Designation: F977 – 18

Standard Consumer Safety Specification for Infant Walkers[1]

This standard is issued under the fixed designation F977; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

This consumer safety specification addresses walker incidents that were identified by the U.S. Consumer Product Safety Commission (CPSC).

Based on data collected by the CPSC, the majority of incidents involved children falling down stairs or steps in walkers. Other incidents involved children tipping over in walkers or accessing hot surfaces or liquids. The injuries associated with these incidents ranged from cuts and bruises to burns, skull fractures, and deaths. Most of the children injured were under 15 months old.

In response to the incident data provided by the CPSC, this consumer safety specification attempts to minimize the risk of injury or death associated with children in walkers falling down stairs or between levels, or tipping over. It also contains provisions to address the risk of injury associated with walker seating systems and folding mechanisms.

1. Scope

1.1 This consumer safety specification covers performance requirements, test methods, and marking requirements to promote safe use of the infant walker (see 3.1).

1.2 This consumer safety specification is intended to minimize accidents to children resulting from normal use and reasonably foreseeable misuse or abuse of walkers.

1.3 No walker produced after the approval date of this consumer safety specification shall, either by label or other means, indicate compliance with this specification unless it conforms to all requirements contained herein.

1.4 This consumer safety specification is not intended to address accidents and injuries resulting from the interaction of other persons with the child in the walker or the accidents resulting from abuse and misuse by children able to walk.

1.5 The values stated in inch-pound units are to be regarded as the standard. The SI units given in parentheses are for information only.

1.6 The following precautionary caveat pertains only to the test method portion, Section 7, of this consumer safety specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D3359 Test Methods for Rating Adhesion by Tape Test

F963 Consumer Safety Specification for Toy Safety

2.2 *Federal Regulations:*[3]

16 CFR 1303 Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint

16 CFR 1500 Hazardous Substances Act Regulations Including Sections:

1500.48 Technical Requirements for Determining a Sharp Point in Toys or Other Articles Intended for Use by Children Under Eight Years of Age

1500.49 Technical Requirements for Determining a Sharp Metal or Glass Edge in Toys or Other Articles Intended for Use by Children Under Eight Years of Age

[1] This consumer safety specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.17 on Carriages, Strollers, Walkers and Stationary Activity Centers.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from U.S. Government Printing Office, N. Capital and H Streets, NW, Washington, DC 20401.

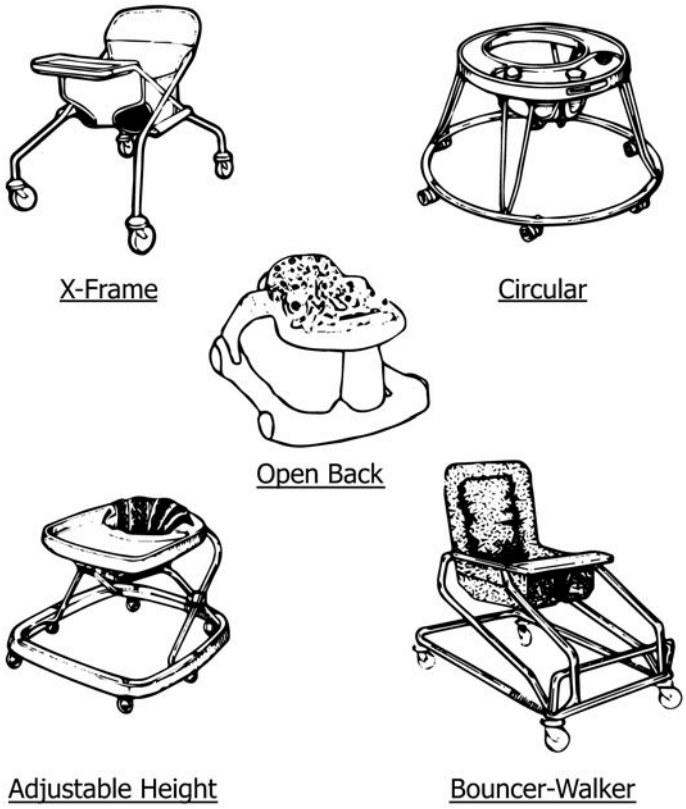

FIG. 1 Illustrations of Five Types of Baby Walkers

1500.50–.52 Test Methods for Simulating Use and Abuse of Toys and Other Articles Intended for Use by Children

16 CFR 1501 Method for Identifying Toys and Other Articles Intended for Use by Children Under Three Years of Age Which Present Choking, Aspiration, or Ingestion Hazards Because of Small Parts

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *conspicuous, adj*—a label that is visible, when the unit is in a manufacturer's recommended use position, to a person standing near the unit at any one position around the unit but not necessarily visible from all positions.

3.1.2 *dynamic load, n*—application of impulsive force through free fall of a weight.

3.1.3 *manufacturer's recommended use position, n*—any position that is presented as a normal, allowable, or acceptable configuration for the use of the product by the manufacturer in any descriptive or instructional literature. This specifically excludes positions that the manufacturer shows in a like manner in its literature to be unacceptable, unsafe, or not recommended.

3.1.4 *non-paper label, n*—any label material (such as plastic or metal) which either will not tear without the aid of tools or tears leaving a sharply defined edge.

3.1.5 *occupant, n*—that individual who is in a product that is set up in one of the manufacturer's recommended use positions.

3.1.6 *paper label, n*—any label material which tears without the aid of tools and leaves a fibrous edge.

3.1.7 *static load, n*—a vertically downward force applied by a calibrated force gauge or by dead weights.

3.1.8 *walker, n*—a mobile unit that enables a child to move on a horizontal surface when propelled by the child sitting or standing within the walker, and that is in the manufacturer's recommended use position. Examples of different style walkers can be seen in Fig. 1.

4. Calibration and Standardization

4.1 All testing shall be conducted on a concrete floor that may be covered with ⅛ in. (3 mm) thick vinyl floor cover, unless test instructs differently.

4.2 The walker shall be completely assembled, unless otherwise noted, in accordance with the manufacturer's instructions.

4.3 No testing shall be conducted within 48 h of manufacturing.

4.4 The product to be tested shall be in a room with ambient temperature of 73 ± 9°F (23 ± 5°C) for at least 1 h prior to testing. Testing then shall be conducted within this temperature range.

4.5 All testing required by this specification shall be conducted on the same unit.

4.6 The following guidelines shall apply to force gauges used for testing:

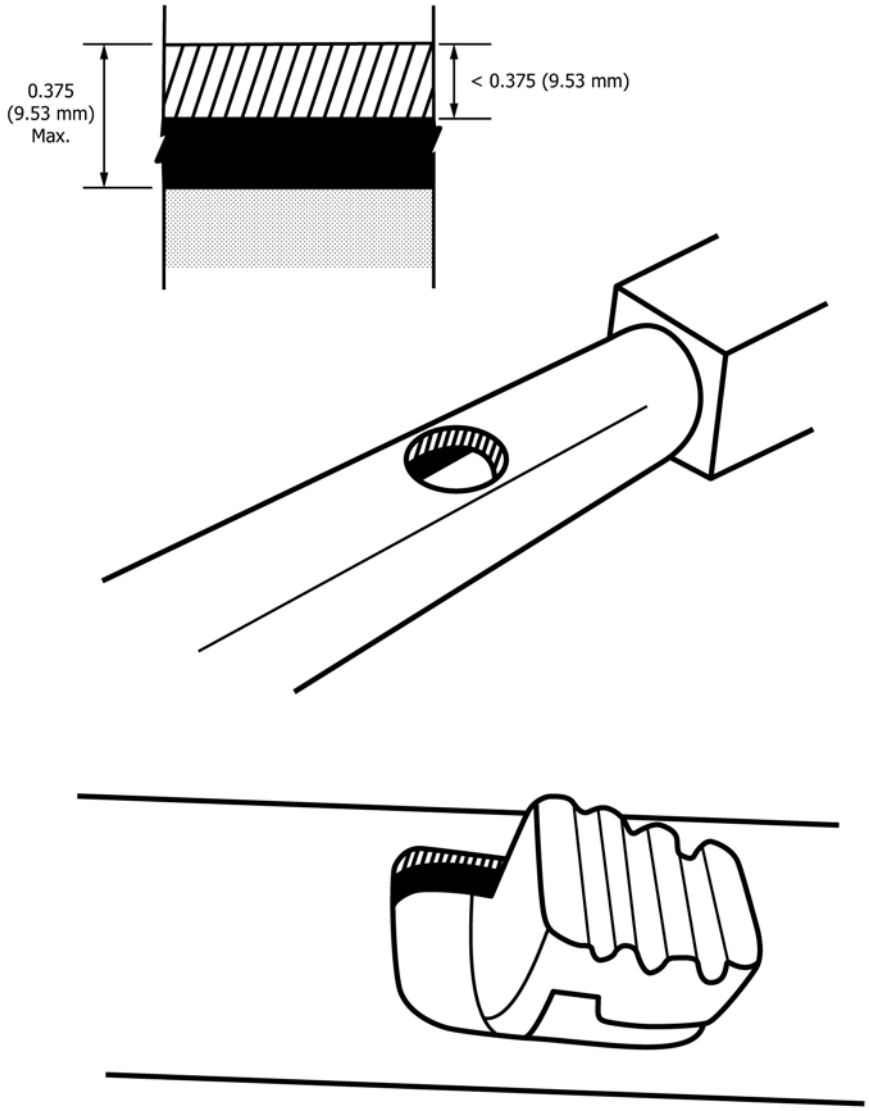

FIG. 2 Opening Examples

4.6.1 *Equipment*—Force gauge with a range of 0 to 25 lbf (111 N) and a tolerance of ±0.25 lbf (1.1 N). A calibration interval shall be maintained for the force gauge which will ensure that the accuracy does not drift beyond the stated tolerance.

4.6.2 *Equipment*—Force gauge with a range 0 to 100 lbf (445 N) and a tolerance of ±1 lbf (4.4 N). A calibration interval shall be maintained for the force gauge which will ensure that the accuracy does not drift beyond the stated tolerance.

5. General Requirements

5.1 The walker shall conform to the regulations specified in Section 2 of this specification before and after all testing.

5.2 Prior to testing, any exposed wood parts shall be smooth and free from splinters.

5.3 *Latching or Locking Mechanisms*—Any unit that folds shall have a latching or locking device or other provision in the design that will prevent the unit from unintentionally folding when properly placed in the manufacturer's recommended use position. The unit shall remain in its manufacturer's recommended use position during and upon completion of the test, in accordance with 7.2. If a unit is designed with a latching or locking device, that device shall remain engaged and operative after testing.

5.4 *Openings*—Holes or slots that extend entirely through a wall section of any rigid material less than 0.375 in. (9.53 mm) thick and admit a 0.210 in. (5.33 mm) diameter rod shall also admit a 0.375 in. (9.53 mm) diameter rod. Holes or slots that are between 0.210 in. (5.33 mm) and 0.375 in. (9.53 mm) and have a wall thickness less than 0.375 in. (9.53 mm), but are limited in depth to 0.375 in. (9.53 mm) maximum by another rigid surface shall be permissible (see Fig. 2). The product shall be evaluated in all manufacturer's recommended use positions.

5.5 *Scissoring, Shearing, Pinching*—A product, when in a manufacturer's recommended use position, shall be designed and constructed so as to prevent injury to the occupant from any scissoring, shearing, or pinching when members or components rotate about a common axis or fastening point, slide,