Designation: F 2194 – 02

Standard Consumer Safety Specification for Bassinets and Cradles[1]

This standard is issued under the fixed designation F 2194; 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 performance specification addresses infant bassinet and cradle incidents identified by the U.S. Consumer Product Safety Commission (CPSC).

In response to the incident data compiled by the CPSC, this consumer safety performance specification attempts to minimize the following hazards: (*1*) suffocation, (*2*) tip over, (*3*) collapse, and (*4*) hood detachment. This specification does not cover products that are blatantly misused or used in a careless manner that disregards the safety instructions and warnings provided with each bassinet or cradle.

1. Scope

1.1 This consumer safety performance specification establishes performance requirements, test methods, and marking requirements to promote safe use of bassinets and cradles.

1.2 This consumer safety performance specification is intended to minimize the risks of incidents to an infant resulting from normal use and reasonably foreseeable misuse of a bassinet or cradle.

1.3 This specification covers products intended to provide sleeping accommodations (excluding full-size cribs, non–full-size cribs, and bassinets attached to play yards or swings) for an infant up to approximately 5 months in age. Products used in conjunction with a play yard, non–full-size crib, or an infant swing are not covered by this standard.

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

1.5 This safety performance specification is not intended to address incidents and injuries resulting from alteration or unreasonable abuse or misuse of the product by a child or child care giver.

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 and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 3359 Test Method for Measuring Adhesion by Tape Test[2]

F 963 Consumer Safety Specification on Toy Safety[3]

F 966 Consumer Safety Specification for Full Size and Non-Full Size Baby Crib Corner Post Extensions[3]

2.2 *Federal Regulations:*

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

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

16 CFR 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

16 CFR 1500.50-.51 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

16 CFR 1509 Requirements for Non-Full-Size Baby Cribs

2.3 *Other References:*

[1] This specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.18 on Cribs, Toddler Beds, Play Yards, Bassinets, Cradles, and Changing Tables.

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[2] *Annual Book of ASTM Standards*, Vol 06.01.

[3] *Annual Book of ASTM Standards*, Vol 15.07.

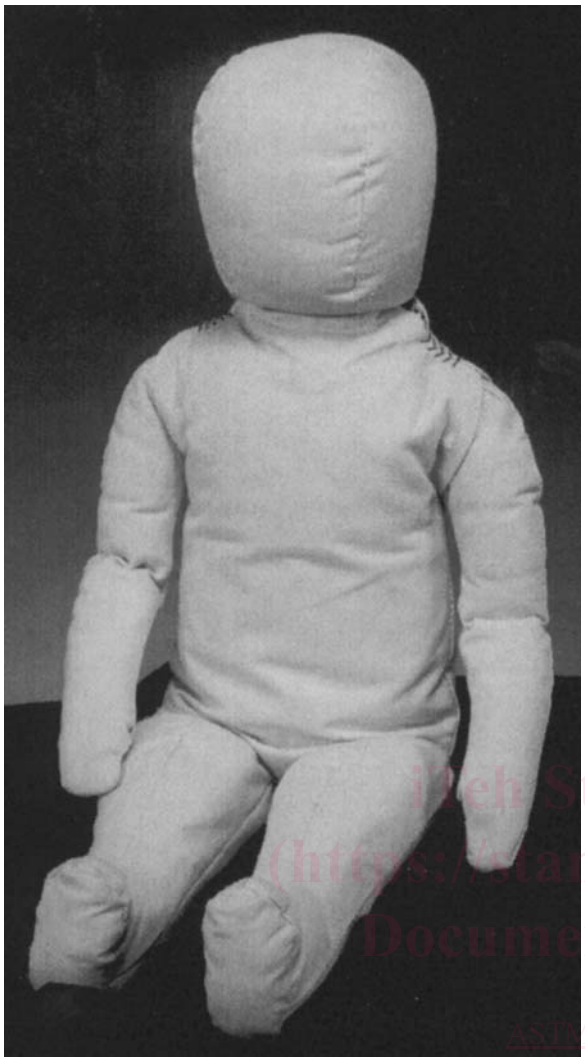

FIG. 1 CAMI Infant Dummy, Mark II 17.5 lb (7.9 kg)

CAMI Dummy, MARK II (see Fig. 1)[4]

3. Terminology

3.1 *Definitions:*

3.1.1 *bassinet/cradle*, *n*—a small bed for infants supported by free standing legs, a wheeled base, a rocking base, or which can swing relative to a stationary base.

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

3.1.3 *fabric*, *n*—any woven, knit, coated, laminated, extruded, or calendared flexible material that is intended to be sewn, welded, heat sealed, or glued together as an assembly.

3.1.4 *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.

3.1.5 *mesh*, *n*—mesh may be either a woven fabric in which the warp and filling yarns are interlaced, knitted fabric in which the wales and courses yarns are interlocked, or any other type of fabric that may be developed that provides openings therein.

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

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

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

3.1.9 *seam*, *n*—a means for joining fabric components, such as sewing, welding, heat sealing, or gluing.

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

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 flooring cover, unless the test instructs differently.

4.2 The product 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.

5. General Requirements

5.1 *Lead in Paints*—The paint or surface coating on the product shall comply with 16 CFR 1303.

5.2 *Hazardous Sharp Edges or Points*—There shall be no hazardous sharp points or edges as defined by 16 CFR 1500.48 and 16 CFR 1500.49 before and after testing to this consumer safety specification.

5.3 *Small Parts*—There shall be no small parts as defined by 16 CFR 1501 before testing or liberated as a result of testing to this specification.

5.4 *Wood Parts*—Prior to testing, any exposed wood parts shall be smooth and free of splinters.

5.5 *Scissoring, Shearing, or Pinching*:

5.5.1 A product, when in the manufacturer's recommended use position shall be designed and constructed so as to prevent injury to the occupant from scissoring, shearing, or pinching when members or components rotate about a common axis, or fastening points, slide, pivot, fold or otherwise move relative to one another. Scissoring, shearing, or pinching that may cause

[4] Department of Transportation Memorandum Report AAC-119-74-14, Revision II, Drawing No. SA-1001 by Richard Chandler, July 2, 1974. Federal Aviation Administration, Civil Aeromedical Institute, Protection and Survival Laboratory, Aeromedical Center, Oklahoma City, OK 73125.

injury shall not be permissible when the edges of any rigid parts admit a probe that is greater than a 0.210-in. (5.33-mm) and less than a 0.375-in. (9.53-mm) diameter at any accessible point throughout the range of motion of such parts.

5.6 *Unintentional Folding*:

5.6.1 Products designed without latching or locking devices must remain in the manufacturer's recommended use position during and upon completion of the test, in accordance with 7.5.1.

5.6.2 Products designed with a single action release mechanism latching or locking devices must remain in the manufacturer's recommended use position during and upon completion of the test, in accordance with 7.5.2.

5.6.3 Products with a double action release mechanism latching or locking device shall require two distinct and separate actions for release of the mechanism.

5.7 *Openings*—Any shaped holes, slots, or cracks that exist in the bassinet/cradle in the manufacturer's recommended use position and that are accessible to the toes or fingers of the occupant through or recessed, or both, into the surface of any rigid material that admit a 0.210-in. (5.33-mm) diameter rod, also shall admit a 0.375-in. (9.53-mm) diameter rod. Openings that have a minor dimension between 0.210-in. (5.33-mm) and 0.375-in. (9.53-mm) shall be permissible, providing the depth is no greater than the minor dimension of the opening.

5.8 *Labeling*:

5.8.1 Warning labels (whether paper or non-paper) shall be permanent when tested per 7.2.1-7.2.3.

5.8.2 Warning statements applied directly onto the surface of the product by hot stamping, heat transfer, printing, wood burning, etc. shall be permanent when tested per 7.2.4.1-7.2.4.3.

5.8.3 Non-paper labels shall not liberate small parts when tested per 7.2.5.

5.9 *Fasteners*—Woodscrews shall not be used in the assembly of any components that must be removed by the consumer in the normal disassembly of a bassinet/cradle.

5.10 *Corner Post Extensions*—The product must meet the Consumer Safety Specification F 966F 966.

5.11 *Toys*—Toy accessories attached to, removable from, or sold with a bassinet or cradle, as well as their means of attachment, must meet the applicable requirements of Consumer Safety Specification F 963F 963.

6. Performance Requirements

6.1 *Spacing of Rigid Sided Bassinet/Cradle Components*—Spacing must comply with 16 CFR Part 1509 Section 1509.4 when tested according to 7.1.

6.2 *Openings for Mesh/Fabric Sided Bassinet/Cradle*—Openings in the mesh shall be designed to prevent entrapment of fingers, toes, and snaring of buttons normally used on infant clothing. A mesh opening shall not fully accept the specified rod when tested in accordance with 7.6.

6.3 *Static Load*—A product in all manufacturer's recommended use positions shall support the static load without causing any hazardous conditions as identified within this consumer safety specification. This test shall be conducted in accordance with 7.3.

6.4 *Stability*—A product in all manufacturer's recommended use positions shall not tip over when subjected to the test described in 7.4.

6.5 *Sleeping Pad*:

6.5.1 *Pad Thickness*—The filling material of the uncompressed sleeping pad such as foam, fiberfill, etc. shall not exceed a nominal 1-in. (25-mm) thickness. The total thickness of the uncompressed pad including all fabric or vinyl layers and filling material shall not exceed 1½ in. (38 mm). The pad must be provided by the manufacturer.

6.5.2 *Pad Dimensions*—The dimensions of the sleeping pad supplied with the product shall be such that the pad, when inserted in the center of the unit in a noncompressed state at any of the adjustable positions, shall not leave a gap of more than ½ in. (13 mm) at any point between the perimeter of the pad and the perimeter of the unit. When the pad is placed against the perimeter of the unit, the resulting gap shall not exceed 1 in. (25 cm).

6.6 *Protective Components*—If the occupant can grasp components between the thumb and forefinger or teeth (such as caps, sleeves, or plugs used for protection from sharp edges, points, or entrapment of fingers or toes), or if there is at least a 0.040-in. (1.00-mm) gap between the component and its adjacent parent component, such component shall not be removed when tested in accordance with 7.7.

7. Test Methods

7.1 *Component Spacing*—Refer to 16 CFR Part 1509. For spacing of components, see CFR 1509.4. For component spacing test apparatus, see CFR 1509.5 and for component spacing test method, see CFR 1509.6.

7.2 *Permanency of Labels and Warnings*:

7.2.1 A paper label (excluding labels attached by a seam) shall be considered permanent if, during an attempt to remove it without the aid of tools or solvents, it cannot be removed, it tears upon removal, or such action damages the surface to which it is attached.

7.2.2 A non-paper label (excluding labels attached by a seam) shall be considered permanent if, during an attempt to remove it without the aid of tools or solvents, it cannot be removed or such action damages the surface to which it is attached.

7.2.3 A warning label attached by a seam shall be considered permanent if it does not detach when subjected to a 15-lbf (67-N) pull force applied in any direction most likely to cause failure using a clamp with a ¾-in. (19-mm) diameter clamping surface. Apply the force evenly over 5 s and maintain for an additional 10 s.

7.2.4 *Adhesion Test for Warnings Applied Directly onto the Surface of the Product*:

7.2.4.1 Apply the tape test defined in Test Method B, Cross-Cut Tape Test of Test Method Standard D 3359D 3359, eliminating the parallel cuts.

7.2.4.2 Perform this test once in each different location where warnings are applied.

7.2.4.3 The warning statements will be considered permanent if the printing in the area tested is still legible and attached after being subjected to this test.