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#### Designation: F2043-00 Designation: F 2043 - 09

An American National Standard

### Standard Classification for Bicycle Usage<sup>1</sup>

This standard is issued under the fixed designation F 2043; 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 ( $\varepsilon$ ) indicates an editorial change since the last revision or reapproval.

#### 1. Scope

#### 1.1This classification covers bicycle usage conditions.

1.1 1.1 This classification covers bicycle usage conditions and a system of identifying bicycles and components for use within that system.

1.2 The values stated in SI units are to be regarded as the standard. The values in parentheses are for information only.

#### 2. Referenced Documents

2.1 Federal Standard:<sup>2</sup>

16 CFR 1512 Title 16—Commercial Practices, Chapter 11—Consumer Product Safety Commission, Part 1512—Requirements for Bicycles

#### 3. Terminology

2.1

3.1 Definitions:

2.1.1bicycle—a two wheeled, single track, articulated vehicle that is solely human powered.

2.1.2 conditions—a generalized description of surface environments and speeds where a bicycle may be ridden. 2.1.3technical

3.1.1 aftermarket, n—components intended to be fitted to a bicycle but not included as original equipment with the bicycle.

3.1.2 bicycle, n-two-wheeled, single-track, articulated vehicle that is solely human powered.

3.1.3 components, n-devices or equipment added to a bicycle frame to render it a complete, functional unit (for example, brakes, shifters, gears, and so forth).

3.1.4 conditions, n—generalized description of surface environments and speeds where a bicycle may be ridden.

3.1.5 jump, n—event when both bicycle wheels leave the ground in which the height of a jump is the maximum height above ground of the lowest point of the higher wheel when both wheels are off the ground.

<u>3.1.6 sidewalk bicycle, n—bicycle meeting the definition of a sidewalk bicycle as defined in 16 CFR 1512.</u>

3.1.7 *technical*, *adj*—riding environment requiring rapid changes in speed, direction, and balance.

#### **3.Significance and Use**

3.1This classification provides a uniform set of usage definitions within the bicycle industry.

#### 4. Significance and Use

4.1 This classification provides a uniform set of usage definitions within the bicycle industry. Included within this classification is a set of graphical indicators to provide retailers and consumers with an indication of the intended use of a particular bicycle or aftermarket components.

#### 5. Basis of Classification

4.1

5.1 Uses:

4.1.1

5.1.1 Condition 0—This is a set of conditions for operation of a children's bicycle under appropriate parental supervision in a

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<sup>&</sup>lt;sup>1</sup> This classification is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.10 on Bicycles.

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manner consistent with the child's bicycling skills. Bicycles intended for this use are "sidewalk bicycles." In addition, bicycles intended for this condition are limited to riders at least three years old and weighing less than 36 kg (80 lb). Bicycles intended for this use classification shall be identified in accordance with the labeling requirements of Section 6 using the graphical symbol (icon) illustrated in Fig. 1. The icon in this figure is black on a white background with a black border.

5.1.2 Condition 1—A set of conditions for operation of a bicycle on a regular paved surface where the tires do not lose ground contact.

4.1.2—This is a set of conditions for the operation of a bicycle on a regular paved surface or smooth unpaved surfaces where the tires may unintentionally lose ground contact. Bicycles intended for this use classification shall be identified in accordance with the labeling requirements of Section 6 using the graphical symbol (icon) illustrated in Fig. 2. The icon in this figure is green on a white background with a black border.

5.1.3 Condition 2—A set of conditions for operation of a bicycle which include Condition 1 and includes smooth gravel roads and smooth improved trails with moderate grades. This set of conditions is not intended to include terrain that results in the tires losing ground contact.

4.1.3—This is a set of conditions for the operation of a bicycle that includes Condition 1 as well as unpaved and gravel roads and trails with moderate grades. In this set of conditions, contact with irregular terrain and loss of tire contact with the ground may occur. Jumps should be limited to 30 cm (12 in.) or less. Bicycles intended for this use classification shall be identified in accordance with the labeling requirements of Section 6 using the graphical symbol (icon) illustrated in Fig. 3. The icon in this figure is green on a white background with a black border.

<u>5.1.4</u> Condition 3—A set of conditions for operation of a bicycle that includes Condition 1 and Condition 2 as well as rough trails, rough unpaved roads, and rough technical areas and unimproved trails. In this set of conditions, contact with irregular terrain and momentary loss of tire contact with the ground may occur.

4.1.4—This is a set of conditions for operation of a bicycle that includes Condition 1 and Condition 2 as well as rough trails, rough unpaved roads, and rough technical areas and unimproved trails. Jumps of 60 cm (24 in.) or less are anticipated. Bicycles intended for this use classification shall be identified in accordance with the labeling requirements of Section 6 using the graphical symbol (icon) illustrated in Fig. 4. The icon in this figure is blue on a white background with a black border.

5.1.5 Condition 4—A set of conditions for operation of a bicycle which includes Condition 1, Condition 2, Condition 3, and downhill grades on rough trails at speeds in excess of 40 km/h (25 mph).

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FIG. 1 Condition 0 Icon