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American National Standard
Construction and Demolition Operations
Safety Requirements, Definitions and Specifications for Digger Derricks

Secretariat

American Society of Safety Professionals
520 N. Northwest Highway
Park Ridge, Illinois 60068

Approved May 14, 2019
Effective Date: June 1, 2020

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Foreword  (This Foreword is not a part of American National Standard A10.31-2019.)

This standard is one of a series of safety standards that have been formulated by the Accredited Standards Committee on Safety in Construction and Demolition Operations, A10. It is expected that the standards in the A10 series will find a major application in industry, serving as a guide to contractors, labor and equipment manufacturers. For the convenience of users, a list of existing and proposed standards in the A10 series for Safety Requirements in Construction and Demolition Operations follows.

A10.1 Pre-Project & Pre-Task Safety & Health Planning
A10.2 Safety, Health and Environmental Training (under development)
A10.3 Powder-Actuated Fastening Systems
A10.4 Personnel Hoists and Employee Elevators
A10.5 Material Hoists
A10.6 Demolition Operations
A10.7 Use, Storage, Handling and Site Movement of Commercial Explosives and Blasting Agents
A10.8 Scaffolding
A10.9 Concrete and Masonry Construction
A10.10 Temporary and Portable Space Heating Devices
A10.11 Personnel Nets
A10.12 Excavation
A10.13 Steel Erection
A10.15 Dredging
A10.16 Tunnels, Shafts and Caissons
A10.17 Safe Operating Practices for Hot Mix Asphalt (HMA) Construction
A10.18 Temporary Roof and Floor Holes, Wall Openings, Stairways and Other Unprotected Edges
A10.19 Pile Installation and Extraction Operations
A10.20 Ceramic Tile, Terrazzo and Marble Work
A10.21 Safe Construction and Demolition of Wind Generation/Turbine Facilities
A10.22 Rope-Guided and Non-Guided Workers’ Hoists
A10.23 Safety Requirements for the Installation of Drilled Shafts
A10.24 Roofing – Safety Requirements for Low-Sloped Roofs
A10.25 Sanitation in Construction
A10.26 Emergency Procedures for Construction Sites
A10.27 Hot Mix Asphalt Facilities
A10.28 Work Platforms Suspended from Cranes or Derricks
A10.29 Pre-Planning, Installation, Inspection and Use of Fall Protection for Construction and Demolition (under development)
A10.30 Installation of Anchors and Micropiles (under development)
A10.31 Digger-Derricks
A10.32 Personal Fall Protection Used in Construction and Demolition Operations
A10.33 Safety and Health Program Requirements for Multi-Employer Projects
A10.34 Lockout/Tagout in Construction
A10.35 Pressure Testing of Steel and Copper Piping Systems (under development)
A10.37 Debris Nets
A10.38 Basic Elements of a Program to Provide a Safe and Healthful Work Environment
A10.39 Construction Safety and Health Audit Program
A10.40 Reduction of Musculoskeletal Problems in Construction
A10.41 Lockout/Tagout in Construction
A10.42 Rigging Qualifications and Responsibilities in the Construction Industry
A10.43 Control of Health Hazards
One purpose of these standards is to serve as guides to governmental authorities having jurisdiction over subjects within the scope of the A10 Committee standards. If these standards are adopted for governmental use, the reference of other national codes or standards in individual volumes may be changed to refer to the corresponding regulations.

**Normative Requirements**

This standard uses the single column format common to many international standards. The normative requirements appear aligned to the left margin. To meet the requirements of this standard, machinery, equipment and process suppliers and users must conform to these normative requirements. These requirements typically use the verb "shall."

**NOTE:** The informative or explanatory notes in this standard appear indented, in italics, in a reduced font size, which is an effort to provide a visual signal to the reader that this is an informative note, not normative text, and is not to be considered part of the requirements of this standard; this text is advisory in nature only. The suppliers and users are not required to conform to the informative note. The informative note is presented in this manner in an attempt to enhance readability and to provide explanation or guidance to the sections they follow.

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Innovative Safety, LLC

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International Association of Heat & Frost Insulators & Allied Workers

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9.4 Application
1. Scope, Purpose, Requirements, Application and Exceptions

1.1 Scope

1.1.1 Equipment Covered. This standard applies to special multipurpose vehicle-mounted machines, commonly known as digger derricks. These machines are primarily designed to accommodate components that dig holes and/or set poles and position materials and apparatus.

NOTE: Depending on their use, digger derricks may be defined as a crane by government regulations, and operator’s certification may be required.

1.1.2 Equipment Excluded. Excluded from this standard are general-purpose cranes, designed only for lifting service and machines primarily designed for digging holes.

1.1.3 Uniform Specification Data. This standard establishes uniform requirements for design, specifications and dimensions.

1.1.4 Responsibilities. This standard defines the respective responsibilities of the manufacturer, dealer, installer, owner, user, operator, lessor or lessee, and broker of the digger derrick.

1.2 Purpose

This standard applies to the establishment of criteria for design, manufacture, testing, inspection, installation, maintenance, use, training and operation of vehicle-mounted digger derricks to achieve the following objectives:

1. prevention of personal injuries and accidents
2. uniformity in ratings
3. understanding by manufacturers, dealers, installers, owners, users, operators, lessors or lessees, and brokers of their respective responsibilities

1.3 Requirements

The requirements of this standard shall be met or exceeded.

1.4 Application

The design and manufacturing requirements of this standard apply to all digger derricks manufactured on or after the effective date. All other provisions apply to new or existing units in use on or after the effective date of this standard, regardless of their date of manufacture.

2. Referenced and Related Standards

2.1 Referenced American National Standards

This standard is intended to be used in conjunction with the following standards.

ANSI/SAIA A92.2-2015, Vehicle Mounted Elevating and Rotating Aerial Devices
ANSI/NEMA Z535.1-2017, Safety Colors
ANSI/NEMA Z535.3-2017, Criteria for Safety Symbols
ANSI/NEMA Z535.4-2017, Product Safety Signs and Labels