



Designation: F2088 – 11a

## Standard Consumer Safety Specification for Infant Swings<sup>1</sup>

This standard is issued under the fixed designation F2088; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### INTRODUCTION

This consumer safety specification addresses infant swing incidents identified by the U.S. Consumer Product Safety Commission (CPSC).

In response to incident data compiled by the CPSC, this consumer safety specification attempts to minimize the following: (1) swings tipping over or collapsing, (2) structural failures, and (3) entanglement in the restraints or entrapment in leg holes. This consumer safety specification is intended to cover normal use and reasonably foreseeable misuse or abuse of infant swings. This specification does not cover swings that are blatantly misused or used in a careless manner that disregards the safety instructions and warnings provided with each infant swing.

This consumer safety specification is written within the current state-of-the-art of infant swing technology and will be updated whenever substantive information becomes available that necessitates additional requirements or justifies the revision of existing requirements.

### 1. Scope

1.1 This consumer safety specification establishes safety performance requirements, test methods, and labeling requirements to minimize the hazards to infants presented by swings as identified in the introduction.

1.2 This consumer safety specification is intended to minimize the risk of injuries to infants resulting from normal use and reasonably foreseeable misuse or abuse of infant swings. It is not intended to address all incidents and injuries resulting from the interaction of other persons with the infant in the swing.

1.3 No swing 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 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.

1.5 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:<sup>2</sup>

D3359 Test Methods for Measuring Adhesion by Tape Test  
F963 Consumer Safety Specification for Toy Safety

#### 2.2 Federal Standards:

16 CFR Part 1303 Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint<sup>3</sup>

16 CFR Part 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<sup>3</sup>

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<sup>3</sup>

1500.50-.51—Test Method for Simulating Use and Abuse of Toys and Other Articles Intended for Use by Children<sup>3</sup>

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

<sup>1</sup> This consumer safety specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.21 on Infant Carriers, Bouncers and Baby Swings.

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<sup>2</sup> 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.

<sup>3</sup> Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.



FIG. 1 CAMI Infant Dummy, Mark II

### Hazards Because of Small Parts<sup>3</sup>

#### 2.3 Other Documents:

CAMI Infant Dummy, Mark II (see Fig. 1)<sup>4</sup>

CAMI Newborn Dummy (see Fig. 2)<sup>5</sup>

### 3. Terminology

#### 3.1 Definitions of Terms Specific to This Standard:

3.1.1 *conspicuous, n*—a label which 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 infant swing but not necessarily visible from all positions.

3.1.2 *cradle swing, n*—an infant swing which is intended for use by a child lying flat.

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

3.1.4 *infant swing, n*—a stationary unit with a frame and powered mechanism that enables an infant to swing in a seated position. An infant swing is intended for use with infants from birth until a child is able to sit up unassisted.

3.1.5 *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.

3.1.6 *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.

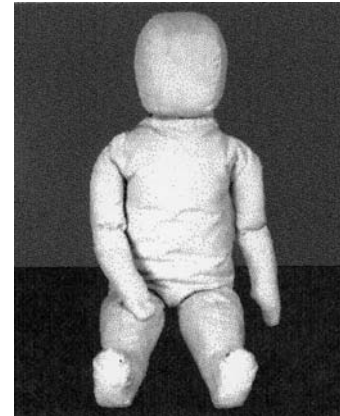


FIG. 2 CAMI Newborn Dummy

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 which tears without the aid of tools and leaves a fibrous edge.

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

3.1.10 *structural component, n*—any load bearing member or part of the product that supports the weight or portion of the weight of the occupant.

3.1.11 *travel swing, n*—a low profile, compact swing having a distance of 6 in. or less between the underside of the seat bottom and the support surface (floor) at any point in the seat's range of motion.

### 4. Calibration and Standardization

4.1 All testing shall be conducted on a concrete floor that may be covered with 1/8 in. (3 mm) thick vinyl floor covering, unless 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 an ambient temperature of 73° ± 9°F (23 ± 5°C) for at least 1 hour 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 *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 the 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 this testing to this specification.

5.3 The paint and surface coating on the product shall comply to 16 CFR 1303.

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

<sup>4</sup> 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.

<sup>5</sup> Drawing numbers 126-0000 through 126-0015 (sheets 1 through 3), 126-0017 through 126-0027, a parts list entitled "Parts List for CAMI Newborn Dummy", and a construction manual entitled, "Construction of the Newborn Infant Dummy" (July 1992). Copies of the materials may be inspected at NHTSA's Docket Section, 400 Seventh Street, SW., Room 5109, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.