ANSI/SAIA A92.10 - 2009 (R2014)

for

Transport Platforms

American National Standards Institute
11 West 42nd Street New York, New York 10036

Date of Publication: December 17, 2014

This Standard was approved by the American National Standards Institute on December 17, 2014

The design and manufacturing requirements of this standard apply to all aerial platforms manufactured on 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 & Access Industry Association, Inc. (SAIA) does not "approve," "rate," or "endorse" any item, construction, proprietary device or activity.

The Scaffold & Access Industry Association, Inc. (SAIA) 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 & Access Industry Association, Inc. (SAIA) accepts responsibility for only those interpretations issued in accordance with governing ANSI Essential Requirements which preclude the issuance of interpretations by individual volunteers.

This is a preview of "ANSI/SAIA A92.10-200...". Click here to purchase the full version from the ANSI store.

ANSI/SAIA A92.10-2009 (R2014)

AMERICAN NATIONAL STANDARD for TRANSPORT PLATFORMS

Secretariat

Scaffold & Access Industry Association, Inc.

Approved December 17, 2014

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 standard 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 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 & Access Industry Association, Inc. (SAIA) 400 Admiral Boulevard Kansas City, MO 64106

www.saiaonline.org

Copyright ©2014 by the Scaffold & Access 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 Transport Platforms, ANSI/SAIA A92.10-2009 (R2014).

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 & Access Industry Association, Inc. serves as Secretariat.

The primary objective of this standard is to prevent accidents associated with the use of Transport Platforms by establishing requirements for design manufacture, installation, maintenance, performance, use and training.

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 $^{\sim}$ Scaffold & Access Industry Association, 400 Admiral Boulevard, Kansas City, MO 64106

This Standard was processed and approved for submittal to ANSI by Accredited Standards Committee Aerial Platforms, A92 Aerial Work Platforms. 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 Work Platforms Committee had the following members:

Dave Merrifield, Chairman Frank Bonesteel, Vice-Chairman

Alimak Hek	Gregory Janda
Altec HiLine LLC	Eric Lumberg
Altec Industries, Inc	Bryan Hall
American Rental Association	Carla Brozick
Arrowhead Aerial Products, Inc	Sharon McCarty
Arrowhead Product Development, Inc	Gary Werkhoven
Association of Equipment Manufacturers	Daniel Moss
Blazing Technologies	Robert Backer
Brewington & Company	John Brewington
C.W. Wright Construction	Michael Stiles
Century Elevators	Erik Nordfelth
CPWR – The Center for Construction Research & Training	Pam Susi
Disneyland	

Diversified Inspections/ITL	
Duke Energy Carolina East	David Benson
Duke Energy Florida	Daniel Mueller
Eckstine & Associates, Inc	Dennis Eckstine
Elliott Equipment Company	Jason White
Entergy	Howard Guillory
Equipment Consultant Services Unlimited Inc	Bradley Nester
Equipment Safety Consultants, Inc	Charles Recard
Equipment Technology LLC	Brian Davis
Eric A. Schmidt, PE	Eric Schmidt
Evulich & Associates	Barris Evulich
EZ Scaffold	James Hinton
Florida Power & Light Company	Mike Paulson
Fraco Products Ltd	Francois Villeneuve
GAR Equipment	Richard Stollery
Genie Industries	Richard Curtin
Global Rentals	Joshua Chard
Global Safety & Equipment, Inc	Geoffrey Arther
H&E Equipment Services	Frankie Wynn
Haulotte Bil-Jax	Shahid Qureshi
Hayden Enterprises	Bud Hayden
Heath & Associates	Frederick Heath
Helac Corporation	Carl Kishline
Hy-Brid Lifts/Custom Equipment	Jeff Valind
Hydro-Mobile, Inc	Kevin O'Shea
Intercontinental Equipment Company LLC	Ron Norris
International Masonry Institute	Michael Kassman
IPAF, Ltd	Tony Groat
Irex Contracting Group	Tom Pokornik
Ives Training & Compliance Group Inc	Robert Vetter
JLG Industries, Inc	Steven Forgas
Klimer Platforms	James Gordon
Lee Electrical Construction, Inc	John Cook
Lift-A-Loft Corporation	Chris Barefoot
MEC Aerial Work Platforms	David White
Merrifield Safety Consulting LLC	Dave Merrifield
NES Rentals	Teresa Kee
New York State Dept of Transportation	Frank Bonesteel
OEM Controls, Inc	Harold Meeker
Paula R. Manning	Paula Manning
PCD, LLC	Paul Young
Phenix Technologies	Mark Miller
Pike Electric	Cliff Edwards
Power Equipment Leasing Company, Inc	Tracy Schroeder
Reynolds Engineering Servicing Inc	The state of the s
Safway Services	
SEA, Ltd	Brian Boggess
Sexton's Equipment Rental, Inc	David Sexton
Skyjack, Inc	Brad Boehler
Snorkel International. Inc	

This is a preview of "ANSI/SAIA A92.10-200...". Click here to purchase the full version from the ANSI store.

Southern California Edison Southern Company – Alabama Power Company	Ted Barron
Sunbelt Rentals	
Sunstate Equipment Co	Lance Sullivan
Sunstate Equipment Co Terex Telelect	Jim Olson
The VON Corporation	Fred von Herrmann
Time Manufacturing Company	James Christian
TRICO Lift	
TRL Rents, LLC	Keith Joseph
TRL Rents, LLCUnited Rentals	Jim Dorris
Utility Truck Equipment & Parts, LLC	John Mlaker
Vollmer-Gray Engineering	Paul Guthron
Waco Boom Company, Ltd	Woods
Wiss, Janney, Elstner Associates, Inc	Jason Kamman
Xtreme Manufacturing	

Subcommittee A92.10 on Transport Platforms, which developed this standard, had the following members:

Gregory Janda, Chairman

Ted Beville
Garvin Branch
Vincent DeQuoy
James Gordon
Barney Hanna
Ralph Hunsinger

James Jensen Kevin Lavorgna Paula Manning Dennis Mannion Kevin O'Shea Tim Riley Eric Schmidt Sony Trudel

Francois Villeneuve James Wilkinson

Page 7

Contents		Page	Contents		Page
1	Scope, purpose and application	8	3.9	Drive systems powered by internal	00
1.9	Referenced & Related Standards	9	0.40	combustion engines	33
1.10	Definitions	11	3.10	Hydraulic systems	34
2	Hazards	17	3.11	Special requirements for safety device	
2	пагагиѕ	17	2.10	that depend on auxiliary circuits	35 35
2	Sofaty requirements and/or		3.12 3.13	Travel limit switches	36
	Safety requirements and/or	19	3.13	Controls	30
3.1	measures Structural and stability calculations	19	4	Verification of safety requirements	
3.1.1	General	19	4	and/or measures	36
3.1.2	Loads and forces	19	4.1	Design check	36
3.1.3	Load combinations and safety factors	22	4.2	Practical tests	36
3.1.4	Structural calculations	23	4.2.1	General	36
3.1.5	Stability calculations	23	4.2.2	Overload test	37
3.2	General machine requirements,	20	4.2.3	Functional tests	37
0.2	base frame, chasis and mast	24	1.2.0	Tanononal toolo	01
3.2.1	General machine requirements	24	5	Information for use	37
3.2.2	Base frame and chassis	24	5.1	Instruction handbook	37
3.2.3	Mast structure	25	5.1.1	Comprehensive information	37
3.2.4	Mast design with regard to erection	25	5.1.2	Content of the instruction handbook	37
3.2.5	Mast ties	26	5.2	Marking	41
3.3	Platform	26	5.2.1	General	41
3.3.1	General	26	5.2.2	Information, non-varying	41
3.3.2	Guarding	26	5.2.3	Information, varying	41
3.3.3	Access	27	5.3	Responsibilities of dealers	41
3.4	Drive systems for elevation	27	5.4	Responsibilities of owners	43
3.4.1	General	27	5.5	Responsibilities of users	46
3.4.2	Rack and pinion system	27	5.6	Responsibilities of operators	51
3.4.3	Screw Drive System	28	5.7	Responsibilities of lessors	54
3.4.4	Ratchet Drive System	29	5.8	Responsibilities of lessee	54
3.4.5	Braking system	29	5.9	Responsibilities of brokers	54
3.4.6	Buffers	30			
3.5	Means to prevent the platform from			Footnote	56
	failing with overspeed	31			
3.5.1	General	31	Annex A	Informative for structural	
3.5.2	Overspeed safety device	31		calculations	57
3.5.3	System involving two or more drive un				
	fitted to each mast	32	Annex B	Minimum safe approach distances	59
3.6	Means for emergency, lowering and				
	raising the transport platform	32			
3.7	Electrical systems	33			
3.7.1	General	33			
3.7.2	Safety switches	33			
3.8	Control systems	33			

Page 8

1 Scope, purpose and application

1.1 Scope

This standard applies to Transport Platforms that are primarily used as a tool of the trade to vertically transport authorized persons, along with materials and necessary tools, to various access levels on a building or structure for construction, renovation, maintenance or other types of work. (See Figure I and Figure II on the following pages for typical examples of equipment covered). Some of the key requirements of this standard include, but are not limited to the following:

- a) Only authorized persons as defined by this Standard are permitted to be on the Transort Platform. The authorized persons shall have the necessary knowledge or experience or shall have received training prior to being on the Transport Platform. As a minimum, the training for Transport Platforms shall be the same as training requirements for scaffolds as set out in OSHA-CFR Subpart L, Scaffolds -1926.454 -Training Requirements.1 (end of document)
- b) the maximum number of authorized persons permitted on the platform shall be limited to the number equaling no more than 50% of the platform rated load capacity at 200 lbs per person
- c) the maximum vertical travel speed of the Transport Platform shall not exceed 40 ft/min (12 m/min)
- d) the Transport Platform shall operate at a safe minimum travel distance of 18 in. (0.46 m) from the building or structure
- e) the Transport Platform shall be operated from controls located on the platform by an authorized person trained by a competent person

1.2 Application

1.2.1

This standard is applicable to transport platforms elevated by a mechanical drive system and guided by and moving along their supporting masts, where the mast requires lateral restraint from separate supporting structures.

1.2.2

This standard is applicable to any combination of the

following alternatives:

- a) one or more masts
- b) mast of fixed or variable length
- c) vertical masts or inclined between 0° and 30° to the vertical
- d) driven using electric, pneumatic, hydraulic motors or internal combustion engines

1.3 Effective Dates

The design and manufacturing requirements of this standard apply to all Transport Platforms manufactured on or after the effective date of this standard. 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.

1.4 Requirements

Requirements of this standard are meant to:

- a) assist in the prevention of personal injuries and accidents.
- b) establish the criteria for design, manufacture, performance, inspection, training, maintenance, testing and operation.
- allow designers, manufacturers, dealers, owners, authorized persons, users, lessors, and lessees to establish and understand their respective responsibilities.

1.5 Exclusions

This standard does not specify the requirements for dealing with the hazards involved in the maneuvering, erection or dismantling, fixing or removing of any materials or equipment that are not part of the Transport Platform. Neither does it deal with the handling of specific hazardous materials.

1.6

This standard specifically deals with the requirements for delivering authorized persons and materials to fixed landing levels.

1.7

Transport Platforms are generally intended for use over level surfaces. Normally, they are not insulated for use near electrically energized circuits nor are