

**Designation:** F 2126 - 01

An American National Standard

# Standard Test Method for Treestand Static Load Capacity<sup>1</sup>

This standard is issued under the fixed designation F 2126; 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.

#### 1. Scope

- 1.1 This test method covers the determination of the static load capacity of treestands in terms of a factor of safety relative to the manufacturer's rated capacity.
- 1.2 The values stated are in inch-pound units and are to be regarded as the standard.
- 1.3 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. Terminology

- 2.1 The terminology and definitions in the referenced documents are applicable to this test method.
  - 2.2 Definitions:
- 2.2.1 *backbar or V-bar*—the adjustable component of a climbing treestand or handclimber that engages the tree to provide support. The backbar may be rigid or flexible.
- 2.2.2 *climbing stick*—a device used to assist climbing a tree primarily to a fixed position treestand. A structure that is secured to the tree and allows the user to support his weight and climb to the desired height on the tree.
- 2.2.3 *climbing treestand*—a treestand that provides both the means to ascend the tree, and allow the user to remain at a desired elevation.
- 2.2.4 handclimber, or climbing aid—a device to assist climbing with a climbing treestand. A structure that allows the user to support his weight when lifting a climbing treestand with his legs.
- 2.2.5 ladder treestand—a treestand that is secured to the tree at the elevation where the platform is located. (The ladder treestand may be secured to the tree at other locations and has steps that are used to reach the platform or hunting position.)
- 2.2.6 non-climbing, fixed position or hang-on treestand—a treestand that is secured to the tree at the elevation where it is used. (The user usually ascends the tree by some means and then lifts the treestand to the desired position and secures it for use.)
- <sup>1</sup> This test method is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.16 on Archery Products.
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- 2.2.7 *platform*—the horizontal structural area of a treestand on which the user stands and/or places his feet.
- 2.2.8 *treestand*—a device designed to be affixed to a tree or its branches so as to permit an individual to sit or stand thereon for the purpose of attaining an elevated position from which to observe, photograph or hunt.
- 2.2.9 *tripod or tower treestand*—a tripod or tower treestand is constructed to be self-supporting and is not required to be secured to a tree.

#### 3. Summary of Test Method

3.1 A climbing treestand is mounted so that its platform is perpendicular or slightly above horizontal to a rigid wood or metal pole when the rated load is applied parallel to the mounting pole. A fixed position or ladder treestand shall be mounted with the platform perpendicular to the mounting pole. A tripod stand shall be positioned so that the platform is perpendicular to the application of the load. A climbing stick shall be mounted such that the steps are perpendicular to the pole. The platform is equipped with deflection measurement devices. The load is applied step-wise and recordings are made of the load and deflection at each step until yielding or permanent deflection occurs or until twice the rated load is applied. The steps to ladder, tripod and climbing sticks do not require deflection measurements be taken.

## 4. Significance and Use

4.1 This test method is intended for quality assurance and production control purposes.

#### 5. Apparatus

- 5.1 A rigid round wood or metal pole, preferably vertical, is used to mount the subject product such that pole deflection is minimized.
- 5.1.1 The mounting pole diameter shall be 10 in. (254 mm),  $\pm$  1 in. (25.4 mm).
- 5.2 The load shall be applied using either calibrated weights or a mechanical device in conjunction with a calibrated load cell.
- 5.2.1 The use of calibrated weights requires that weight placement be accurate to assure that the load application centroid is coincident with the boundaries defined and meets the requirements as given in 5.4. Caution should be exercised