Designation: F2822 – 10 (Reapproved 2024)

Standard Specification for Fixed Anchorages Installed on Structures Used for Rope Rescue Training[1]

This standard is issued under the fixed designation F2822; 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 standard specifies the minimum strength requirements for anchorages permanently installed or attached to training towers or other structures used for rope rescue training. It does not describe how those anchorages are constructed, installed in, or attached to the structure, nor does it include any factors of safety. It only specifies the design loads that must be considered.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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:*[2]

F2266 Specification for Masses Used in Testing Rescue Systems and Components

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *anchorage, n*—a permanently attached point on the structure that is used as an attachment for rope or hardware. Also referred to as an *anchor*.

3.1.2 *failure, n*—the point at which some part of the anchor physically distorts or begins to detach from its mounting point on the structure.

3.1.3 *proof load, n*—a predetermined test load, greater than the service load, to which a specimen is subjected before acceptance for use. In this standard, the proof load is twice the maximum anticipated load on an anchor.

4. Performance Requirements

4.1 Each anchorage shall be designed to hold a minimum of 40 kN in all directions of potential loading.

5. Other Requirements

5.1 The anchorage shall be manufactured in such a way that a carabiner with a gate opening of 25 mm or greater shall fit around it and the gate shall be able to close and lock.

5.2 The anchorage shall be constructed using rounded stock or with beveled or chamfered edges to minimize damage to hardware, rope, or webbing that is attached to the anchorage.

TEST METHODS

6. Scope

6.1 This test method provides basic testing procedures for product acceptance. It is a nondestructive “proof load” test and therefore is not a test of ultimate load-carrying capacity of the anchor.

7. Significance and Use

7.1 This test verifies that a carabiner can be attached to the anchorage and that the anchorage will hold a minimum of twice the anticipated load.

8. Hazards

8.1 The anchorage, attaching carabiners, or rope could fail and eject parts. The test load or testing machine could fall. Use a safety screen, protective eyewear, do not increase the test load any greater than necessary, and do not perform this test alone.

9. Procedure

9.1 Attach the testing device to the anchorage using a carabiner that has a gate opening of 25 mm or greater and a strength of at least 40 kN.

[1] This specification is under the jurisdiction of ASTM Committee F32 on Search and Rescue and is the direct responsibility of Subcommittee F32.01 on Equipment, Testing, and Maintenance.

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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.