Designation: F 853 – 04

# Standard Practice for Maintenance Procedures for Amusement Rides and Devices[1]

This standard is issued under the fixed designation F 853; 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.

## 1. Scope

1.1 This practice establishes information for maintenance procedures of amusement rides and devices.

1.2 *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]

F 846 Guide for Testing Performance of Amusement Rides and Devices

F 1159 Practice for Design and Manufacture of Patron Directed, Artificial Climbing Walls, Dry Slide, Coin Operated and Purposeful Water Immersion Amusement Rides and Devices and Air-Supported Structures

F 1193 Practice for Amusement Ride and Device Manufacturer Quality Assurance Program and Manufacturing Requirements

F 2291 Practice for Design of Amusement Rides and Devices

## 3. Significance and Use

3.1 The purpose of this practice is to delineate information for the maintenance of amusement rides and devices.

## 4. Manufacturer's Responsibility

4.1 The manufacturer of an amusement ride or device shall provide, with delivery of each ride or device, documented maintenance instructions in the English language. These instructions shall include, but not be limited to, the following:

4.1.1 Description of the ride or device operation, including the function and operation of its major components.

4.1.1.1 Description of the designed motion(s) of the ride or device during operation.

4.1.2 Description of the recommended procedures for installation, setup, disassembly, and transportation of an amusement ride or device.

4.1.3 Recommended lubrication procedures for the amusement ride or device.

4.1.3.1 Recommended types and specifications of lubricants.

4.1.3.2 Recommended frequency of lubrication.

4.1.3.3 A lubrication drawing, chart, or instruction, showing the location of lubrication points.

4.1.3.4 Recommended special method of lubrication, where applicable.

4.1.4 Description of the recommended daily, preopening inspection to be performed and identification of special care areas and recommended procedures for inspection and maintenance of these areas.

4.1.5 Description, including frequency, of recommended maintenance inspections and testing, other than daily preopening inspection.

4.1.5.1 Recommended wear limits or tolerances, where deemed necessary by the manufacturer.

4.1.5.2 Recommended operational tests, along with minimum intervals for these tests to be performed, that will allow the owner/operator of the ride or device to determine whether a given ride or device is operating within recommended prescribed operational limits.

4.1.5.3 Where applicable, recommended nondestructive testing along with appropriate acceptance criteria, including suggested frequency and the special parts of areas to be tested.

4.1.5.4 Tests recommended pursuant to 4.1.5 shall meet the following criteria:

(*1*) The tests shall have been performed satisfactorily by the manufacturer prior to the sale of the amusement ride or device,

(*2*) The test shall be a test which the amusement ride or device, or element, can reasonably be expected to pass during the expected life of the amusement ride or device, or element, assuming recommended maintenance and operating procedures have been followed,

[1] This practice is under the jurisdiction of ASTM Committee F24 on Amusement Rides and Devices and is the direct responsibility of Subcommittee F24.30 on Maintenance and Inspection.

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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.

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