

TMS 03-98

Standard Practice for Treestand Safety Devices

1. Scope

- 1.1 This practice provides guidance for providing user safety devices on treestands. For changes to this practice since the last issue, refer to the Summary of Changes section at the end of the standard.
- 1.2 The values stated are in English units.
- 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:*
- 2.2 *Federal Standards:*
- 2.3 *Manufacturing Standards:* Treestand Manufacturing Standards TMS 02, 04, and 06.

3. Terminology

- 3.1 The terminology and definitions in the referenced documents are applicable to this practice.
- 3.2 *Definitions:*
 - 3.2.1 *Non-climbing, fixed position or hang-on treestand*—a treestand which 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.)
 - 3.2.2 *Climbing treestand*—a treestand which provides both the means to ascend the tree, and allow the user to remain at a desired elevation.
 - 3.2.3 *Hand climber, 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.
 - 3.2.4 *Backbar*— the adjustable component of a climbing treestand or handclimber, which engages the tree to provide support.
 - 3.2.5 *Ladder treestand*— a treestand which is secured to the tree at the elevation where the platform is located. (The ladder treestand can be secured to the tree at other locations and has steps that are used to reach the platform or hunting position).
 - 3.2.6 *Tripod or Tower stand*— a tripod or tower stand (free standing platform) is constructed to be self-supporting and is not required to be secured to a tree.
 - 3.2.7 *A Climbing Stick*— a device 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.
 - 3.2.8 *Platform*—the horizontal structural area of a treestand on which the user stands and/or places his feet.
 - 3.2.9 *Integral seat*—a treestand seat which is attached to the base (where the user stands) platform.
 - 3.2.10 *Fall Arrest System (FAS)*: a system, which is assembled for the purpose of arresting an accidental fall of its user. FAS consist of a Full Body Harness, lanyard, anchorage means, and connecting hardware.
 - 3.2.11 *Suspension Relief Device*— a device to allow relief of a person's weight on the lower extremities if suspended in a harness. The device is to maintain circulation in the legs and prevent suspension trauma (blood pooling)

- 3.2.12 *Full Body Harness (FBH)*: A component with a design of straps which is fastened about the person in a manner so as to contain the torso and distribute the fall arrest forces over at least the upper thighs, pelvis, chest and shoulders with means for attaching it to other components or subsystems.
- 3.2.13 *Two person treestand*: a ladder or hang-on treestand designed and marketed for use by two persons simultaneously.

4. Summary of Practice

- 4.1 This practice provides guidelines for the selection, availability and placement of user safety devices on treestands particularly for quality assurance and adequacy of auxiliary safety including:
 - 4.1.1 Use of instructions in anticipation of user error or misuse.
 - 4.1.2 Availability of instructions in case of their loss.
 - 4.1.3 User Fall Arrest System that meets TMS 06-02 standards
 - 4.1.4 Inter-connects (two piece units).
 - 4.1.5 Auxiliary security.
 - 4.1.6 Securing and pivot stabilizing means for ladder treestands.

5. Significance and Use

- 5.1 This practice is provided to develop and maintain uniformity in practices for availability, use, and selection of safety devices on treestands and climbing sticks, particularly with regard to quality assurance and safety.
- 5.2 It is emphasized that the use of these practices will not alter the validity of data determined with specific tests, but provides guidance in the interpretation of test results (valid or invalid) and guidance in the selection of a reasonable general provision in those instances where no standard exists today.

6. Procedures

- 6.1 It is recommended that manufacturers follow the methods of safety provisions so described herein. When unusual or special conditions require auxiliary safety devices, means or methods not covered herein, the manufacturer shall be responsible for their development to assure adequate availability for the user.
- 6.2 *Selection of Safety Devices*
 - 6.2.1 User instructions shall be supplied with each individual unit and shall be in accordance with the Standard Practice as given in TMS 04.
 - 6.2.1.1 Instructions shall contain detailed information on the proper set up, use and safety precautions for the unit.
 - 6.2.2 Labels and warnings shall be placed on the unit in accordance with the Standard Practice as given in TMS 02.
 - 6.2.2.1 Notice of availability of instructions will be identified on the unit as a part of required label information as given in 6.2.2.
 - 6.2.3 A Fall Arrest System, that meets TMS 06-02 standards, shall be provided with each treestand or ladder stand as standard equipment. The FAS rated capacity shall not be less than the rated capacity of the treestand except for a 2 person treestand (Ref. 6.2.3.3). Instructions on the proper use, warnings and securing the harness to the tree shall be provided either separately or as part of the treestand instructions.
 - 6.2.3.1 The Fall Arrest System shall have provision to be secured to the tree which the user climbs. It shall be so constructed that the user is able to adjust and minimize the free-fall length.
 - 6.2.3.2 In the case of climbing and hang-on treestands, the features of the Fall Arrest System shall include allowing the user to have it secured to the tree while in the process of climbing the tree.

- 6.2.3.3 For 2 person treestands, there shall be a Fall Arrest System provided for each person, i.e., 2 FAS. The FAS rated capacity shall be a minimum of 300 pounds. 6.2.4 Two-piece climbing treestands (those without integral seats) specifically, those involving a 'stand-up/sit-down' mode of ascending or descending a tree, shall include a flexible inter-connecting device to secure the upper and lower pieces together and prevent them from separating.
- 6.2.4.1 A cable, rope, strap or other similar interconnecting means, shall be configured such that it will not encumber the user while climbing while prohibiting the lower part from falling if the lower part were to become disengaged from the user.
- 6.2.4.2 The use of a device to secure the upper piece (seat) whenever the user removes the load (standing) is highly recommended. An elastic cord, rope, strap, etc. should be an integral component of the upper piece and its use explained in the unit instructions.
- 6.3 Auxiliary safety devices shall be provided where additional safety precautions can be made to further protect the user. Examples include: anti-slip platform surfaces, backbar locking devices or tie-offs (for climbing treestands, use of handclimbers for locking means, balance bars, etc).
- 6.3.1 For special cases or non-typical units, specific safety devices shall be provided where applicable.
- 6.4 Ladder treestands shall include means to stabilize the ladder from pivoting about the ladder axis and secure it to the tree prior to use. Crisscrossing rope, straps, or other methods to secure the ladder treestand to the tree to prevent pivoting prior to climbing is an example of such means. Instructions shall include proper installation and use.
- 6.5 Ladder treestands and tripod stands shall include means to secure all vertical platform support sections together such that inadvertent separation of sections during use cannot occur. The use of pins, bolts, clips, etc. through each joint (or other coupling device) to prevent sections/columns from separating if subjected to tension loads are an example of such means.
- 6.6 A suspension relief device shall be provided complete with instructions. The device shall be capable of allowing the user to relieve the load on the user's lower extremities if suspended in a harness to maintain circulation in the legs and prevent suspension trauma (blood pooling). The capacity rating of the suspension relief device shall equal the FAS rated capacity.

7. Keywords

- 7.1 treestands; platform; climbing stick; tripod

SUMMARY OF CHANGES

This section identifies the location of principle changes to this standard that have been incorporated since its last issue. Changes or additions are underlined on the section reference number.

Revision B – Sections 3.2.5, 3.2.6 and 3.2.7 added.

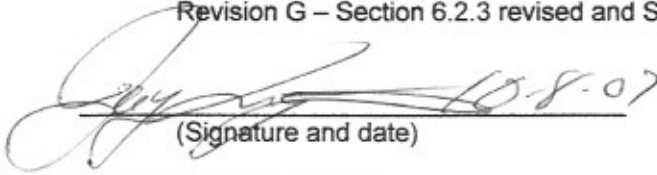
Revision C - Sections 2.3, 3.2.5, 4.1.3, 7.3, 7.3.1, and 7.3.2 revised. Sections 3.2.10 and 3.2.11 added.

Revision D – Sections 4.1.6, 6.4, 7, 7.1, and 3.2.12 added. Sections 6 & 7 renumbered. Section 6 renamed. Section 6.2.3.2 revised.


Revision E - Section 6.2.3 revised.

Revision F – Section 6.5 added.

Revision G – Section 6.2.3 revised and Section 3.2.11, 6.6 added.


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