of Tests for All Casters	26
4.2	Wheel Play Test	26
4.3	Swivel Play Test	27
4.4	Rollability Test.....	28
4.5	ConductivityTest.....	28
4.6	Wheel Brake and Swivel Lock Efficiency Test.....	29
4.7	Braking and/or Locking Fatigue Test	29
4.8	Dynamic Test	30
4.9	Static Test	31
4.10	Side Load Test	31
4.11	Caster/Wheel - Vertical Impact Test	32
5	FURNITURE CASTERS	34
5.1	Categories	34
5.2	Dimensions	34
5.3	Testing - General Requirements.....	34
5.4	Test Procedures and Acceptance Criteria.....	34
5.4.1	Test Procedure	34
5.4.2	Vertical Impact Test.....	36
5.4.3	Caster Retention.....	37
5.4.4	Conductivity Test.....	37
5.5	Conformity	38
6	INDUSTRIAL CASTERS	39
6.1	Wheel Play Test	39
6.1.1	Test Procedure	39
6.1.2	Acceptance Criteria	39
6.2	Swivel Play Test	39
6.2.1	Test Procedure	39
6.2.2	Acceptance Criteria	40
6.3	Rollability Test	40
6.3.1	Test Procedure	40
6.3.2	Acceptance Criteria	41
6.4	Conductivity Test	41
6.4.1	Test Procedure	41
6.4.2	Acceptance Criteria	42
6.4.3	Disclaimer	42
6.5	Wheel Brake Efficiency Test	42
6.5.1	Test Procedure	42
6.5.2	Acceptance Criteria	43
6.6	Braking and/or Locking Device Fatigue Test	43

6.6.1	Test Procedure	43
6.6.2	Acceptance Criteria	43
6.7	Static Test	43
6.7.1	Test Procedure	43
6.7.2	Acceptance Criteria	43
6.8	Dynamic Test	44
6.8.1	Dynamic Test - Industrial Casters at or under 2.5 mph	44
6.8.1.1	Test Procedure.....	44
6.8.1.2	Acceptance Criteria	44
6.8.2	Dynamic Test - Industrial Casters over 2.5 mph.....	45
6.8.2.1	Test Procedure.....	45
6.8.2.2	Acceptance Criteria	45
6.9	Side Load Test	46
6.9.1	Test Procedure	46
6.9.2	Acceptance Criteria	46
6.10	Castors - Vertical Impact Test	46
6.10.1	Test Procedure	46
6.10.2	Acceptance Criteria	46
6.11	Wheels - Vertical Impact Test.....	47
6.11.1	Test Procedure	47
6.11.2	Acceptance Criteria	47
7	INSTITUTIONAL AND HOSPITAL BED CASTERS.....	48
7.1	Wheel Play Test	48
7.1.1	Test Procedure	48
7.1.2	Acceptance Criteria	48
7.2	Swivel Play Test	48
7.2.1	Test Procedure	48
7.2.2	Acceptance Criteria	49
7.3	Rollability Test	49
7.3.1	Test Procedure	50
7.3.2	Acceptance Criteria	50
7.4	Wheel Brake Efficiency Test	50
7.4.1	Test Procedure	50
7.4.2	Acceptance Criteria	51
7.5	Swivel Lock Efficiency Test	51
7.5.1	Test Procedure	51
7.5.2	Acceptance Criteria	52
7.6	Braking and/or Locking Device Fatigue Test	52
7.6.1	Test Procedure	52
7.6.2	Acceptance Criteria	52
7.7	Static Test	52
7.7.1	Test Procedure	52
7.7.2	Acceptance Criteria	52
7.8	Dynamic Test	52

7.8.1	Test Procedure	52
7.8.2	Acceptance Criteria	53
7.9	Conductivity Test	53
7.9.1	Test Procedure	53
7.9.2	Acceptance Criteria	54
7.9.3	Disclaimer	54
7.10	Castors - Vertical Impact Test	54
7.10.1	Test Procedure	54
7.10.2	Acceptance Criteria	54
7.11	Wheels - Vertical Impact Test.....	54
7.11.1	Test Procedure	55
7.11.2	Acceptance Criteria	55

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1 INTRODUCTION AND SCOPE

This standard is intended to provide manufacturers, specifiers and users with a common basis for evaluating the safety, durability, structural adequacy, and technical requirements for group specific casters and wheels. The standard defines industry terms, specific tests, equipment/methods that can be used, the conditions of tests, and minimum acceptance levels to be used in evaluating these products. These acceptance levels are based on field and test experience of the Institute of Caster and Wheel Manufacturer (ICWM) members.

The ICWM Standard for Casters and Wheels addresses the total range or market for casters and wheels for these three categories:

1. Furniture Chair Casters
2. Industrial Casters (at or under 2.5 mph and over 2.5 mph)
3. Institutional and Medical Equipment Casters

The ICWM Standards Committee has also prepared a complete glossary of caster and wheel terms, definitions, symbols and dimensions. Additionally, appropriate caster and wheel test equipment, procedures and methods are delineated and incorporated into this standard.