for

Vehicle-Mounted Bridge Inspection and Maintenance Devices
Date of Publication: May 14, 2007

This Standard was approved by ANSI on December 12, 2006.

The design, manufacturing, and remanufacturing requirements of this standard apply to all Vehicle-Mounted Bridge Inspection and Maintenance Devices manufactured or remanufactured or after the effective date. All other provisions of this standard apply to both new and existing units delivered by sale, lease, rental or for any form of beneficial use on or after the effective date.

The effective date is established by the standards developer and not by the American National Standards Institute.

This standard was developed under procedures accredited as meeting the criteria for American National Standards. The Consensus Committee that approved the standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed standard was made available for public review and comment which provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

The Scaffold Industry Association, Inc. (SIA) does not “approve,” “rate,” or “endorse” any item, construction, proprietary device or activity.

The Scaffold Industry Association, Inc. (SIA) does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to ensure anyone utilizing a standard against liability for infringement of any applicable Letters Patent, nor assume any such liability. Users of this standard are expressly advised that the determination of the validity of any such patent rights, and the risk of the infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated within the industry is not to be interpreted as government or industry endorsement of this standard.

The Scaffold Industry Association, Inc. (SIA) accepts responsibility for only those interpretations issued in accordance with governing ANSI Essential Requirements which preclude the issuance of interpretations by individual volunteers.
ANSI/SIA
A92.8-2006

Revision of
ANSI A92.8-1993

AMERICAN NATIONAL STANDARD
for VEHICLE-MOUNTED
BRIDGE INSPECTION AND
MAINTENANCE DEVICES

Secretariat
Scaffold Industry Association, Inc.

Approved December 12, 2006
American National Standards Institute, Inc.
American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of approval. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Published by
Scaffold Industry Association, Inc. (SIA)
2001 East Campbell Avenue, Suite 101, Phoenix, AZ  85016
www.scaffold.org

Copyright ©2006 by Scaffold Industry Association, Inc.
All rights reserved.

No part of this publication may be reproduced in any form,
in an electronic retrieval system or otherwise, without
the prior written permission of the publisher.

Printed in the United States of America
Foreword

This Foreword is not part of American National Standard for Vehicle-Mounted Bridge Inspection and Maintenance Devices, ANSI/SIA A92.8-2006.

This standard is one of a series on aerial platforms developed under the committee procedures of the American National Standards Institute. The A92 standards committee was organized by the Institute in 1948. The Scaffold Industry Association, Inc. serves as Secretariat.

The primary objective of this standard is to prevent accidents associated with the use of Vehicle-Mounted Bridge Inspection and Maintenance Devices by establishing requirements for design, manufacture, installation, maintenance, performance, use and training.

This revision to ANSI/SIA A92.8 separately addresses each entity to clearly define responsibilities. Care was taken to provide consistency between this and other A92 standards. Definitions have been expanded to clarify interpretation.

Interpretations and Suggestions for Improvement

All inquiries requesting interpretation of the Committee’s approved American National Standards must be in writing and directed to the Secretariat. The A92 Committee shall approve the interpretation before submission to the inquirer. No one but the A92 Committee is authorized to provide any interpretation of this standard.

The A92 Committee solicits comments on and criticism of the requirements of the standards. The standards will be revised from time to time where necessary or desirable, as demonstrated by the experience gained from the application of the standards. Proposals for improvement of this standard will be welcome. Proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed rationale for the proposal including any pertinent documentation.

All requests for interpretation and all suggestions for improvement shall be forwarded in writing to the ASC A92 Committee, c/o Secretariat ~ Scaffold Industry Association, 2001 East Campbell Avenue, Ste 101, Phoenix, AZ, 85016.

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee Aerial Platforms, A92. The ASC A92 committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time the ASC A92 committee approved this standard, the A92 Aerial Platforms Committee had the following members:

David Merrifield, Chairman
Lincoln L. Schoenberger, Vice-Chairman

<table>
<thead>
<tr>
<th>Organization Represented</th>
<th>Name of Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alimak Hek, Inc.</td>
<td>Gregory E. Janda</td>
</tr>
<tr>
<td>Altec Hi Line</td>
<td>Eric Lumberg</td>
</tr>
<tr>
<td>Altec Industries</td>
<td>Matthew Trefz</td>
</tr>
<tr>
<td>Altec Industries</td>
<td>Bryan D. Player</td>
</tr>
<tr>
<td>Arrowhead Product</td>
<td>Richard Stollery</td>
</tr>
<tr>
<td>Arrowhead Product</td>
<td>Gary Werkhoven</td>
</tr>
<tr>
<td>Development, Inc.</td>
<td>Dan Moss</td>
</tr>
<tr>
<td>Association of Equipment</td>
<td>John J. Brewington</td>
</tr>
<tr>
<td>Manufacturers</td>
<td>Michael C. Stites</td>
</tr>
<tr>
<td>Association of Equipment</td>
<td>John W. Cook, Jr.</td>
</tr>
<tr>
<td>Manufacturers</td>
<td>Ronald Upchurch</td>
</tr>
<tr>
<td>Brewington &amp; Company</td>
<td>Gene Toole</td>
</tr>
<tr>
<td>Carolina Power &amp; Light</td>
<td>Leland S. Bisbee</td>
</tr>
<tr>
<td>Carolina Power &amp; Light</td>
<td>Joe Vanderlugt</td>
</tr>
<tr>
<td>Construction Co.</td>
<td></td>
</tr>
<tr>
<td>Edison Electric Institute</td>
<td></td>
</tr>
<tr>
<td>Diversified Inspections</td>
<td></td>
</tr>
<tr>
<td>ITL</td>
<td></td>
</tr>
</tbody>
</table>
Subcommittee A92.8 Vehicle-Mounted Bridge Inspection and Maintenance Devices, which developed this standard, had the following members:

H.B. “Bud” Hayden Jr., Chairman
John E. Ambramowski
Francis L. Bonesteel
Patrick Clark
Bruce R. Flint
Daniel McClain
Richard Stolley
Glenn A. Williams

Donald Reichert
Dennis Eckstine
Charles “Mark” Recard
Barris Evulich
Mike Paulson
Robert Sterba
Ronald Bonner
Francois Villeneuve
Tim Riley
Rick Curtin
Ronald W. Barnhart
C. Denton Elliott
Joshua Chard
H.B. “Bud” Hayden, Jr.
Vincent DeQuoy
Christian Corriveau
Lewis M. Whisonant
Gary A. Mccarriere
Stephen Forgas
Todd Miorin
Ernest A. Jones
William P. Fulton
John J. Mlaker
James Jensen
Eric A. Schmidt
David E. White
Nathan Woodsmith
Francis L. Bonesteel
Lincoln F. Schoenberger
Paul Young
Mark A. Miller
Zach Blackburn
Tracy Kurt Schroeder
F.J. Wooldridge
Ben Fort
Ray A. Ybarra
Derral Crane
David Merrifield
David L. Sexton
Brad Boehler
Richard Hoffelmeyer
Harlan H. Henke
Douglas Bailey
Richard Harper
Byron Adkins
Elroy D. Severson
Fred H. von Herrmann
James Christian
Ken Krause
Garvin Branch
Paul Guthorn
Bob Simon
Louis Haak
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction</td>
<td>13</td>
</tr>
<tr>
<td>2 Scope, Purpose and Requirements</td>
<td>13</td>
</tr>
<tr>
<td>2.1 Scope</td>
<td>13</td>
</tr>
<tr>
<td>2.1.1 Equipment covered</td>
<td>13</td>
</tr>
<tr>
<td>2.1.2 Equipment not covered</td>
<td>13</td>
</tr>
<tr>
<td>2.2 Purpose</td>
<td>13</td>
</tr>
<tr>
<td>2.2.1 Effective Dates</td>
<td>13</td>
</tr>
<tr>
<td>2.3 Requirements</td>
<td>14</td>
</tr>
<tr>
<td>3 Referenced and related American National Standards and Scaffold Industry Association Publications</td>
<td>14</td>
</tr>
<tr>
<td>3.1 Referenced American National Standards</td>
<td>14</td>
</tr>
<tr>
<td>3.2 Other referenced Standards and Regulations</td>
<td>14</td>
</tr>
<tr>
<td>3.3 Related American National Standards</td>
<td>14</td>
</tr>
<tr>
<td>3.4 Referenced Scaffold Industry Association publication(s)</td>
<td>14</td>
</tr>
<tr>
<td>3.5 Related Scaffold Industry Association publication(s)</td>
<td>15</td>
</tr>
<tr>
<td>4 Definitions</td>
<td>15</td>
</tr>
<tr>
<td>5 Responsibilities of Manufacturers (Remanufacturers)</td>
<td>18</td>
</tr>
<tr>
<td>5.1 Basic principles</td>
<td>18</td>
</tr>
<tr>
<td>5.2 Quality control</td>
<td>18</td>
</tr>
<tr>
<td>5.3 Rated workload</td>
<td>18</td>
</tr>
<tr>
<td>5.3.1 Multiple ratings</td>
<td>18</td>
</tr>
<tr>
<td>5.4 Welding standards</td>
<td>18</td>
</tr>
<tr>
<td>5.5 Structural safety factors</td>
<td>18</td>
</tr>
<tr>
<td>5.5.1 Ductile elements</td>
<td>18</td>
</tr>
<tr>
<td>5.5.2 Nonductile elements</td>
<td>19</td>
</tr>
<tr>
<td>5.5.3 Structural safety factor formulas</td>
<td>19</td>
</tr>
<tr>
<td>5.5.4 Component requirements</td>
<td>19</td>
</tr>
<tr>
<td>5.6 Controls</td>
<td>19</td>
</tr>
<tr>
<td>5.6.1 General</td>
<td>19</td>
</tr>
<tr>
<td>5.6.2 Base station controls and communication system</td>
<td>19</td>
</tr>
<tr>
<td>5.6.2.1 Base station Bridge Inspection and Maintenance Device controls</td>
<td>19</td>
</tr>
<tr>
<td>5.6.2.2 Communication system</td>
<td>20</td>
</tr>
<tr>
<td>5.6.3 Platform controls and communication system</td>
<td>20</td>
</tr>
<tr>
<td>5.6.3.1 Platform controls</td>
<td>20</td>
</tr>
<tr>
<td>5.6.3.2 Communication system</td>
<td>20</td>
</tr>
<tr>
<td>5.6.4 Emergency stop controls</td>
<td>20</td>
</tr>
<tr>
<td>5.7 Security</td>
<td>20</td>
</tr>
<tr>
<td>5.8 Auxiliary power system</td>
<td>20</td>
</tr>
<tr>
<td>5.10 Level indicator</td>
<td>20</td>
</tr>
<tr>
<td>5.11 Stability</td>
<td>20</td>
</tr>
<tr>
<td>5.11.1 Stability rating</td>
<td>20</td>
</tr>
<tr>
<td>5.11.2 Effects of stability test</td>
<td>21</td>
</tr>
</tbody>
</table>
5.12 Bursting safety factors ................................................................. 21
5.13 System protection (unintended platform motion) ........................................... 21
5.13.1 Hydraulic/pneumatic/electric actuation .............................................. 21
5.13.2 Threaded components. 21
5.13.3 Hydraulic pressure rise ........................................................................ 21
5.13.4 Wire rope/chain systems ................................................................. 21
5.13.4.1 Safety factor .............................................................................. 21
5.13.4.2 Unintended platform motion ....................................................... 21
5.13.5 Unintended retraction of outriggers or stabilizers ..................................... 21
5.13.6 Electrical systems and devices .......................................................... 21
5.14 Platforms ............................................................................................ 21
5.14.1 Dimensions ....................................................................................... 21
5.14.2 Floor openings .................................................................................. 21
5.14.3 Surface ............................................................................................. 21
5.14.4 Guardrail system ............................................................................. 21
5.14.4.1 Top rail ....................................................................................... 21
5.14.4.2 Mid rail ........................................................................................ 22
5.14.4.3 Structural integrity ..................................................................... 22
5.14.4.4 Toeboards .................................................................................. 22
5.14.4.5 Flexible materials ...................................................................... 22
5.14.4.6 Anchorage(s) for personal fall protection ...................................... 22
5.14.4.7 Access and egress ...................................................................... 22
5.15 Instructions and Markings ....................................................................... 22
5.15.1 Manufacturers’ information ............................................................... 22
5.16 Information to be provided to installer ...................................................... 23
5.16.1 Chassis information ......................................................................... 23
5.16.2 Installation instructions .................................................................... 23
5.17 Manuals and manual storage location ....................................................... 23
5.17.1 Mobile unit manuals ....................................................................... 23
5.17.2 Other manuals ................................................................................ 23
5.17.3 Manual storage location ................................................................... 23
5.18 Training materials ................................................................................ 24
5.19 Safety bulletins ..................................................................................... 24
5.20 Use of accessories/attachments .............................................................. 24
5.21 Modifications ....................................................................................... 24
5.22 Record retention and dissemination ......................................................... 24
5.22.1 Record retention ............................................................................... 24
5.22.1.1 Installation .................................................................................. 24
5.22.1.2 Annual inspection ...................................................................... 24
5.22.1.3 Frequent inspections ................................................................. 24
5.22.2 Record dissemination ....................................................................... 24
5.23 Manufacturer (remanufacturer) as dealer ............................................... 24

6 Responsibilities of Installers ......................................................................... 24
6.1 General responsibilities ........................................................................... 24
6.2 Chassis specifications ............................................................................ 24
6.3 Mobile unit weight distribution ............................................................... 25
6.4 Manuals ................................................................................................ 25
6.5 Installations ............................................................................................ 25
6.6 Quality assurance .................................................................................. 25
6.7 Welding .................................................................................................. 25
8.6 Predelivery preparation ................................................................. 29
8.7 Frequent inspection ................................................................. 29
8.8 Annual inspection ................................................................. 30
8.9 Maintenance safety precautions ............................................... 30
8.10 Replacement parts ............................................................... 31
8.11 Maintenance training .......................................................... 31
8.12 Training .................................................
8.12.1 Operator training ............................................................... 31
8.12.2 Assistance to user ............................................................... 31
8.13 Familiarization upon delivery .................................................. 31
8.14 Owner as user ................................................................. 31
8.15 Assistance to users and operators .............................................. 31
8.16 Record retention and dissemination ........................................... 31
8.16.1 Record retention ............................................................... 31
8.17 Modifications/remounting ..................................................... 32
8.18 Accessories/Attachments ....................................................... 32
8.19 Weight distribution ............................................................. 32
8.20 Safety bulletins ................................................................. 32
8.21 Responsibilities upon sale ...................................................... 32
8.22 Owner as a dealer ............................................................... 33

9 Responsibilities of Users ............................................................ 33
9.1 General ................................................................. 33
9.2 Basic principles ............................................................... 33
9.3 Manuals ................................................................. 33
9.3.1 Machine manuals ............................................................... 33
9.3.2 Manual of Responsibilities ...................................................... 33
9.4 Inspection and maintenance ..................................................... 33
9.4.1 Frequent inspection ............................................................... 33
9.4.2 Annual inspection ............................................................... 33
9.4.3 Pre-start inspection ............................................................. 33
9.4.4 Maintenance safety precautions .............................................. 34
9.5 Replacement parts ............................................................. 34
9.6 Operator training and retraining ............................................... 34
9.7 Familiarization before use ...................................................... 34
9.8 Workplace inspection ............................................................ 34
9.9 During operation ............................................................... 35
9.10 Operator warnings and instructions ........................................... 35
9.10.1 Fall protection ................................................................. 35
9.10.1.1 Platform (bucket/basket) less than fifty (50) sq. ft. .................. 35
9.10.1.2 Platforms of or exceeding fifty (50) sq. ft. ................................... 36
9.10.2 Slope and grade ............................................................... 36
9.10.3 Deployment of stability enhancing means .................................. 36
9.10.4 Guardrails system ............................................................. 36
9.10.5 Distribution of load ............................................................. 36
9.10.6 Electrocution hazard ............................................................. 36
9.10.7 Personal protective equipment (PPE) ...................................... 37
9.10.8 Personnel footing ............................................................... 37
9.10.9 Precaution for other moving equipment .................................... 37
10.9 During operation ................................................................. 42
10.10 Operator warnings and instructions ...................................... 42
10.10.1 Fall protection ............................................................... 42
10.10.1.1 Platforms of or exceeding fifty (50) sq. ft. ......................... 42
10.10.2 Driving on grades ......................................................... 43
10.10.3 Deployment of stability enhancing means ......................... 43
10.10.4 Guardrail system .......................................................... 43
10.10.5 Distribution of load ....................................................... 43
10.10.6 Electrocution hazard ...................................................... 43
10.10.7 Personal protective equipment ........................................ 44
10.10.8 Personnel footing ........................................................ 44
10.10.9 Precaution for other moving equipment ............................ 44
10.10.10 Reporting problems or malfunctions .............................. 44
10.10.11 Reporting potentially hazardous locations ................. 44
10.10.12 Entanglement ............................................................. 44
10.10.13 Capacity limitations .................................................... 44
10.10.14 Work area ............................................................... 44
10.10.15 Fueling ............................................................... 44
10.10.16 Battery charging ...................................................... 44
10.10.17 Improper platform support ........................................... 45
10.10.18 Misuse as a crane ....................................................... 45
10.10.19 Unusual operating support conditions ....................... 45
10.10.20 Movement of chassis with platform(s) deployed ............... 45
10.10.21 Working on scaffolding .............................................. 45
10.10.22 Stunt driving ........................................................... 45
10.10.23 Securing the mobile unit ............................................ 45
10.10.24 Altering safety devices .............................................. 45
10.10.25 Vacating or entering a deployed Vehicle-Mounted Bridge Inspection and Maintenance Device ........................................ 45
10.10.26 Modifications .......................................................... 45
10.10.27 Assistance to the operator ........................................... 45
10.10.28 Carrying materials (larger than the platform.) .................. 45
10.10.29 Crew size and location requirements .......................... 45
10.10.30 Protecting against unauthorized use .......................... 46
10.10.31 Adequate support requirements .................................. 46
10.11 Record of training ......................................................... 46
11 Responsibilities of Lessors .................................................. 46
11.1 Basic principles ............................................................ 46
11.2 Lessor as a dealer ........................................................... 46
11.3 Lessor as an owner .......................................................... 46
11.4 Lessor as a user ............................................................ 46
11.5 Lessor as an operator .......................................................... 46
12 Responsibilities of Lessees .................................................... 46
12.1 Basic principles ............................................................ 46
12.2 Lessee as a dealer ........................................................... 46
12.3 Lessee as an owner .......................................................... 46
12.4 Lessee as a user ............................................................ 46
12.5 Lessee as an operator .......................................................... 46
American National Standard
For Vehicle-Mounted Bridge Inspection and Maintenance Devices

1 Introduction Mobile units covered by this standard are generally designed to be supported on bridge surfaces of varying degrees of grade and super-elevation and have the capability of providing personnel quick and easy access to the underside of such structures. The rapid development of a wide variety of trailer and truck-mounted mobile unit designs necessitates the establishment of standards for their design, manufacture, remanufacture, installation, performance, inspection, training, maintenance, testing and use. Normally, they are not insulated for use near electrically energized apparatus nor are they intended to be used in hazardous locations. Any mobile unit intended for use around energized electrical apparatus shall be designed, manufactured, and used in accordance with the requirements outlined in ANSI/SIA A92.2-2001, Vehicle-Mounted Elevating and Rotating Aerial Devices. The operation of any mobile unit is subject to certain hazards that can be protected against only by the exercise of intelligence, care, and common sense and not by mechanical means. It is essential to have competent, careful personnel trained in the intended use, safe operation, maintenance and service of this type of equipment.

2 Scope, Purpose and Requirements

2.1 Scope

2.1.1 Equipment covered. This Standard applies to mobile units capable of positioning a platform alongside or beneath a bridge deck or equivalent structure while being supported from such structure and are used to position personnel, along with their necessary tools and materials, at work locations. Typical examples of this type of equipment are shown in Figure 1 on page 48.

2.1.2 Equipment not covered. The scope of this standard does not include the following equipment:
- Ladder and ladder stands such as those covered in American National Standards for Ladder and Ladder Stands, ANSI A14 series
- Scaffolding such as those covered in American National Standard for Scaffolding Safety Requirements, ANSI A10.8 –2001
- Vehicle and trailer mounted Elevating and Rotating Mobile units such as those covered in American National Standard for the Vehicle-Mounted Elevating and Rotating Aerial Devices, ANSI/SIA A92.2 –2001
- Non-self-propelled elevating mobile unit such as those covered in American National Standard for Manually Propelled Elevating Aerial Platforms, ANSI/SIA A92.3 –2006
- Self-propelled elevating mobile units such as those covered in American National Standard for Boom-Supported Elevating Work Platforms, ANSI/SIA A92.5 –2006 and Self-Propelled Elevating Work Platforms, ANSI/SIA A92.6 –2006
- Mast climbing work platforms such as those covered in American National Standard for Mast Climbing Work Platforms, ANSI/SIA A92.9 - 1993
- Suspended powered platforms for exterior building maintenance such as those covered in Suspended Power Platforms for Exterior Building Maintenance, ANSI A120.1 –2001
- Vertically adjustable equipment used primarily to raise and lower materials and equipment from one elevation to another as in ANSI A17, B30, and B56 series
- Fire fighting equipment such as covered in Automotive Fire Apparatus ANSI/NFPA 1901- 2003
- Construction and demolition digger derricks such as those covered in American National Standard for Construction and Demolition Safety Requirements, Definitions, and Specifications, ANSI A10.31 –2006
- Mobile and Locomotive Truck Cranes, ANSI/ASME B30.5 - 2004 with Supplements "A" and "B"
- Personnel carrying attachments associated with cranes such as those covered in ANSI/ ASME B30.23- 2005 Personnel Lifting (platforms attached to the crane boom or suspended by hooks).

2.2 Purpose. This Standard applies to the establishment of criteria for design, manufacture, remanufacture, rebuild/recondition, testing, inspection, installation, maintenance, use, training, and operation of Vehicle-Mounted Bridge Inspection and Maintenance Devices, primarily used to position personnel, to achieve the following objectives:
1) Prevention of personal injuries and accidents;
2) Establishment of criteria for design, manufacture, remanufacture, installation, rebuild/recondition,
testing, performance, inspection, training, maintenance, and operation;

(3) Establishment and understanding by designers, manufacturers, remanufacturers, installers, dealers, owners, users, operators, lessees, lessors and brokers of their respective responsibilities.

**2.2.1 Effective Dates.** This Standard will become effective November 14, 2007 as follows:

(1) Design, manufacture and remanufacture requirements. The design and manufacturing requirements of this Standard will apply to all mobile units manufactured on or after the effective date. Bridge Inspection and Maintenance Devices remanufactured on or after the effective date of this Standard shall comply with the requirements of this Standard.

(2) Rebuilt/reconditioned Bridge Inspection and Maintenance Devices shall comply with the standard in effect as of the date of their original manufacture.

(3) Installation Requirements. The installation requirements of this Standard apply to all Bridge Inspection and Maintenance Devices installed on or after the effective date.

(4) Responsibilities for installers, dealers, owners, users, operators, lessors, lessees, and brokers. All provisions detailed for dealers, owners, users, operators, lessors, lessees, and brokers apply to both new and existing units delivered by sale, lease, rental, or any form of beneficial use on or after the effective date.

**2.3 Requirements.** The requirements of this Standard shall be met or exceeded.

**3 Referenced and related American National Standards and Scaffold Industry Association publications**

**3.1 Referenced American National Standards.** This standard is intended to be used in conjunction with the following American National Standards. When these referenced standards are superseded by a revision approved by the American National Standards Institute, the revision shall apply:

- ANSI/SIA A92.2 - 2001, Vehicle-Mounted Elevating and Rotating Aerial Devices
- ANSI Z535.3 - 2002, Criteria for Safety Symbols
- ANSI Z535.4 - 2002, Product Safety Signs and Labels
- ANSI/AWS D1.2 - 2003, Structural Welding Code Aluminum
- ANSI/NFPA 70 - 1995, National Electrical Code
- ANSI/NFPA 505-1996, Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance, and Operation
- ANSI/AWS D1.2 - 2003, Structural Welding Code Aluminum
- ANSI/AWS D1.2 - 2003, Structural Welding Code Aluminum
- ANSI/NFPA 70 - 1995, National Electrical Code
- ANSI/NFPA 505-1996, Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance, and Operation

**3.2 Other referenced Standards and Regulations.** This Standard is also intended to be used in conjunction with the following standards:

- SAE J821 - 1985 for Electrical Systems for Construction, Agriculture and Off-Road Machines
- Code of Federal Regulations (CFR) 1910.333

**3.3 Related American National Standards.** The standards listed here are for information only and are not essential for the completion of the requirements of this Standard. Where these related Standards are superseded by a revision approved by the American Standards Institute, the revision shall apply.

- ANSI A10.4 - 1990, Personnel Hoists
- ANSI A10.8 - 2001, Safety Requirements for Scaffolding
- ANSI A10.31 - 2006, Safety Requirements, Definitions, and Specifications for Digger Derricks
- ANSI/SIA A92.3 - 2006, Manually Propelled Elevating Aerial Platforms
- ANSI/SIA A92.5 - 2006, Boom-Supported Elevating Work Platforms
- ANSI/SIA A92.6 - 2006, Self-Propelled Elevating Work Platforms
- ANSI/SIA A92.9 - 1993, Mast Climbing Work Platforms
- ANSI A120.1 - 1996, Suspended Powered Platforms for Exterior Building Maintenance
- ANSI/NFPA 1901 - 2003, Automotive Fire Apparatus

**3.4 Referenced Scaffold Industry Association publication(s).** The following publication contains the definitions and requirements of this Standard for the entities identified:

3.5 Related Scaffold Industry Association publication(s). The publications listed here are for information only and are not essential for the completion of the requirements of this standard.


4 Definitions

Anchorage(s): A secure point of attachment to be used with personal fall protection equipment (PFPE).

Authorized personnel (authorized person): Personnel approved or assigned to perform a specific type of duty or duties at specific location or locations at a work site.

Base: The relevant contact points of the mobile unit that form the stability fulcrum (e.g. wheels, outriggers, and stabilizers).

Bridge Inspection and Maintenance Device: All components of the mobile unit less the chassis (vehicle). Such components include, but are not limited to, the power plant (if any), positioning assembly, platform, and stabilizers or outriggers (if any).

Broker: An independent business entity or person who arranges a lease or transfer of ownership of a mobile unit, but does not own the mobile unit. If the entity or person is an employee of the buyer, seller, lessor or lessee of the mobile unit, he/she shall not be considered a broker.

Chassis (vehicle): The integral part of the mobile unit on which the Bridge Inspection and Maintenance Device is mounted such as a truck, a trailer or an all-terrain vehicle, and provides mobility and support for the positioning assembly.

Configuration: All positions in which a mobile unit or any part thereof can be placed within its intended operating limits.

Critical components: Load supporting elements which support or stabilize the platform of the Bridge Inspection and Maintenance Device.

Dealer: A person or entity who buys from a manufacturer or distributor and who generally sells, rents, and services mobile units.

Delivery: Transfer of care, control, and custody of the mobile unit from one person or entity to another person or entity.

Directional controls: Controls that initiate functions that affect movement of the platform or the mobile unit.

Ductile materials: Materials that have a minimum elongation at failure of 10% in 2 inches (50.8 mm) gauge length based on a standardized test specimen.

Effective horizontal working range: Such horizontal measurements shall be from the edge of the supporting structure to the far end of the platform when the platform is positioned 90 degrees relative to the longitudinal axis of the supporting structure.

Employer: Any person, firm, partnership, association of persons or corporations or their legal representatives that make contracts of employment and have the right to direct and control work activities.

Equivalent entity: An organization, agency, or individual who, by possession of an appropriate technical degree, certificate, professional standing, or skill, and who, by knowledge, training, and experience, has demonstrated the ability to deal with the problems relating to the subject matter, the work, or the project.

Familiarization: Providing information regarding the location of the weather resistant compartment for storage of manuals, control functions, operational limits, and safety devices for the mobile unit to a qualified person or