



Designation: F3168 – 20a

# Standard Practice for Hayride Attractions<sup>1</sup>

This standard is issued under the fixed designation F3168; 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 applies to hayride attractions used primarily in amusement, entertainment, recreational or agritourism applications. Such applications include but are not limited to family entertainment centers, camps, shopping centers, malls, seasonal attractions, pumpkin patches, corn mazes, farms, tree farms, temporary special events, fairs, carnivals and municipal parks.

1.2 This practice is intended to provide consistent criteria, references and operational considerations in the specifications, management and operation of hayride attractions.

1.3 This practice establishes guidelines that will provide a level of conformity for the purpose of reducing potential hazards to patrons, attendants, actors and spectators.

1.4 This practice is intended to be taken into consideration by architects, designers, engineers, construction contractors, manufacturers, appropriate inspectors, owners and operators who are involved with the design, construction, manufacture, installation, operation, maintenance, inspection or major modification of hayride attractions.

1.5 This practice specifically *includes* the following types of devices or attractions:

1.5.1 Hayride attractions used as an element or in combination with another hayride attraction, corn maze, zombie walk, paintball game, tree harvesting farm, seasonal attraction, haunted house, haunted attraction, fair, exposition or agritourism event.

1.5.2 Hayride attractions used primarily in off road applications, fixed courses or designated areas.

1.5.2.1 Hayride attractions in this standard are towed by mechanical means.

1.6 This practice specifically *excludes* the following types of devices or attractions:

1.6.1 Hayride attractions designed exclusively for private or home use.

1.6.2 Amusement rides, devices or attractions with a mechanical power rating of 27 (hp) or less and commonly referred to as a trackless train, mall train, tandem wagon or barrel train.

1.6.3 Animal powered or drawn carriages, wagons or trailers.

1.6.4 Human powered or drawn carriages, wagons or trailers.

1.6.5 Passenger trams used primarily in amusement parks, theme parks, zoos, wildlife parks or water parks.

1.6.6 Amusement rides, devices or attractions where the passenger carriers are guided by a rail or track system.

1.6.7 Parade floats.

1.7 This standard practice does not purport to address all of the hazards associated with hayride attractions. The practice's existence alone will not prevent injuries. Like other physical activities, hayride attraction use involves the risk of injury, particularly if the equipment is used improperly or if users fail to follow the posted rules or fail to follow attendant's instructions. The text of this standard practice references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.8 This practice includes an appendix (non-mandatory), which provides additional information (for example, rationale, background, interpretations, drawings, commentary and so forth) to improve the user's understanding and application of the criteria presented in this practice. The appendix information shall not be interpreted as mandatory criteria.

1.9 This standard includes the following sections:

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1.10 *Units*—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.

1.11 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.12 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

**F747 Terminology Relating to Amusement Rides and Devices**

**F770 Practice for Ownership, Operation, Maintenance, and Inspection of Amusement Rides and Devices**

**F1193 Practice for Quality, Manufacture, and Construction of Amusement Rides and Devices**

**F2291 Practice for Design of Amusement Rides and Devices**

## 3. Terminology

3.1 Reference Terminology **F747-15**.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *agritourism, n*—the act of conducting an activity for the enjoyment of the public that is related in some way to agriculture.

3.2.2 *hayride attraction, n*—an experience in which passengers board a wagon or trailer, typically a wagon filled with straw or hay, and are taken on a set course.

## 4. Significance and Use

4.1 The purpose of this standard practice is to delineate requirements regarding the design, operation, maintenance and inspection of hayride attractions with the primary purpose of entertainment, recreation or agritourism.

## 5. Design

5.1 Design requirements for hayride attractions shall be in accordance with Practice **F2291-18** as applicable, and the following exceptions and inclusions unique to hayride attractions.

5.1.1 This section establishes information and procedures for the design of hayride attractions and major modifications to hayride attractions.

5.2 Adjustments to Terms in Practice **F2291-18**:

5.2.1 Replace the term “amusement rides and devices” with “hayride attractions”.

5.2.2 Replace the terms “amusement ride or device” or “ride or device” with “hayride attraction”.

5.2.3 Replace the terms “ride analysis” with “device analysis”.

5.3 *Tow Vehicles*—The tow vehicle is used to pull a wagon/trailer that is conveying patrons to, through or from an attraction or over a pathway or trail. The tow vehicle shall have the weight, capacity and traction to be able to control a fully loaded wagon/trailer. All tow vehicles or the wagon/trailer shall be equipped with a fire extinguisher and some form of communication system.

NOTE 1—If the tow vehicle is a tractor, then the weight of the tractor can be increased by adding weight fluid in the rear tires and additional weight on the front of the tractor. If additional weight is necessary, weight should be added according to the manufacturer’s guidelines.

5.4 *Wagons/Trailers*—Since the size and type of wagons/trailers vary, the wagon/trailer being used shall be of the type that the tow vehicle is able to control it on the terrain when fully loaded. Wagons/Trailers shall be constructed to reduce the risk of injury while entering, transporting and exiting the wagon/trailer. Each venue shall determine how its wagon/trailer shall be constructed based upon the particular circumstances of that venue.

5.4.1 All wagons/trailers shall be equipped with a patron barrier or bulkhead that is installed along the side of the wagon/trailer closest to the tow vehicle that will prevent anyone from exiting the wagon/trailer on the side closest to the tow vehicle. The height of the patron barrier or bulkhead shall be a minimum of 18 in. determined by each venue based upon the circumstances of that venue. (See **Fig. X1.1**.)

5.4.2 All wagons/trailers shall have a tamper-proof locking hitch connecting the wagon/trailer to the tow vehicle. (See **Fig. X1.2**.)

5.4.3 All wagons/trailers shall have a safety chain or steel cable of appropriate strength installed to connect the wagon/trailer to the tow vehicle. The safety chain/cable shall be attached with a tamper-proof locking device. The locking device shall be of the type that it cannot accidentally become detached. (See **Fig. X1.3**.)

5.5 All wagons/trailers shall be marked with a unique identifiable feature so that it easily can be identified. Examples include but are not limited to, numbers, letters, symbols or colors. (See **Fig. X1.4**.)

5.6 *Gates*—If the wagon/trailer has attached steps or an opening in the raised sides for means of loading/unloading, a gate or other means of a patron barrier is required. The need for

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

a gate and the type of gate and possible locking mechanism will depend upon each venue and the circumstances of that particular venue.

**5.7 Loading/Unloading**—Common methods of loading and unloading wagons/trailers consist of: wagons/trailers outfitted with steps that are attached to the wagon/trailer or use of a loading or unloading dock.

**5.7.1** All steps or ramps shall be of appropriate dimensions (height, width, tread and slope) to support the occupancy load of the attraction and provide a method of upward or downward, or both, ingress/egress. Loading docks and ramps shall comply with Practice **F2291-18**, Section 14 as it applies to steps, handrails and risers. Based upon the unique circumstances of the venue, consideration shall be given to the appropriate landing space required and if any additional features should be implemented, such as handrails or extra traction.

**5.7.2** During nighttime operation, the loading and unloading areas shall be illuminated in order to increase patron visibility.

## **6. Ownership, Operation, Maintenance, Inspection and Training Requirements**

**6.1** Ownership, operation, maintenance, inspection and training requirements for hayride attractions shall be in accordance with Practice **F770-18** as applicable, and the exceptions and inclusions unique to hayride attractions.

**6.2** Adjustments to common terms used throughout Practice **F770-18**.

**6.2.1** Replace the term “amusement rides and devices” with “hayride attractions” except for subsection 2.1 of Practice **F770-18**.

**6.2.2** Replace the terms “amusement ride or device” or “ride or device” with “hayride attraction”.

### **6.3 Loading and Unloading:**

**6.3.1** Before loading or unloading, the tow vehicle shall come to a complete stop and be parked in such a way that the tow vehicle will not move while the wagon/trailer is being loaded or unloaded. If the average grade of the ground over the combined length of the tow vehicle and wagon/trailer is greater than 2% then the driver shall remain in the tow vehicle while the wagon/trailer is being loaded or unloaded.

**6.3.2** Each venue shall determine whether or not it is appropriate to designate an individual to assist patrons who are loading or unloading from the wagon/trailer.

### **6.4 Owner/Operator Responsibilities:**

**6.4.1** Each owner/operator shall have written operating procedures for the hay ride attraction, which are an integral part of their staff-training program. These procedures shall include, but not be limited to:

**6.4.2** Description of the hay ride operation.

**6.4.3** Specific duties assigned of each assigned operator(s) and attendant(s) position(s) of the hay ride operations.

**6.4.4** General safety procedures.

**6.4.5** Instructions on specific procedures to follow in the event of unusual conditions or an interruption of operation including an evacuation plan outlined in **6.13**.

**6.4.6** Additional instructions, if any provided by the Owner/Operator.

### **6.5 Inspection Program:**

**6.5.1 Pre-Opening Inspection**—Owner/operators of hayride attractions shall have an inspection program consistent with the inspections outlined in this practice and Practice **F1193-18a**.

**6.5.2** Prior to allowing patrons onto the hayride attraction, the owner/operator shall conduct or cause to be conducted a daily documented preopening inspection, based on provided instructions, to ensure the proper operation of the hayride attraction. The inspection shall include, but not be limited to, the following:

#### **6.5.3 Equipment Inspections:**

**6.5.3.1 Tow Vehicles**—All tow vehicles shall be thoroughly inspected prior to seasonal operations and on a daily basis thereafter on operational days. A checklist of this inspection is required with items that are appropriate to the particular venue. Specific items that shall be inspected include, but are not limited to: Fluid levels, tire pressure, tire wear, lug nuts, brakes, bearings, and towing apparatus. (See **Table X1.1** and **Table X1.2**.)

**6.5.3.2 Wagons/Trailers**—All wagons/trailers shall be thoroughly inspected prior to seasonal operations and on a daily basis thereafter on operational days. A checklist is required with items that are pertinent to the particular venue. Specific items that shall be inspected include, but are not limited to: tire pressure and capacity, lug nuts and stairs (if applicable). (See **Tables X1.3-X1.8**.)

**6.5.3.3** If secondary mechanical brakes are used on the wagon or trailer, in conjunction with the tow vehicle, they shall be inspected prior to seasonal operations and on a daily basis thereafter on operational days.

**6.5.3.4** Daily inspection reports shall be completed by an individual designated by management for the following: tow vehicle, wagon/trailer and trail/route prior to opening each day.

**6.5.4 Trail Grooming and Inspection**—The trail/route for each attraction shall be inspected prior to the start of the season. Once the season begins, the trail/route for each attraction shall be inspected on a daily basis on operational days and groomed appropriately to eliminate excessive ruts and debris as needed. It is required that a checklist be prepared that incorporates regular inspections and grooming. Specific items for trail grooming and inspection shall include, but are not limited to the following: Identify uneven areas due to erosion, tripping hazards, sink holes and fallen branches. (See **Table X1.13** and **Table X1.14**.)

**6.6 Maintenance of Tow Vehicles and Wagons/Trailers**—All tow vehicles and wagons/trailers shall be maintained on a daily basis on operational days. A checklist is required with items that are appropriate to the particular venue. (See **Tables X1.4-X1.8**.)

### **6.7 Driver Training:**

**6.7.1** The Owner/Operator of the hay ride attraction shall verify and document that drivers receive training in accordance with Practice **F770-18** and this standard practice.

**6.7.2** All drivers of a tow vehicle shall be properly trained in the operation of that tow vehicle. The appropriate training shall be determined by each venue based upon the circumstances of that venue. If a venue operates when it is dark, additional