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AMERICAN NATIONAL STANDARD

ANSI/ASSE Z359.13-2009 Personal Energy Absorbers and Energy Absorbing Lanyards

Part of the Fall Protection Code

VERSION **2**



AMERICAN SOCIETY OF
SAFETY ENGINEERS



American National Standard

**Personal Energy Absorbers
and Energy Absorbing Lanyards**

Secretariat

American Society of Safety Engineers
1800 East Oakton Street
Des Plaines, Illinois 60018-2187

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American National Standard

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Foreword (This Foreword is not a part of American National Standard Z359.13-2009.)

This standard, national in scope, was developed by an Accredited Standards Committee functioning under the procedures of the American National Standards Institute, with the American Society of Safety Engineers (ASSE) as secretariat.

It is intended that every employer whose operations fall within the scope and purpose of the standard will adopt the guidelines and requirements detailed in this standard.

The need for this standards activity grew out of the continuing development of a series of fall protection related standards. The focus is to tie the elements of those standards together and provide the tools with which employers may develop the programs that incorporate those elements. This standard also brings together the administrative requirements of those fall protection standards. It should be noted, as in all Z359-series standards, that this standard applies to all occupational and non-occupational activities except those in SIC Division C (construction). It also is not intended to apply to sports activities such as mountaineering.

Neither the standards committee, nor the secretariat, states that this standard is perfect or in its ultimate form. It is recognized that new developments are to be expected, and that revisions of the standard will be necessary as the state-of-the-art progresses and further experience is gained. It is felt, however, that uniform guidelines for fall protection programs are very much needed and that the standard in its present form provides for the minimum criteria necessary to develop and implement a comprehensive managed fall protection program.

The Z359 Committee acknowledges the critical role of design in influencing the use of proper fall protection equipment. Designs which eliminate fall hazards through the proper application of the hierarchy of safety controls are the preferred method for fall protection. Design deficiencies often increase the risk for employees who may be exposed to fall hazards: examples are (1) lack of rail systems to prevent falls from machines, equipment and structures; (2) failure to provide engineered anchorages where use of personal fall arrest systems are anticipated; (3) no provision for safe access to elevated work areas; (4) installation of machines or equipment at heights, rather than floor/ground level to preclude access to elevated areas; (5) failure to plan for the use of travel restriction or work positioning devices. To that end, this series of standards also provides guidance for design considerations for new buildings and facilities.

Basic fall safety principles have been incorporated into these standards, including hazard survey, hazard elimination and control, and education and training. The primary intent is to ensure a proactive approach to fall protection. However, the reactive process of accident investigation is also addressed to ensure that adequate attention is given to causation of falls.

The Z359 Committee solicits public input that may suggest the need for revisions to this standard. Such input should be sent to the Secretariat, ASC Z359, American Society of Safety Engineers, 1800 E. Oakton Street, Des Plaines, IL 60018-2187.

This standard was developed and approved for submittal to ANSI by the American National Standards Committee on Standards for Fall Protection, Z359. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z359 Committee had the following members:

Randall Wingfield, Chairman
Basil Tominna, P.E., Vice Chairman
Timothy R. Fisher, CSP, CHMM, ARM, CPEA, Secretary
Jennie Dalesandro, Administrative Technical Support

Organization Represented

Name of Representative

American Society of Safety Engineers	Daniel Paine Carl Griffith, CSHM, CPSM, CHCM, CUSA, CPEA
Bashlin Industries, Inc.	Bradley S. McGill Roderick A. Paul
Boeing Company	Chuck Orebaugh Joey R. Junio
Buckingham Mfg. Co., Inc.	Jim Rullo Chris Delavera
Capital Safety Group	J. Thomas Wolner, P.E. Brad Rohlf
Chevron	Craig Berkenmeier Joe Burke
Chrysler LLC Elk River, Inc.	James W. Lane, CSP, P.E. Mark C. Conover Paul Doepel
Ellis Fall Safety Solutions	Dr. J. Nigel Ellis, P.E., CSP, CPE John T. Whitty, P.E.
Flexible Lifeline Systems	Hugh Armstrong David Lee
Gravitec Systems, Inc.	Randall Wingfield Dave Lough
Hartford Steam Boiler Inspection & Insurance Co.	Timothy Healey Jerome Kucharski, CFPS
Heritage Group Safety	Jack Lamberson Bruce Guilliani
Hy-Safe Technology	Frank Anzaldi Ron Larkin
ISEA – International Safety Equipment Association	Russell Goldmann, II Janice C. Bradley, CSP
Indianapolis Power and Light LJB Inc.	David H. Pate, CUSA Thomas Kramer, P.E., CSP Rupert Noton, CEng, MStructE
Latchways PLC	Paul Illick
Lawrence Livermore National Security	Lynn Camp
Liberty Mutual Group	John Rabovsky, MS, CSP, ARM Peter Furst

Lighthouse Safety LLC
MSA

Monsanto

Murdock Webbing Co. Inc.

National Association of Tower Erectors

Pamela R. Huck, Inc.
Peakworks

PenSafe
Reliance Industries, LLC

SPRAT – Society of Professional Rope
Access Technicians
Safety Connection

Safety Equipment Institute
Safety Through Engineering, Inc.

Scaffold Industry Association

SPANCO, Inc.

Sperian Protection

Sturges Manufacturing Co., Inc.

Tractel Inc.

Travelers
Tritech Fall Protection

United Auto Workers

U.S. Air Force Safety Center

U.S. Bureau of Reclamation

John Corriveau
Joseph Feldstein
Robert Apel
Robert Kling, P.E., CSP
Chad M. McDanel
Bob Golz
Greg Pilgrim
Gordon Lyman
Don Doty
Pamela Huck, CSP
Tim Accursi
Gabe Fusco
Keith Smith
W. Joe Shaw
Gary Choate
Loui McCurley
Jim Frank
Clint Honeycutt, Sr.
Chad Bourgeois
Steve Sanders
Mike C. Wright, P.E., CPE, CSP
Jeremy T. Deason, P.E.
Scott Billish
Daniel Zarletti
Arnie Galpin, P.E.
George Nolan
Preston Anderson
Chuck Ziegler
Richard Griffith
Tyler Griffith
Doug Knapp
Cliff Theve
Scott H. Richert, CSP, ARM, ALCM
John Seto
Craig Siciliani
Tom Kinman
John Rupp, Jr.
Thomas Pazell
Arvie E. Scott
Steven C. Beason
Victor Feuerstein, CIH

U.S. Department of Labor – OSHA

U.S. Department of the Navy

Western Area Power Administration

Sherman Williamson

John Newquist

Basil Tominna, P.E.

Douglas L. Craddock

Jeff Wild

Ralph Armstrong

Subgroup Z359.13 had the following members:

Randall Wingfield (Chair)

Preston Anderson

Lynn Camp

Mark C. Conover

Jeremy T. Deason, P.E.

Bob Golz

Richard Griffith

Tom Kinman

Thomas Kramer, P.E. CSP

Chad M. McDanel

Bradley S. McGill

Scott H. Richart, CSP, ARM, ALCM

W. Joe Shaw

The Subgroup would like to thank the following people for their assistance in developing this standard:

Richard Griffith - Sturges Manufacturing Co., Inc.

Anthony Dellerba - Sturges Manufacturing Co., Inc.

John Fletcher - Sturges Manufacturing Co., Inc.

Glen Keesler - Sturges Manufacturing Co., Inc.

Kevin Denis - Gravitec Systems, Inc.

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STANDARD REQUIREMENTS

1. SCOPE, PURPOSE, APPLICATIONS, EXCEPTIONS AND INTERPRETATIONS

1.1 Scope.

1.1.1 This standard establishes requirements for the performance, design, marking, qualification, instructions, inspection, maintenance and removal from service of energy absorbing lanyards and personal energy absorbers for users within the capacity range of 130 to 310 pounds (59 - 140 kg.).

1.1.2 This standard is for use by organizations where employees are exposed to fall hazards.

1.2 Purpose and Applications.

1.2.2 Before any equipment shall bear the marking Z359.13 (personal energy absorbers and energy absorbing lanyards) or be represented in any way as being in compliance with this standard, all requirements of this standard shall be met.

1.3 Exceptions. The requirements of this standard do not address the construction industry (SIC Division C), window cleaning belts and sports related activities.

1.4 Interpretations. Requests for interpretations of this standard shall be in writing and addressed to the Secretariat of this standard.

2. DEFINITIONS

Definitions relating to personal energy absorbers and energy absorbing lanyards can be found in ANSI/ASSE Z359.0, *Definitions and Nomenclature Used for Fall Protection and Fall Arrest*.

3. REQUIREMENTS

3.1 Personal Energy Absorber Component. All personal energy absorbers bearing this standard number shall meet the design and testing requirements of this standard. See Figures 5.a, 5.b.

EXPLANATORY INFORMATION

(Not part of American National Standard Z359.13)

E1.1.1 *It is the intention of this standard to require all energy absorbing lanyards and personal energy absorbers to reduce the forces implied on the user to less than 10 G's (10 times the normal gravitational pull of the Earth). Users below 130 pounds may experience forces higher than 10 G's.*

E1.2.2 *This is a voluntary consensus standard. The legal requirements for protection against falls from heights are established by applicable regulatory bodies governing occupational safety.*

E3.1 *Energy absorbers for horizontal lifelines are not addressed here because horizontal lifelines are outside the scope of this standard.*