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An American National Standard

Standard Practice for Testing Treestand Ladder, Tripod Stand and Climbing Stick Load Capacity[1]

This standard is issued under the fixed designation F2124; 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 provides guidance for testing the load capacity of ladder and tripod type treestands. This practice also applies to climbing sticks which shall meet the same requirements as the steps to ladder and tripod type stands. For changes to this specification since the last issue, refer to the Summary of Changes section at the end of the standard.

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. Referenced Documents

2.1 *ASTM Standards:*[2]

F2125 Test Method for Treestand Static Stability and Adherence

F2126 Test Method for Treestand Static Load Capacity

F2128 Test Method for Treestand Repetitive Loading Capability

F2531 Test Method for Load Capacity of Treestand Seats

3. Terminology

3.1 The terminology and definitions in the referenced documents are applicable to this practice.

3.2 *Definitions:*

3.2.1 *climbing stick*—a device to assist climbing a tree particularly to a fixed position treestand. A structure that is secured to the tree and allows the user to support his weight and climb to a desired height on the tree.

3.2.2 *ladder treestand*—a treestand that is secured to the tree at an 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.)

3.2.3 *platform*—the horizontal structural area of a treestand on which the user stands, sits and/or places their feet.

3.2.4 *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.

3.2.5 *tripod or tower stand*—a tripod or tower stand is constructed to be self-supporting and is not required to be secured to a tree.

4. Summary of Practice

4.1 This practice provides guidelines for the selection of tests for the evaluation of the load capacity of ladder treestands, tripod type treestands and climbing sticks in accordance with manufacturer's capacity rating, particularly for quality assurance and adequacy of safety factors including:

4.1.1 Static load test.

4.1.2 Stability test.

4.1.3 Repetitive loading test.

NOTE 1—Steps only.

4.1.4 In the event of a repetitive load failure, manufacturer is to submit two additional stands for testing for final acceptance.

5. Significance and Use

5.1 This practice is provided to develop and maintain uniformity for the evaluation of the load capacity of ladder and tripod type stands and climbing sticks, particularly with regard to quality assurance and safety factors.

5.2 It is emphasized that the use of these procedures will not alter the validity of data determined with specific test methods, but provides guidance in the interpretation of test results (valid or invalid) and guidance in the selection of a reasonable test procedure in those instances where no standard exists today.

6. Procedure

6.1 The following methods are recommended for individual units and situations:

[1] This practice is under the jurisdiction of ASTM Committee F08 on Sports Equipment, Playing Surfaces, and Facilities and is the direct responsibility of Subcommittee F08.18 on Treestands.

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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.

6.1.1 An individual test unit of the specified model shall be selected at random.

6.1.2 The test units shall first be visually inspected for any flaws and defects, missing parts, etc., and any discrepancies are noted. The test unit shall also be checked, and so noted, to assure that instructions are included with the unit.

6.1.3 A test shall be performed to determine the static load capacity of the platform, steps, and seat (when present). Tests shall be performed on the platform, seat section (when present) and 25 % or a minimum of one of the steps in accordance with Test Method F2126. Deflection measurements shall not be performed on the steps.

6.1.4 A stability test on the platform shall be performed in general accordance with Test Method F2125.

6.1.5 A repetitive loading test shall be performed on at least one of the stand's steps with the test subject assembled and in place against the test pole in accordance with Test Method F2128. The steps shall be selected at a location approximately two-thirds of the total assembled vertical height. The total number of load cycles shall be the number of steps multiplied by 500 (based on the usage of cycle up and down with each use, 25 days per year for 10 years).

6.1.6 This section applies to test subjects that are designed to be used by two people at the same time, and thus have higher rated loads to include the weight of two people. Static testing at twice the rated load and stability testing at one times the rated load shall be performed on the platform section, in accordance with Test Methods F2126 and F2125 respectfully. However, static and repetitive testing at one (1) times the rated load of the harness furnished or the stated maximum single user weight rating (tripods only) shall be performed on the step according to Test Methods F2126 and F2128 since only one (1) person can stand on the ladder step at a time. Static testing of seats shall follow the loading apparatus and procedure as given in Test Method F2531 but loads for 2 person bench seats shall be 1 ½ times the rated load and the load for individual 2 person tripod seats shall be at 1 ½ times the maximum single user weight rating.

7. Failure Criterion

7.1 During all testing yielding permanent deformation, cracks or other structural defects shall be cause for failure. Visual inspection shall be the main inspection method; however, other non-destructive test methods may be used to determine if yielding has occurred.

8. Keywords

8.1 climbing stick; platform; tower; treestand; tripod

APPENDIX

(Nonmandatory Information)

X1. Additional Information

X1.1 This standard is provided for use by manufacturers of treestands and testing companies. Criteria has been developed for certification of treestands and this standard is an integral part of the certification. However, a treestand conforming to this standard alone does not constitute certification and those manufacturers desiring certification must meet all applicable standards as a minimum requirement.