Designation: F3084 – 16

Standard Consumer Safety Specification for Infant and Infant/Toddler Rockers[1]

This standard is issued under the fixed designation F3084; 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 is intended to minimize the risk of injury or death associated with a child's use of an infant or infant/toddler rocker. The specific hazards addressed by this specification are product disassembly/collapse, stability, and falls from elevated surfaces.

1. Scope

1.1 This consumer safety specification covers establishment of requirements, test methods, and marking requirements to promote safe use of the rocker by an occupant and a caregiver.

1.2 For purposes of this consumer safety specification, an infant rocker or infant/toddler rocker is a freestanding product intended to support an occupant in a seated, reclined position and to facilitate rocking by the occupant with the aid of a caregiver or by other means. Intended occupants for infant rockers are infants who have not developed the ability to sit up unassisted (approximately 0 to 6 months of age), and infant/toddler rockers have an extended use with occupants until toddler age (approximately 2½ years of age). Both infant and infant/toddler rockers include a restraint system.

1.3 This specification does not cover positions or modes on products that recline to 10° or less above the horizontal or are intended primarily for sleeping. If the rocker can be converted into a product for which an ASTM standard consumer safety specification exists, the product shall meet the applicable requirements of that standard. For example, a rocker that converts to a bassinet shall also comply with the applicable requirements of Consumer Safety Specification F2194 when in a bassinet mode. This specification does not cover rockers intended for toddler only use without a restraint system, hand-held infant carriers or inclined sleep products that have the ability to rock or have a rocking mode.

1.4 This consumer safety specification is intended to minimize the risk of injury to an occupant resulting from normal use and reasonably foreseeable misuse or abuse of an infant or infant/toddler rocker.

1.5 No rocker 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.

1.6 This consumer safety specification is not intended to address incidents and injuries resulting from the interaction of other persons with the occupant in the product or the incidents resulting from abuse or misuse by other children.

1.7 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.8 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 limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D3359 Test Methods for Measuring Adhesion by Tape Test

F963 Consumer Safety Specification for Toy Safety

F2050 Consumer Safety Specification for Hand-Held Infant Carriers

F2167 Consumer Safety Specification for Infant Bouncer Seats

F2194 Consumer Safety Specification for Bassinets and Cradles

2.2 *EN Standards:*

EN12790:2009 Child use and care articles—Reclined cradles

[1] This consumer safety 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] 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.

2.3 *Federal Regulations:*

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

16 CFR 1500.48 Technical Requirements for Determining a Sharp Point in Toys or Other Articles Intended 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-.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

2.4 *Other References:*

49 CFR Part 572.25 NHTSA Subpart D—6 Month-Old CAMI Infant Dummy, Mark II, Fig. 1

49 CFR Part 572.90 and 572.91 NHTSA Subpart K—CAMI Newborn Infant Dummy, Fig. 2

3. Terminology

3.1 *Definitions:*

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

3.1.2 *double action release mechanism, n*—a single mechanism requiring either two consecutive actions, the first of which must be maintained while the second is carried out or two separate and independent mechanisms that must be activated simultaneously.

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

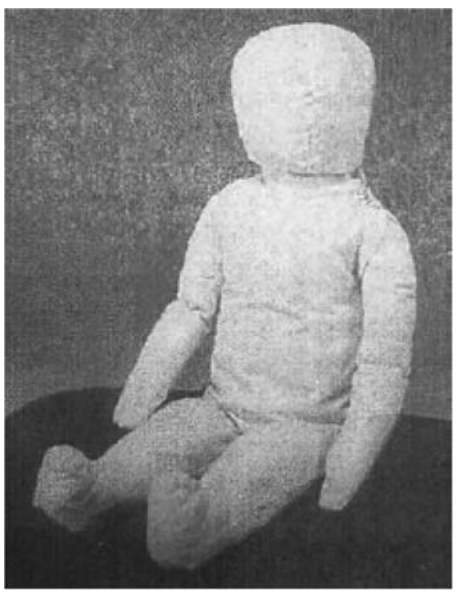

FIG. 1 CAMI Infant Dummy, Mark II

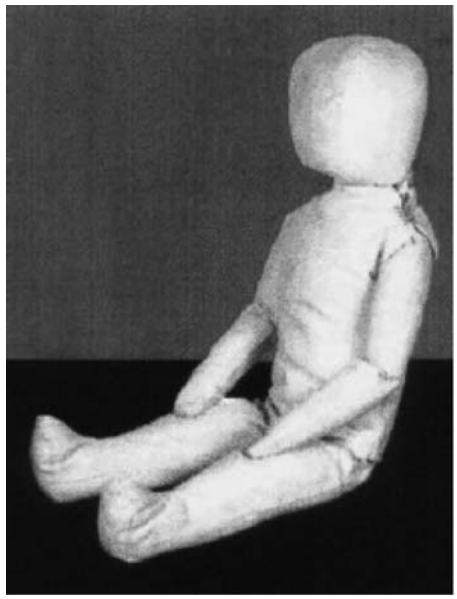

FIG. 2 CAMI Newborn Infant Dummy

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

3.1.5 *grasping point on toy bar, n*—five-inch wide section of the toy bar centered at the mid-point of the toy bar if the toy bar is attached at two points on the frame.

3.1.5.1 *Discussion*—If the toy bar has a single attachment point, the 5-in. dimension is either centered at the mid-point of the product or as close to the mid-point as possible, should the toy bar not extend far enough beyond the mid-point to achieve this. The load should be evenly distributed over this 5-in. dimension.

3.1.6 *kickstand, n*—a device intended by the manufacturer to prevent any rocking motion.

3.1.6.1 *Discussion*—A kickstand may include hinged legs, feet or other mechanical stops.

3.1.7 *manufacturer's recommended use position(s), 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.

3.1.7.1 *Discussion*—This specifically excludes positions that the manufacturer shows in a like manner in its literature to be unacceptable, unsafe, or not recommended.

3.1.8 *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.

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

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

3.1.11 *seam, n*—means of joining fabric components, such as sewing, welding, heat sealing, or gluing.

3.1.12 *seat bight, n*—the intersection of the seat back surface with the seat bottom surface (see Figs. 3 and 4).

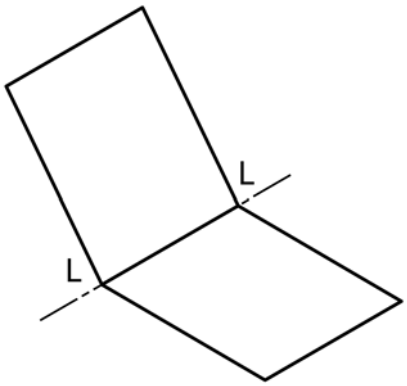

FIG. 3 Typical Seat Bight (LL–Seat Bight)

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

3.1.14 *toy bars, n*—any bar or mobile connected to the frame of the product in any location with one or more attachment points typically used to suspend toys over the occupant.

3.1.14.1 *Discussion*—Canopies, fixed and rotating, are not considered a toy bar regardless of whether they allow for the attachment of toys.

4. Calibration and Standardization

4.1 All testing shall be conducted on a concrete floor, which 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 removed from any shipping materials or packaging and stored in a room with an ambient temperature of 73° ± 9°F (23° ± 5°C) for at least one hour prior to testing. Testing shall then be conducted within this temperature range.

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

5. General Requiremens

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

5.2 *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.

5.3 *Lead*—All paints and surface coatings shall comply with 16 CFR 1303.

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

5.5 *Latching or Locking Mechanisms*—If the rocker is designed with a latching or locking device that prevents unintentional folding, the rocker shall meet either 5.5.1 or 5.5.2. The latching or locking device shall remain engaged and operative after all testing.

5.5.1 The latching or locking device shall be a double action release mechanism.

5.5.2 The product's latching or locking device shall not release and remain operative when tested in accordance with 7.2.

5.6 *Scissoring, Shearing, and Pinching*—A product, when in any manufacturer's recommended use position(s), 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, pivot, fold, or otherwise move relative to one another. Scissoring, shearing, or pinching that may cause injury shall not be permissible when the edges of any rigid parts admit a probe greater than 0.210 in. (5.33 mm) and less than 0.375 in. (9.53 mm) in diameter at any accessible point throughout the range of motion of such parts.

5.7 *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. 5). The product shall be evaluated in all manufacturer's recommended use positions.

5.8 *Exposed Coil Springs*—Any exposed coil spring that is accessible to the occupant, having or capable of generating a space between coils of 0.210 in. (5.33 mm) or greater during static load testing in accordance with 7.6.2 shall be covered or otherwise designed to prevent injury from entrapment.

5.9 *Protective Components*—If a child can grasp components between the thumb and forefinger or between 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 7.10.

5.10 *Permanency of Labels and Warnings:*

5.10.1 Warning labels (whether paper or non-paper) shall be permanent when tested in accordance with 7.9.1 – 7.9.3.

5.10.2 Warning statements applied directly onto the surface of the product by hot stamping, heat transfer, printing, wood burning, etc. shall be permanent when tested in accordance with 7.9.4.

5.10.3 Non-paper labels shall not liberate small parts when tested in accordance with 7.9.5.

5.11 *Toys*—Toy accessories attached to, removable from, or sold with a rocker, as well as their means of attachment, must meet applicable requirements of Specification F963.

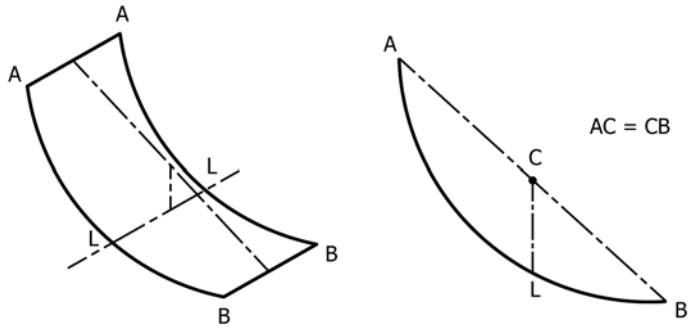

FIG. 4 Hammock Type Seat Bight (LL–Seat Bight; CL–Vertical projection of C on the hammock)

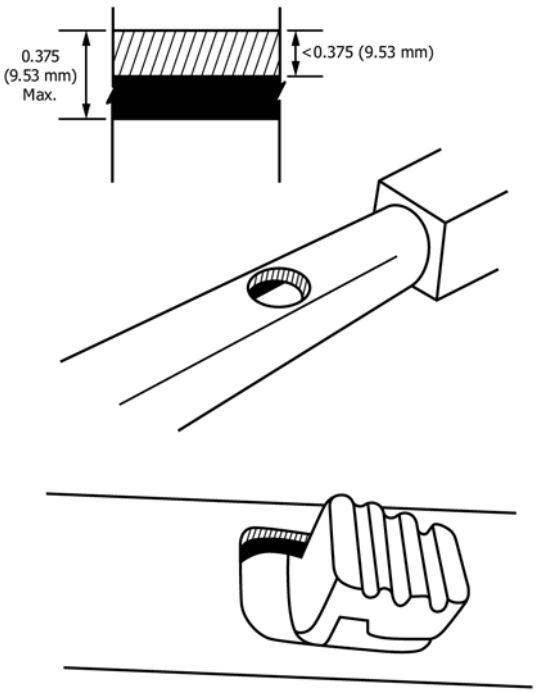

FIG. 5 Opening Example

6. Performance Requiremens

6.1 *Seat Angles*—The rocker shall meet the following when tested in accordance with 7.1.

6.1.1 The angle between the seat back and the seat bottom shall be greater than or equal to 90°.

6.1.2 The angle between the seat back and the horizontal shall be greater than 10° and less than 80°.

6.2 *Restraint System:*

6.2.1 A restraint system shall be provided to secure a child in any of the manufacturer's recommended use positions.

6.2.2 The restraint system shall include both a waist and crotch restraint, where the crotch restraint's use is mandatory when the waist restraint is in use.

6.2.3 The anchorages for the restraint system shall not separate from their attachment points when tested in accordance with 7.3.

6.3 *Stability:*

6.3.1 *Forward Stability*—The rocker shall not tip over when tested in accordance with 7.4.1.

6.3.1.1 *Forward Stability Infant/Toddler Rockers*—If the product is intended for use after the occupant can sit upright unassisted, the rocker shall not tip over when tested in accordance with 7.4.2.

6.3.2 *Sideward and Rearward Stability*—The rocker shall not tip over when tested in accordance with 7.4.3.

6.4 *Static Slip Resistance*—The rocker shall not slip more than ⅛ in. (3 mm) when tested in accordance with 7.5 in the non-rocking position. If the item has only a rocking mode, this requirement does not apply.

6.5 *Structural Integrity*—At test conclusion, there shall be no failure of seams, breakage of materials, or changes of adjustments that could cause the product not to fully support the child or create a hazardous condition as defined in Section 5.

6.5.1 *Dynamic Load*—The rocker shall not create a hazardous condition as defined in Section 5 when tested in accordance with 7.6.1.

6.5.2 *Static Load*—The rocker shall not create a hazardous condition as defined in Section 5 when tested in accordance with 7.6.2.

6.6 *Disassembly/Collapse*—The rocker shall not disassemble or collapse when tested in accordance with 7.7.

6.7 *Toy Bar Attachment Integrity:*

6.7.1 *Toy Bar Attachment Release*—Toy bars must meet the requirements in 6.7.1.1 or 6.7.1.2 or 6.7.1.3:

6.7.1.1 The toy bar must not completely release from the rocker from any attachment point when tested to 7.8.1.2 and 7.8.2.

6.7.1.2 The toy bar must completely release before the entire rocker lifts off the test surface when tested to 7.8.1.3.

6.7.1.3 For toy bars that contain a single attachment point, the furthermost point at the free end of the toy bar must move more than 2 in. (5.1 cm) from its original resting position while attempting to lift the rocker off the test surface when tested to 7.8.1.3.

7. Test Methods

NOTE 1—The tests described in 7.1 through 7.8 are to be performed in the order specified without refurbishing or repositioning of adjustments, if any.

7.1 *Seat Angles Test:*

7.1.1 *Angle between seat back and seat bottom:*

7.1.1.1 For rockers with an adjustable seat back, adjust the seat back into the most upright position.

7.1.1.2 Place the rocker in the most upright manufacturer's recommended use position. This position could be with or without the kickstand up.

7.1.1.3 Position the segments of the restraint system to limit interaction with the hinged weight gauge-infant (Fig. 6) when placed in the seat.

7.1.1.4 Place the hinged weight gauge-infant in the rocker with the hinged edge into the seat bight.

7.1.1.5 Place the inclinometer on the floor and zero the reading.

7.1.1.6 Measure the angle between the seat back and the seat bottom (Fig. 7).

7.1.2 *Angle between seat back and horizontal:*

7.1.2.1 For rockers with an adjustable seat back, adjust the seat back into the most reclined position.

7.1.2.2 Place the rocker in the most reclined manufacturer's recommended use position. This position could be with or without the kickstand up.

7.1.2.3 Position the segments of the restraint system to limit interaction with the hinged weight gauge-infant (Fig. 6) when placed in the seat.

7.1.2.4 Place the hinged weight gauge-infant in the rocker with the hinged edge into the seat bight.

7.1.2.5 Place the inclinometer on the floor and zero the reading.

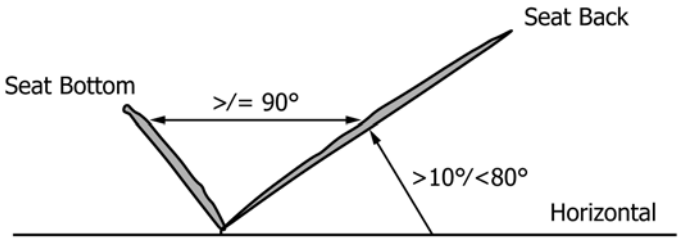

FIG. 7 Seat Angle Measurements

7.1.2.6 Measure the angle between the seat back and the horizontal (Fig. 7).

7.2 *Single Action Release Mechanisms:*

7.2.1 Set up the product in the manufacturer's recommended use position.

7.2.2 If the mechanism requires a pull or push action, gradually apply a force of 10 lbf (45 N) to the latching or locking mechanism in the direction tending to release it.

7.2.3 If the mechanism requires a twist or turn action, gradually apply a torque of 4 lbf-in (0.5 N-m) to the latching or locking mechanism in the direction tending to release it.

7.3 *Restraint System:*

7.3.1 Secure the rocker so that it cannot move vertically or horizontally.

7.3.2 Apply a force of 45 lbf (200 N) to a single attachment point of the restraint system in the normal use direction(s) that

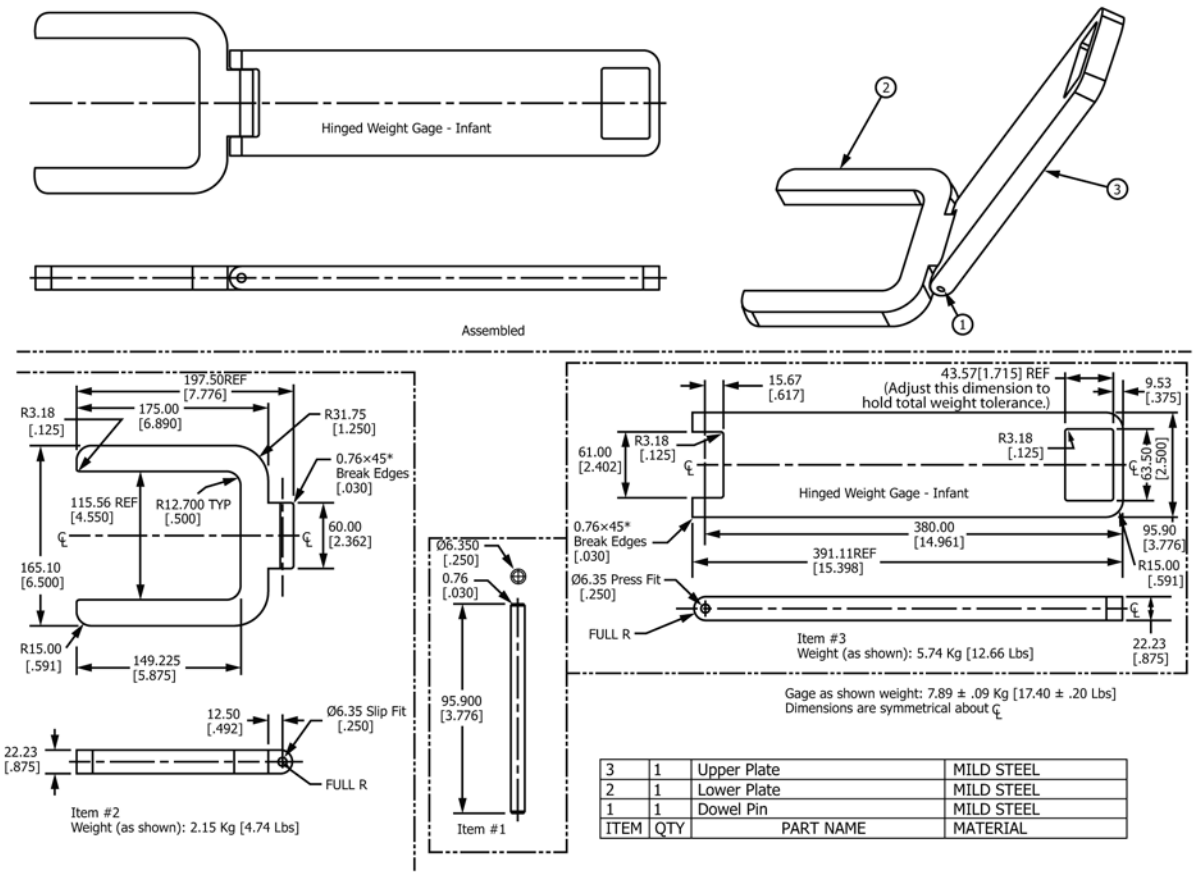

FIG. 6 Hinged Weight Gauge—Infant

stress would be applied to the attachment. Gradually apply the force within a period of 5 s and maintain for an additional 10 s.

7.3.3 Repeat 7.3.2 for each attachment point of the restraint system and fastening device.

7.4 *Stability:*

7.4.1 *Forward Stability:*

7.4.1.1 *Test Equipment:*

(1) Stability Test Fixture:

(a) The forward stability test fixture is to be constructed of ¾-in. (19-mm) plywood or the equivalent of such product.

(b) The fixture shall be constructed according to Fig. 8.

(2) The test surface shall be an impregnated high pressure laminate of unspecified color with a smooth matte finish.

7.4.1.2 Set up the rocker in the manufacturer's use position with the kickstand up to allow rocking if applicable. For rockers with an adjustable seat back, adjust the seat into the most upright manufacturers recommended use position.

7.4.1.3 Establish the restraint system adjustment position by placing the CAMI Infant Dummy, Mark II (Fig. 1) in the rocker, fastening and adjusting the restraint system in accordance with the manufacturer's instructions, and then remove the dummy.

7.4.1.4 Insert the forward stability test fixture (Fig. 8) into the rocker with the crotch belt positioned in the slot for the crotch restraint, and secure the waist restraints to the crotch restraint without adjusting the restraint from the position established in 7.4.1.3.

7.4.1.5 Pull forward on the forward stability test fixture to remove any slack in the crotch restraint.

7.4.1.6 Apply a static load of 21 lbf (93 N) vertically downward on the stability test fixture in the location designated in Fig. 8 (5-in. (130-mm) in front of the crotch post) within a period of 5 s and maintain for an additional 60 s (Fig. 9). If the stability test fixture touches the test surface and prevents the product from tipping over, retest the product near the edge of an elevated test surface to allow the product to tip.

7.4.1.7 Repeat 7.4.1.6 with the kickstand deployed to prevent rocking if applicable.

7.4.2 *Forward Stability for Infant/Toddler Rockers:*

7.4.2.1 *Test Equipment:*

(1) Stability Test Fixture for Infant/Toddler Rockers constructed according to Fig. 10.

(2) Test Surface

(a) The test surface shall be an impregnated high pressure laminate of unspecified color with a smooth matte finish.

(b) The laminate should be mounted on a flat surface, with a thickness no less than ¾ in. (19 mm), in accordance with the laminate manufacturer's instructions.

(c) The test surface shall be fixed at an angle of 18° from horizontal.

(d) A stop or equivalent device mounted parallel to the lower edge of the surface and parallel to the floor so as to prevent the seat from sliding, but not prevent it from tipping.

7.4.2.2 Set up the rocker in the manufacturer's use position where the seat is most likely to create forward instability.

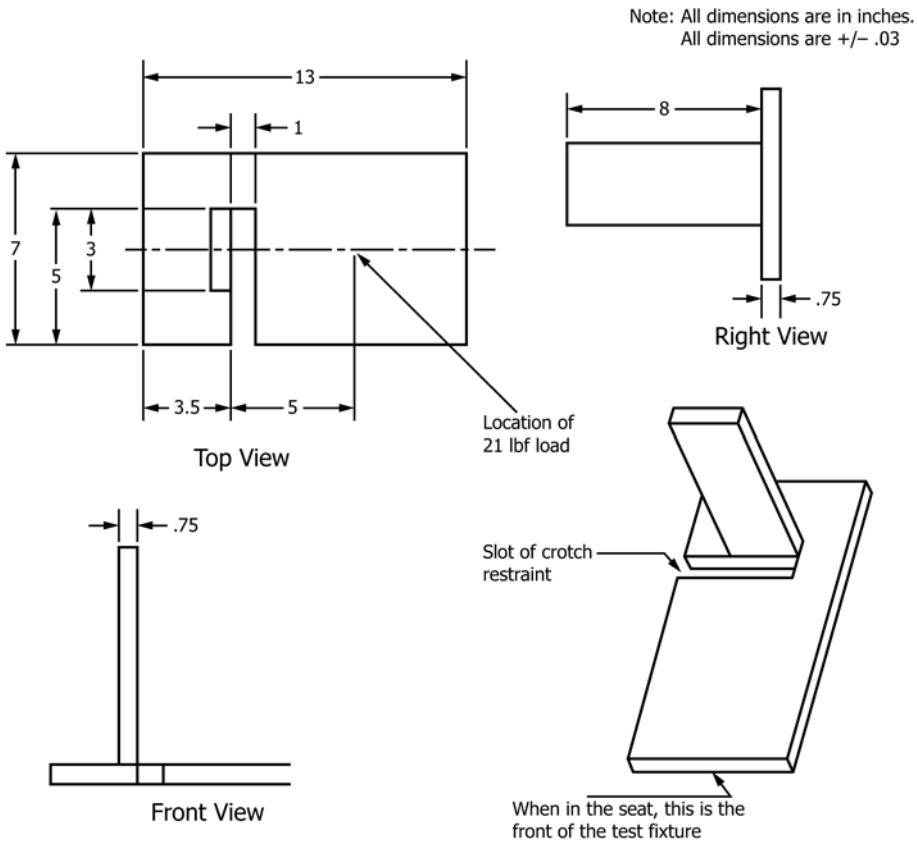

FIG. 8 Forward Stability Test Fixture

FIG. 9 Forward Stability Test

7.4.2.3 Place the stability test fixture for infant/toddler rockers (Fig. 10) in the seat with the back edge of the gage aligned with the seat bight. Position the crotch belt in the fixture slot for the crotch restraint, and secure the waist restraints to the crotch restraint. If the product has shoulder straps as part of the restraint system, secure and tighten around the test fixture.

7.4.2.4 Tighten the restraint system in such a manner that you can comfortably slide your little finger between the strap and the test fixture cylinder, while maintaining alignment of the gage back edge and the seat bight.

7.4.2.5 Position the product on the inclined surface facing down the incline, with the lower most frame member(s) in contact with the stop.

7.4.2.6 While holding the product to prevent product from tipping forward, gradually apply a pull force of 10 lbf (44 N) parallel to the test fixture (Fig. 11) on the waist restraint near the center of the fixture to induce any potential forward displacement allowed by the seat or restraint. Gradually apply the force within 5 s and maintain for an additional 10 s.

7.4.2.7 Release the product to allow for any tipping.

7.4.3 *Sideward and Rearward Stability:*

7.4.3.1 *Test Equipment:*

(1) CAMI Infant Dummy, Mark II (Fig. 1)

(2) The test surface shall be an impregnated high pressure laminate of unspecified color with a smooth matte finish.

7.4.3.2 Set up the rocker in the manufacturer's use position with the kickstand up to allow rocking if applicable. For rockers with an adjustable seat back, adjust the seat into the most upright recommended manufacturers use position.

7.4.3.3 Place a CAMI Infant Dummy, Mark II (see Fig. 1) in the rocker with the restraint system fastened in accordance with the manufacturer's instructions.

7.4.3.4 Position the rocker in the most unfavorable sideward or rearward position on a test surface inclined at 20°. The most unfavorable position could be a position in between the true sideward and rearward positions. If necessary, prevent the product from sliding but do not prevent it from tipping.

7.4.3.5 Maintain for 1 min.

7.4.3.6 Repeat 7.4.3.4 and 7.4.3.5 with the kickstand deployed to prevent rocking if applicable.

7.4.3.7 For rockers with an adjustable seat back, adjust the seat into the most reclined recommended manufacturers use position and repeat 7.4.3.3 through 7.4.3.6.

7.5 *Static Slip Resistance:*

7.5.1 *Test Equipment:*

7.5.1.1 CAMI Newborn Infant Dummy (Fig. 2).

7.5.1.2 *Test Surface:*

(1) The test surface shall be an impregnated high pressure laminate of unspecified color with a smooth matte finish.

(2) The laminate should be mounted on a flat surface, with a thickness no less than ¾ in. (19 mm), in accordance with the laminate manufacturer's instructions.

(3) The test surface shall be fixed at an angle of 10° from horizontal.

7.5.2 *Test Preparation:*

7.5.2.1 *Test Surface:*

(1) Clean the test surface with a damp cloth. Any products that will interfere with the performance of the laminate are unacceptable, for example, solvents or cleaners that leave residue or alter the surface finish.

(2) Precautions should be taken to prevent the contamination of the testing surface. Graduation or pencil marks are unacceptable unless located in a position that never interferes with the performance of the test product (that is, along the edge of the surface).

7.5.2.2 Clean slip-resistant pads, feet, or any other objects on the rocker that come in contact with the inclined surface with a damp cloth.

7.5.3 *Static Slip Resistance Test:*

7.5.3.1 Set up the rocker in the manufacturer's use position with the kickstand deployed to prevent rocking.

7.5.3.2 Place the CAMI newborn infant dummy (Fig. 2) in the seat. Secure the dummy and adjust the restraint system in accordance with the manufacturer's instructions.

7.5.3.3 Place weighted rocker onto the test surface (7.5.1.2) with the front of the rocker facing directly down the incline.

7.5.3.4 Measure any movement of the rocker from the original position after 1 min.

7.5.3.5 Repeat 7.5.3.2 and 7.5.3.4 for the left side, right side, and rearward directions.

7.6 *Structural Integrity:*

7.6.1 *Dynamic Load:*

7.6.1.1 *Test Equipment*—Standard 6-in. (150-mm) weld cap (see Fig. 12).

7.6.1.2 Position the rocker in the most upright manufacturer's recommended use position. This position could be with or without the kickstand up.

7.6.1.3 Place the weld cap with the convex surface down in the seat. Affix a weight to the top of the weld cap to achieve a total weight of 33 lb (15.0 kg).

7.6.1.4 Drop the 33 lb (15 kg) test weight onto the seat from a distance of 1 in. (25 mm) one hundred times.

7.6.2 *Static Load:*

7.6.2.1 *Test Equipment*—6-by-6–in. (150-by-150–mm) wood block that is ¾ in. (19 mm) thick.

7.6.2.2 Position the rocker in the most upright manufacturer's recommended use position. This position could be with or without the kickstand up.

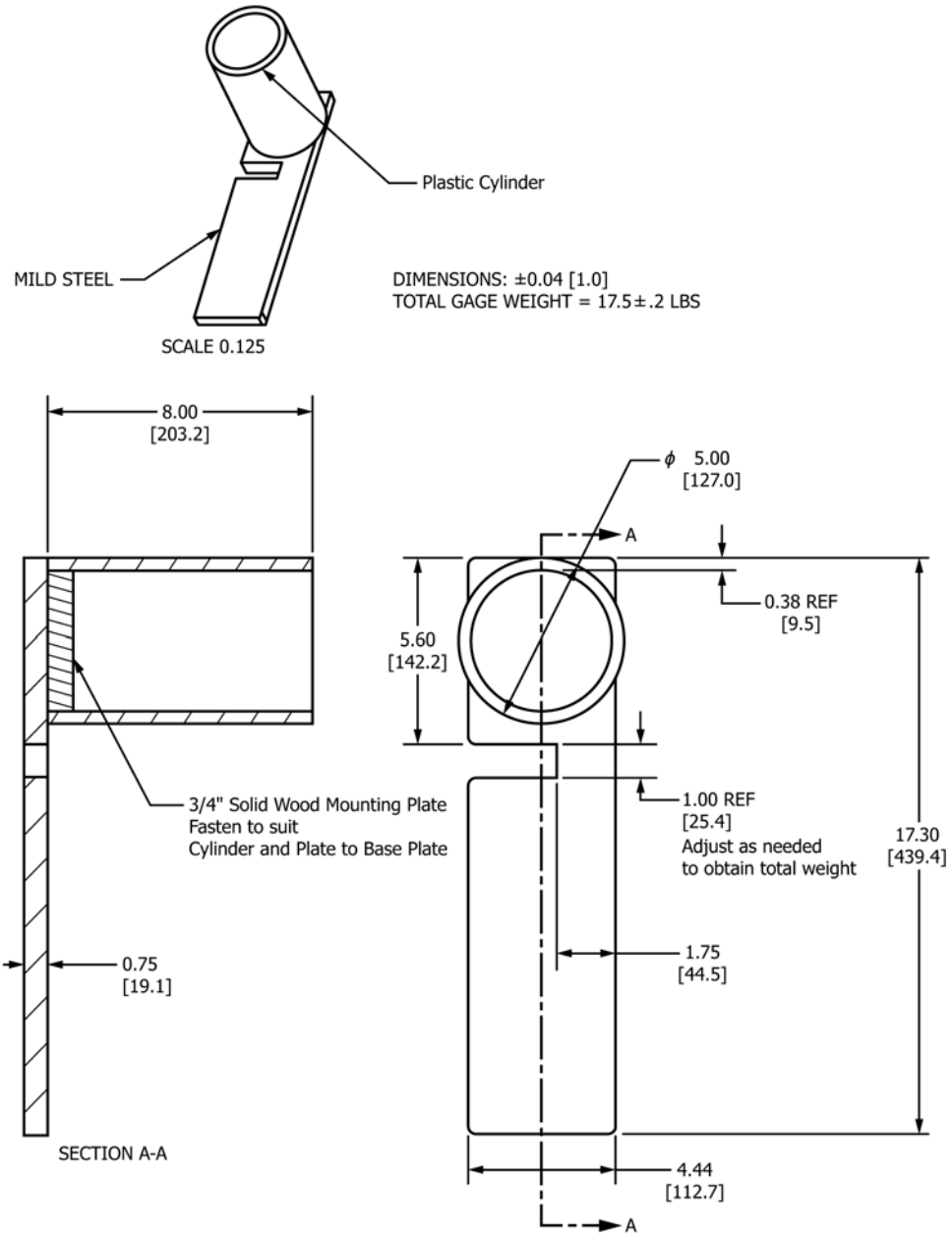

FIG. 10 Forward Stability Test Fixture for Infant/Toddler Rockers

FIG. 11 Forward Stability Test for Infant/Toddler Rockers

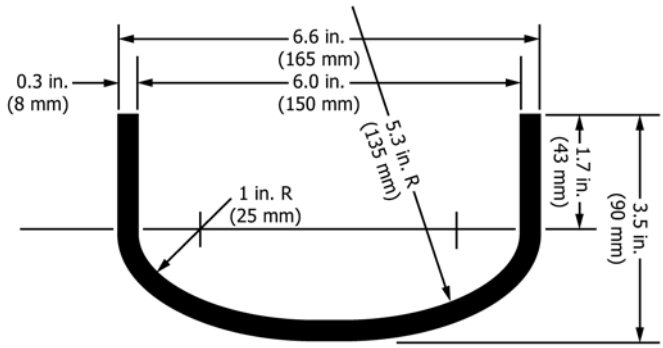

FIG. 12 Weld Cap

7.6.2.3 Place the wood block on the center of the seat.

7.6.2.4 Gradually apply the test weight that is specified in 7.6.2.4*(1)* or 7.6.2.4*(2)* on the wood block within a period of 5 s and maintain for an additional 60 s.

(1) For infant rockers, the test weight is 60 lb (27.2 kg) or three times the maximum manufacturer's recommended weight, whichever is greater.

(2) For infant/toddler rockers, the test weight is 105 lb (47.6 kg) or three times the maximum manufacturer's recommended weight, whichever is greater.

7.6.2.5 If an infant/toddler rocker requires a different frame configuration for toddler age use, the product shall be tested in all configurations. Adjusting the recline mechanism or adjusting the kickstand is not considered a different frame configuration.

7.7 *Disassembly/Collapse:*

7.7.1 Position the rocker in a manufacturer's recommended use position. This position could be with or without the kickstand up.

7.7.2 Place the CAMI newborn infant dummy (Fig. 2) in the seat.

7.7.3 Apply a force of 15 lbf (67 N) to a single frame attachment point in the direction(s) associated with disassembly. Do not apply the force directly to the kickstand.

7.7.4 Gradually apply the force within a period of 5 s and maintain for an additional 10 s. If necessary, secure a portion of the product to prevent it from moving. The means of securing the product shall not prevent disassembly.

7.7.5 Repeat 7.7.3 and 7.7.4 for all other frame attachment points.

7.8 *Toy Bar Attachment Integrity:*

7.8.1 *Toy Bar Static Test:*

7.8.1.1 *Test Equipment*—6 by 6-in. (150 by 150-mm) wood block that is ¾ in. (19 mm) thick.

7.8.1.2 Place the wood block on the center of the seating surface with one edge contacting the seat bight. Load the rocker with 40 lb or two times the manufacturer's maximum recommended weight, whichever is greater, in the center of the block. Gradually lift the rocker, at the grasping point (see 3.1.5) upward, in a direction perpendicular to the test surface, within a period of 5 s and maintain for 1 min. Do not restrict movement of the product once lifted.

7.8.1.3 Place the wood block on the center of the seating surface with one edge contacting the seat bight. Load the rocker with a 5 lb (2.3 kg) weight in the center of wood block. Gradually lift the rocker, at the grasping point (see 3.1.5) upward, in a vertical direction, within a period of 5 s. Do not restrict movement of the product during the test.

7.8.2 *Toy Bar Dynamic Test:*

7.8.2.1 Place and secure the CAMI infant dummy, Mark II (Fig. 1) in the rocker using the restraint system and adjust according to the manufacturer's instructions. Attach a cable to the toy bar at the center of the grasping point (see 3.1.5). Lift the rocker off the test surface and allow the rocker to drop 2 in. (5.1 cm). Assure that the cable goes taut and that the rocker does not contact the test surface.

7.8.2.2 Repeat 7.8.2.1 four additional times for a total of five times.

7.9 *Permanency of Labels and Warnings:*

7.9.1 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 into pieces upon removal, or such action damages the surface to which it is attached.

7.9.2 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.

7.9.3 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 the direction most likely to cause failure using a ¾-in. (19-mm) diameter clamp surface. Gradually apply the force within a period of 5 s and maintain for an additional 10 s.

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

7.9.4.1 Apply the tape test defined in Test Method B of Test Method D3359, eliminating parallel cuts.

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

7.9.4.3 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.

7.9.5 A non-paper label, during an attempt to remove it without the aid of tools or solvents, shall not fit entirely within the small parts cylinder defined in 16 CFR 1501 if it can be removed.

7.10 *Protective Components:*

7.10.1 Secure the rocker so that it cannot move during the performance of the following tests.

7.10.2 *Torque Test*—A torque shall be gradually applied to any graspable component within a period of 5 s in a clockwise direction until either the component rotates 180° from the original position or the torque attains 2 lbf-in. (0.2 N-m). If the rocker has a toddler age use, the torque applied shall increase to 4 lbf-in (0.4 N-m). The torque or maximum rotation shall be maintained for an additional 10 s. The torque shall then be removed and the protective components permitted to return to a relaxed condition. This procedure shall then be repeated in a counterclockwise direction.

7.10.3 *Tension Test:*

7.10.3.1 Attach a force gage to the protective component by means of any suitable device. For protective components that cannot reasonably be expected to be grasped between thumb and forefinger or teeth on their outer diameter but have a gap of at least 0.040 in. (1.00 mm) between the rear of the surface of the protective component and the structural member of the rocker to which they are attached, a clamp such as the one shown in Fig. 13 may be a suitable device.

7.10.3.2 Assure that the attachment device does not compress or expand the protective component so that it hinders any possible removal.

7.10.3.3 Gradually apply a 10-lbf (45-N) force in the direction that would normally be associated with the removal of the protective component over a 5-s period and maintain for

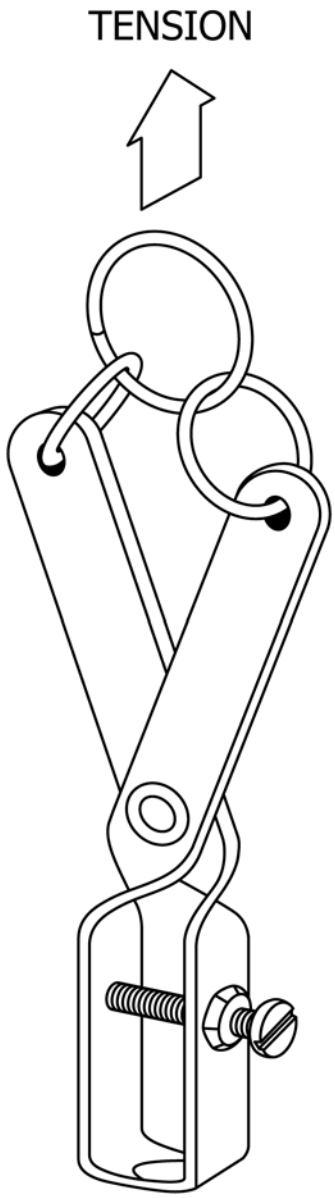

FIG. 13 Tension Test Adapter/Clamp

an additional 10 s. If the rocker has a toddler age use, the force applied shall increase to 15-lbf (67 N).

8. Marking and Labeling

8.1 Each product and its retail package shall be marked or labeled clearly, legibly, and permanently to indicate the following (note that an upholstery label required by law shall not be used to meet the requirements of 8.1):

8.1.1 The name of the manufacturer, distributor, or seller, and either the place of business (city, state, and mailing address, including zip code), or telephone number, or both.

8.1.2 A code mark or other means that identifies the date (month and year as a minimum) of manufacture.

8.2 The manufacturer shall change the model number whenever the rocker undergoes a significant structural or design modification or a change that affects its conformance to this consumer safety specification.

8.3 Each rocker shall be labeled with warning statements. The warning statements shall be in contrasting color(s), permanent, conspicuous, and in sans serif style font.

8.3.1 In warning statements, the safety alert symbol "⚠" and the word "WARNING" shall not be less than 0.2 in. (5 mm) high. The remainder of the text shall be characters whose upper case shall be at least 0.1 in. (2.5 mm) high.

8.3.2 The following warning statement shall be included exactly as stated below:

"⚠ WARNING: Prevent serious injury or death:"

8.3.3 Additional warning statements shall address the following:

8.3.3.1 Never leave child unattended.

8.3.3.2 This product is not intended for unsupervised or prolonged periods of sleep.

8.3.3.3 Fall Hazard: Child's activity may move rocker. Use only on floor. Never use on any elevated surface.

8.3.3.4 Suffocation Hazard: Never use on a soft surface (bed, crib, sofa, cushion), as seat may tip over and cause suffocation.

8.3.4 If the rocker is only intended to be used until child can sit unassisted (approximately 6 months), the warning in 8.3.4.1 and 8.3.4.2 shall be addressed.

8.3.4.1 Always use restraint system.

8.3.4.2 Never use for a child able to sit up unassisted.

8.3.5 If the rocker has a secondary use for toddler age, the warning in 8.3.5.1 shall be addressed. If the rocker with secondary use for toddler age has shoulder straps as part of the restraint system, the warning in either 8.3.5.2 or 8.3.5.3 shall be addressed. If the rocker does not have shoulder straps as part of the restraint system, the warning in 8.3.5.2 shall be addressed.

8.3.5.1 The upright position is only for children who have developed enough upper body control to sit up without tipping forward.

8.3.5.2 Always use restraint system until child is able to climb in and out of the product unassisted.

8.3.5.3 Always use restraint system.

8.3.6 If the rocker is provided with a toy bar that is not marketed to be used as a handle, the warning in 8.3.6.1 shall be addressed.

8.3.6.1 The toy bar is not a carry handle. Never use toy bar to lift or carry rocker.

9. Instructional Literature

9.1 Instructions must be provided with the rocker and shall be easy to read and understand. Assembly, maintenance, cleaning, operating, and adjustment instructions and warnings, where applicable, must be included.

9.1.1 The instructions shall contain statements that address each of the following:

9.1.1.1 Read all instructions before use of the rocker.

9.1.1.2 Keep instructions for future use.

9.1.1.3 Do not use this rocker if it is damaged or broken.

9.1.1.4 Instructions on how to use the restraint system.

9.1.1.5 Instructions must indicate the manufacturer's recommended maximum weight, height, age, developmental level, or combination thereof of the occupant for which the

rocker is intended. If the rocker is not intended for use by a child for a specific reason, the instructions shall so state this limitation.

9.2 *Warning Statements with the Instructional Literature:*

9.2.1 In warning statements, the safety alert symbol and the word "WARNING" shall not be less than 0.2 in. (5 mm) high. The remainder of the text shall be characters whose upper case shall be at least 0.1 in. (2.5 mm) high.

9.2.2 The instructions shall contain all of the warnings as specified in 8.3.

APPENDIX

(Nonmandatory Information)

X1. RATIONALE

X1.1 *Subsection 6.1.2*—The angle measurements for the minimum and maximum seat back angles are in accordance with EN12790:2009 section 5.10. The angle limitations are designed to provide adequate containment throughout the seat's range of motion.

X1.2 *Subsection 6.3.1.1*—The forward salability test is required if the rocker is to be used after a child can sit up unassisted due to incident data showing injuries because of occupants leaning forward between the ages of 6 and 9 months.

X1.3 *Subsection 6.4*—This requirement is in accordance with Specification F2050 Subsection 6.4 and is referenced because the rounded bottom of a hand held infant carrier closely matches the configuration of the runners on a rocker, and both may or may not include a provision for a non-rocking mode.

X1.4 *Subsection 7.3.2*—This test is in accordance with Specification F2167 Subsection 6.1.3 because the seat restraints on infant/toddler rockers are attached in much the same manner as they are on infant bouncers.

X1.5 *Subsection 7.4.2.7*—17.3 in. plate length for the rocker forward stability gage is the average rump to crown height of a 6 month old. This is to approximate the weight cantilever when a child is leaning all the way forward. The incline plane angle of 18° is used based on anecdotal data from existing rockers.

X1.6 *Subsection 7.7.4*—The required 15-lbf force is intended to exceed the forces the attachment points would see while the product is slid across a surface or while the product is being carried.

X1.7 *Subsection 8.3.5*—Warning section for toddler age usage was edited to provide manufacturers the option to require restraint usage through the entire toddler age.