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# Mobile Cranes And Power Lines

## National Safety Council

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Crane Handbook

Cranes and Derricks

Crane Safety on Construction Sites

The Code of Federal Regulations of the United States of America

Safety & Health

Code of Federal Regulations

Preventing Worker Injuries and Deaths from Mobile Crane Tip-over, Boom Collapse, and Uncontrolled Hoisted Loads

Design, Analysis and Control of Cable-Suspended Parallel Robots and Its Applications

Safe Use of Cranes, Crane-shovels, Draglines and Similar Equipment Near Electric Power Lines

Safe Rigging Principles and Practices

Working Cranes Around Powerlines

Construction Safety Planning

Risk, Reliability and Safety: Innovating Theory and Practice

Mobile Cranes

Highway Safety Literature

Safety and health requirements manual

Material Handling Systems

Title 29 - Labor (Parts 1911-1925)

Electrical Codes, Standards, Recommended Practices and Regulations

General Industry Standards and Interpretations

Impact on Product Liability

Technical Highlights, Bureau of Mines Health and Safety Research Program, 1970-1980

The Port of Mobile, Alabama, Part 2

Port Series

Parliamentary Debates (Hansard)

The Port of Mobile, Alabama

Handbook of International Electrical Safety Practices

Over 200 U.S. Department of Energy Manuals Combined: CLASSICAL PHYSICS;

ELECTRICAL SCIENCE; THERMODYNAMICS, HEAT TRANSFER AND FLUID

FUNDAMENTALS; INSTRUMENTATION AND CONTROL; MATHEMATICS; CHEMISTRY;

ENGINEERING SYMBIOLOGY; MATERIAL SCIENCE; MECHANICAL SCIENCE; AND

NUCLEAR PHYSICS AND REACTOR THEORY

Appendix to the Journals of the House of Representatives of New Zealand

ALICE M. SCHULTZ V CONSUMERS POWER COMPANY, 443 MICH 445 (1993)

Construction Equipment Management

The Port of San Diego, California

The Engineer's Manual of Construction Site Planning

Decisions  
Occupational Safety and Health  
Parliamentary Debates  
ANSI/NSC I-743 New 90  
Risk-Reduction Methods for Occupational Safety and Health  
Labor (Parts 1910.100 - END)  
A Performance Evaluation of Two Overhead Power Line Proximity Warning Devices

*Mobile Cranes  
And Power  
Lines National  
Safety Council*      *Downloaded  
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## HEATH ANIYA

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*Crane Handbook* ProStar Publications  
Over 19,000 total pages  
... Public Domain U.S.  
Government published manual: Numerous illustrations and matrices. Published in the 1990s and after 2000. TITLES and CONTENTS:  
ELECTRICAL SCIENCES - Contains the following manuals: Electrical Science, Vol 1 - Electrical Science, Vol 2 - Electrical Science, Vol 3 - Electrical Science, Vol 4 - Thermodynamics, Heat Transfer, And Fluid Flow, Vol 1 - Thermodynamics, Heat Transfer, And Fluid Flow, Vol 2 - Thermodynamics, Heat Transfer, And Fluid Flow, Vol 3 - Instrumentation And Control, Vol 1 - Instrumentation And Control, Vol 2  
Mathematics, Vol 1 - Mathematics, Vol 2 - Chemistry, Vol 1 - Chemistry, Vol 2 - Engineering Symbology,

Prints, And Drawings, Vol 1 - Engineering Symbology, Prints, And Drawings, Vol 2 - Material Science, Vol 1 - Material Science, Vol 2 - Mechanical Science, Vol 1 - Mechanical Science, Vol 2 - Nuclear Physics And Reactor Theory, Vol 1 - Nuclear Physics And Reactor Theory, Vol 2. CLASSICAL PHYSICS - The Classical Physics Fundamentals includes information on the units used to measure physical properties; vectors, and how they are used to show the net effect of various forces; Newton's Laws of motion, and how to use these laws in force and motion applications; and the concepts of energy, work, and power, and how to measure and calculate the energy involved in various applications. \* Scalar And Vector Quantities \* Vector Identification \* Vectors: Resultants And Components \* Graphic Method Of Vector Addition \* Component Addition Method \* Analytical Method Of Vector Addition

\* Newton's Laws Of Motion \* Momentum Principles \* Force And Weight \* Free-Body Diagrams \* Force Equilibrium \* Types Of Force \* Energy And Work \* Law Of Conservation Of Energy \* Power - ELECTRICAL SCIENCE: The Electrical Science Fundamentals Handbook includes information on alternating current (AC) and direct current (DC) theory, circuits, motors, and generators; AC power and reactive components; batteries; AC and DC voltage regulators; transformers; and electrical test instruments and measuring devices. \* Atom And Its Forces \* Electrical Terminology \* Units Of Electrical Measurement \* Methods Of Producing Voltage (Electricity) \* Magnetism \* Magnetic Circuits \* Electrical Symbols \* DC Sources \* DC Circuit Terminology \* Basic DC Circuit Calculations \* Voltage Polarity And Current Direction \* Kirchhoff's Laws \* DC Circuit Analysis \* DC

Circuit Faults \* Inductance  
 \* Capacitance \* Battery  
 Terminology \* Battery  
 Theory \* Battery  
 Operations \* Types Of  
 Batteries \* Battery  
 Hazards \* DC Equipment  
 Terminology \* DC  
 Equipment Construction \*  
 DC Generator Theory \* DC  
 Generator Construction \*  
 DC Motor Theory \* Types  
 Of DC Motors \* DC Motor  
 Operation \* AC  
 Generation \* AC  
 Generation Analysis \*  
 Inductance \* Capacitance  
 \* Impedance \* Resonance  
 \* Power Triangle \* Three-  
 Phase Circuits \* AC  
 Generator Components \*  
 AC Generator Theory \* AC  
 Generator Operation \*  
 Voltage Regulators \* AC  
 Motor Theory \* AC Motor  
 Types \* Transformer  
 Theory \* Transformer  
 Types \* Meter Movements  
 \* Voltmeters \* Ammeters  
 \* Ohm Meters \*  
 Wattmeters \* Other  
 Electrical Measuring  
 Devices \* Test Equipment  
 \* System Components  
 And Protection Devices \*  
 Circuit Breakers \* Motor  
 Controllers \* Wiring  
 Schemes And Grounding  
**THERMODYNAMICS, HEAT  
 TRANSFER AND FLUID  
 FUNDAMENTALS.** The  
 Thermodynamics, Heat  
 Transfer, and Fluid Flow  
 Fundamentals Handbook  
 includes information on  
 thermodynamics and the  
 properties of fluids; the  
 three modes of heat  
 transfer - conduction,  
 convection, and radiation;  
 and fluid flow, and the  
 energy relationships in  
 fluid systems. \*  
 Thermodynamic  
 Properties \* Temperature  
 And Pressure  
 Measurements \* Energy,  
 Work, And Heat \*  
 Thermodynamic Systems  
 And Processes \* Change  
 Of Phase \* Property  
 Diagrams And Steam  
 Tables \* First Law Of  
 Thermodynamics \*  
 Second Law Of  
 Thermodynamics \*  
 Compression Processes \*  
 Heat Transfer  
 Terminology \* Conduction  
 Heat Transfer \*  
 Convection Heat Transfer  
 \* Radiant Heat Transfer \*  
 Heat Exchangers \* Boiling  
 Heat Transfer \* Heat  
 Generation \* Decay Heat \*  
 Continuity Equation \*  
 Laminar And Turbulent  
 Flow \* Bernoulli's  
 Equation \* Head Loss \*  
 Natural Circulation \* Two-  
 Phase Fluid Flow \*  
 Centrifugal Pumps  
**INSTRUMENTATION AND  
 CONTROL.** The  
 Instrumentation and  
 Control Fundamentals  
 Handbook includes  
 information on  
 temperature, pressure,  
 flow, and level detection  
 systems; position  
 indication systems;  
 process control systems;  
 and radiation detection  
 principles. \* Resistance  
 Temperature Detectors  
 (Rtds) \* Thermocouples \*  
 Functional Uses Of  
 Temperature Detectors \*  
 Temperature Detection  
 Circuitry \* Pressure  
 Detectors \* Pressure  
 Detector Functional Uses  
 \* Pressure Detection  
 Circuitry \* Level Detectors  
 \* Density Compensation \*  
 Level Detection Circuitry \*  
 Head Flow Meters \* Other  
 Flow Meters \* Steam Flow  
 Detection \* Flow Circuitry  
 \* Synchro Equipment \*  
 Switches \* Variable  
 Output Devices \* Position  
 Indication Circuitry \*  
 Radiation Detection  
 Terminology \* Radiation  
 Types \* Gas-Filled  
 Detector \* Detector  
 Voltage \* Proportional  
 Counter \* Proportional  
 Counter Circuitry \*  
 Ionization Chamber \*  
 Compensated Ion  
 Chamber \* Electroscopes  
 Ionization Chamber \*  
 Geiger-Müller Detector \*  
 Scintillation Counter \*  
 Gamma Spectroscopy \*  
 Miscellaneous Detectors \*  
 Circuitry And Circuit  
 Elements \* Source Range  
 Nuclear Instrumentation \*  
 Intermediate Range  
 Nuclear Instrumentation \*  
 Power Range Nuclear  
 Instrumentation \*  
 Principles Of Control  
 Systems \* Control Loop

Diagrams \* Two Position Control Systems \* Proportional Control Systems \* Reset (Integral) Control Systems \* Proportional Plus Reset Control Systems \* Proportional Plus Rate Control Systems \* Proportional-Integral-Derivative Control Systems \* Controllers \* Valve Actuators

**MATHEMATICS** The Mathematics Fundamentals Handbook includes a review of introductory mathematics and the concepts and functional use of algebra, geometry, trigonometry, and calculus. Word problems, equations, calculations, and practical exercises that require the use of each of the mathematical concepts are also presented. \*

Calculator Operations \* Four Basic Arithmetic Operations \* Averages \* Fractions \* Decimals \* Signed Numbers \* Significant Digits \* Percentages \* Exponents \* Scientific Notation \* Radicals \* Algebraic Laws \* Linear Equations \* Quadratic Equations \* Simultaneous Equations \* Word Problems \* Graphing \* Slopes \* Interpolation And Extrapolation \* Basic Concepts Of Geometry \* Shapes And Figures Of Plane Geometry \* Solid

Geometric Figures \* Pythagorean Theorem \* Trigonometric Functions \* Radians \* Statistics \* Imaginary And Complex Numbers \* Matrices And Determinants \* Calculus

**CHEMISTRY** The Chemistry Handbook includes information on the atomic structure of matter; chemical bonding; chemical equations; chemical interactions involved with corrosion processes; water chemistry control, including the principles of water treatment; the hazards of chemicals and gases, and basic gaseous diffusion processes. \*

Characteristics Of Atoms \* The Periodic Table \* Chemical Bonding \* Chemical Equations \* Acids, Bases, Salts, And Ph \* Converters \* Corrosion Theory \* General Corrosion \* Crud And Galvanic Corrosion \* Specialized Corrosion \* Effects Of Radiation On Water Chemistry (Synthesis) \* Chemistry Parameters \* Purpose Of Water Treatment \* Water Treatment Processes \* Dissolved Gases, Suspended Solids, And Ph Control \* Water Purity \* Corrosives (Acids And Alkalies) \* Toxic Compound \* Compressed Gases \* Flammable And Combustible Liquids

**ENGINEERING SYMBOLOGY.** The Engineering Symbology, Prints, and Drawings Handbook includes information on engineering fluid drawings and prints; piping and instrument drawings; major symbols and conventions; electronic diagrams and schematics; logic circuits and diagrams; and fabrication, construction, and architectural drawings. \*

Introduction To Print Reading \* Introduction To The Types Of Drawings, Views, And Perspectives \* Engineering Fluids Diagrams And Prints \* Reading Engineering P&IDs \* P&Id Print Reading Example \* Fluid Power P&IDs \* Electrical Diagrams And Schematics \* Electrical Wiring And Schematic Diagram Reading Examples \* Electronic Diagrams And Schematics \* Examples \* Engineering Logic Diagrams \* Truth Tables And Exercises \* Engineering Fabrication, Construction, And Architectural Drawings \* Engineering Fabrication, Construction, And Architectural Drawing, Examples

**MATERIAL SCIENCE.** The Material Science Handbook includes information on the structure and

properties of metals, stress mechanisms in metals, failure modes, and the characteristics of metals that are commonly used in DOE nuclear facilities. \* Bonding \* Common Lattice Types \* Grain Structure And Boundary \* Polymorphism \* Alloys \* Imperfections In Metals \* Stress \* Strain \* Young's Modulus \* Stress-Strain Relationship \* Physical Properties \* Working Of Metals \* Corrosion \* Hydrogen Embrittlement \* Tritium/Material Compatibility \* Thermal Stress \* Pressurized Thermal Shock \* Brittle Fracture Mechanism \* Minimum Pressurization-Temperature Curves \* Heatup And Cooldown Rate Limits \* Properties Considered \* When Selecting Materials \* Fuel Materials \* Cladding And Reflectors \* Control Materials \* Shielding Materials \* Nuclear Reactor Core Problems \* Plant Material Problems \* Atomic Displacement Due To Irradiation \* Thermal And Displacement Spikes \* Due To Irradiation \* Effect Due To Neutron Capture \* Radiation Effects In Organic Compounds \* Reactor Use Of Aluminum  
MECHANICAL SCIENCE.  
The Mechanical Science

Handbook includes information on diesel engines, heat exchangers, pumps, valves, and miscellaneous mechanical components. \* Diesel Engines \* Fundamentals Of The Diesel Cycle \* Diesel Engine Speed, Fuel Controls, And Protection \* Types Of Heat Exchangers \* Heat Exchanger Applications \* Centrifugal Pumps \* Centrifugal Pump Operation \* Positive Displacement Pumps \* Valve Functions And Basic Parts \* Types Of Valves \* Valve Actuators \* Air Compressors \* Hydraulics \* Boilers \* Cooling Towers \* Demineralizers \* Pressurizers \* Steam Traps \* Filters And Strainers  
NUCLEAR PHYSICS AND REACTOR THEORY. The Nuclear Physics and Reactor Theory Handbook includes information on atomic and nuclear physics; neutron characteristics; reactor theory and nuclear parameters; and the theory of reactor operation. \* Atomic Nature Of Matter \* Chart Of The Nuclides \* Mass Defect And Binding Energy \* Modes Of Radioactive Decay \* Radioactivity \* Neutron Interactions \* Nuclear Fission \* Energy Release From Fission \* Interaction Of Radiation With Matter \*

Neutron Sources \* Nuclear Cross Sections And Neutron Flux \* Reaction Rates \* Neutron Moderation \* Prompt And Delayed Neutrons \* Neutron Flux Spectrum \* Neutron Life Cycle \* Reactivity \* Reactivity Coefficients \* Neutron Poisons \* Xenon \* Samarium And Other Fission Product Poisons \* Control Rods \* Subcritical Multiplication \* Reactor Kinetics \* Reactor Cranes and Derricks Jeffrey Frank Jones Crane Safety on Construction Sites (ASCE Manuals and Reports on Engineering Practice No. 93) was written to aid the construction industry in the management of crane operations. Crane operations in construction range from unloading and setting equipment on a one-time basis to using numerous cranes that perform multiple tasks on larger complex projects. This manual addresses these variables by clearly defining and assigning crane management responsibilities. It discusses issues such as safety plans, responsibilities, supervision and management, operations, training, manufacture, crane safety devices, and regulations in some detail

as they relate to crane management. Appendixes are provided that list additional resources, manufacturers of crane safety devices, and explore case studies of crane accidents.

Crane Safety on Construction Sites John Wiley & Sons

This revised and updated edition of Construction Equipment Management fills a gap on this subject by integrating both conceptual and hands-on quantitative knowledge on construction equipment into a process that facilitates student learning. The first six chapters summarize interdisciplinary concepts that are necessary to ground students' learning on construction equipment management, including both engineering and economics. Each of the next 16 chapters covers a different type of construction equipment and associated methods of use. The final chapter introduces the more advanced concept of operation analysis. This allows the book to be used on numerous courses at different levels to prepare graduates to apply skills on construction equipment when planning for a new

project, estimating its costs, and monitoring field operations. Organized around the major categories of construction equipment, including both commercial and heavy civil examples, case studies, and exercises, this textbook will help students develop independence in applying concepts to hands-on scenarios. A companion website provides an instructor manual, solutions, additional examples, lecture slides, figures, and diagrams.

*The Code of Federal Regulations of the United States of America* CRC Press

Construction Safety Planning David V. MacCollum Construction Safety Planning is a comprehensive, practical, step-by-step guide for those who design and oversee large and small projects. Designed to facilitate compliance with new OSHA objectives, it presents, for those who are responsible for construction safety, what questions to ask in order to avoid conditions that invite injury or death on site. The book shows how to integrate safety planning into existing design and construction scheduling in order to avoid duplicating

paperwork that is normally associated with safety planning. Advice is given on how to involve all supervisory personnel as hazard hunters, so that timely prevention measures can be taken. Author David V.

MacCollum is a forty-five-year veteran safety engineer who participated in the development of safety planning concepts used by the U.S. Army Corps of Engineers on big dam projects in the Pacific Northwest during the 1950s. In this clearly written reference he highlights the concepts and practices that reduced construction deaths by 75 percent and are today still enabling the Corps of Engineers to enjoy the same reduction nationwide, when compared to similar work not under its supervision--the end result being savings of several billion dollars each year. The risk of death on the job for construction workers is five times greater than that of the average American worker. A new OSHA era will change that. With this book, everyone working in the field of construction--from design to maintenance--will have the tools and knowledge to make a difference.



**Safety & Health** Crane Institute of America Incorporated

This book provides an essential overview of the authors' work in the field of cable-suspended parallel robots, focusing on innovative design, mechanics, control, development and applications. It presents and analyzes several typical mechanical architectures of cable-suspended parallel robots in practical applications, including the feed cable-suspended structure for super antennae, hybrid-driven-based cable-suspended parallel robots, and cooperative cable parallel manipulators for multiple mobile cranes. It also addresses the fundamental mechanics of cable-suspended parallel robots on the basis of their typical applications, including the kinematics, dynamics and trajectory tracking control of the feed cable-suspended structure for super antennae. In addition it proposes a novel hybrid-driven-based cable-suspended parallel robot that uses integrated mechanism design methods to improve the performance of traditional cable-suspended parallel robots. A comparative study on error and

performance indices of hybrid-driven based and traditional cable-suspended parallel robots rounds out the coverage. This book addresses the needs of researchers, engineers and post-graduates in the field of cable-suspended parallel robots and related areas.

*Code of Federal Regulations* McGraw-Hill Companies  
92313

*Preventing Worker Injuries and Deaths from Mobile Crane Tip-over, Boom Collapse, and Uncontrolled Hoisted Loads* CRC Press

Includes reports of the government departments. Design, Analysis and Control of Cable-Suspended Parallel Robots and Its Applications

Cambridge Scholars Publishing

Risk, Reliability and Safety contains papers describing innovations in theory and practice contributed to the scientific programme of the European Safety and Reliability conference (ESREL 2016), held at the University of Strathclyde in Glasgow, Scotland (25–29 September 2016). Authors include scientists, academics, practitioners, regulators and other key individuals with expertise and experience relevant

to specific areas. Papers include domain specific applications as well as general modelling methods. Papers cover evaluation of contemporary solutions, exploration of future challenges, and exposition of concepts, methods and processes. Topics include human factors, occupational health and safety, dynamic and systems reliability modelling, maintenance optimisation, uncertainty analysis, resilience assessment, risk and crisis management.

Safe Use of Cranes, Crane-shovels, Draglines and Similar Equipment Near Electric Power Lines Springer

This paperback book is convenient for quick references or even a more in-depth study when time allows since it covers a myriad of crane-related subjects (varying from load charts, to operating around power lines, to inspection, to setup, etc.). The practical use of text and illustrations make it easy to find and understand the up-to-date, frequently revised content.

Safe Rigging Principles and Practices John Wiley & Sons

A valuable and

comprehensive safety reference for any organization working with or around electricity. This comprehensive guide informs working professionals in multiple industries, such as manufacturing, processing, or energy, about safety procedures that should be used on the job. It informs the reader about the hazards in the work place and what to do to make sure he/she is protected. The Handbook of International Electrical Safety Practices presents readers with the proper organizational skills needed to avoid hazardous injuries, details environmental monitoring techniques, and discusses how to ensure that proper protection is used on the job. The authors cover not only obvious electrical safety considerations, such as exposed wires and evacuation plans, but everything related to electrical safety, such as air quality, sound level, and radiation. This reference provides the most comprehensive coverage for any company to keep employees informed and to keep their work environment safe. The Handbook of International Electrical Safety Practices: Contains working plans

and templates for evaluating safety procedures and conditions in the plant. Covers common hazards and how to avoid them, such as radiation, noise, air quality, fire, and electric shock. Gives a comprehensive view of workers' rights and international regulations. Goes beyond regulations and laws to provide a workable blueprint for creating a safe industrial environment.

#### **Working Cranes Around Powerlines**

CreateSpace. Electrical codes, standards, recommended practices and regulations can be complex subjects, yet are essential in both electrical design and life safety issues. This book demystifies their usage. It is a handbook of codes, standards, recommended practices and regulations in the United States involving electrical safety and design. Many engineers and electrical safety professionals may not be aware of all of those documents and their applicability. This book identifies those documents by category, allowing the ready and easy access to the relevant requirements. Because these documents may be updated on a

regular basis, this book was written so that its information is not reliant on the latest edition or release of those codes, standards, recommended practices or regulations. No single document on the market today attempts to not only list the majority of relevant electrical design and safety codes, standards, recommended practices and regulations, but also explain their use and updating cycles. This book, one-stop-information-center for electrical engineers, electrical safety professionals, and designers, does. Covers the codes, standards, recommended practices and regulations in the United States involving electrical safety and design, providing a comprehensive reference for engineers and electrical safety professionals. Documents are identified by category, enabling easy access to the relevant requirements. Not version-specific; information is not reliant on the latest edition or release of the codes, standards, recommended practices or regulations. Construction Safety Planning Routledge Special edition of the Federal Register,



containing a codification of documents of general applicability and future effect ... with ancillaries. *Risk, Reliability and Safety: Innovating Theory and Practice* ASCE Publications

This handbook addresses problems facing the engineer when preparing to build, both during the contract bidding phase and after a contract has been concluded. It offers clear guidelines for planning the resources and machinery on site, as well as the safe positioning of roads, cranes, storage and temporary buildings. Site planning activities are presented here in logical sequence, offering an efficient and safe design of the construction site and of the temporary works. The book describes the process of engineering preparation of on-site construction works in all phases of the construction life-cycle, from the design phase - preparing the financial plan and procurement scheme for the owner before tendering the contract; the tendering phase; and after bid completion. A list of procedures is presented for planning the construction site in order to simplify the engineer's

work of site and temporary works planning. The Engineer's Manual of Construction Site Planning is for all those involved in the planning of construction sites, construction managers, construction engineers and quantity surveyors, as well as for students in civil engineering and construction.

Mobile Cranes John Wiley & Sons

This book points out the safety and health concerns as well as the regulatory requirements for safe material handling. Many material handling venues are discussed from cranes to industrial robots. This diverse approach to material handling safety will be of interest to those who are responsible for safety or having material handling as a major component of their operation.

**Highway Safety Literature** ProStar Publications

The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.

**Safety and health requirements manual**

William Andrew

Provides a thorough overview of systematic methods for reducing risks encountered in diverse work places Filled with more theory, numerous case examples, and references to new material than the original text, this latest edition of a highly acclaimed book on occupational safety and health includes substantial updates and expanded material on management systems, risk assessment methods, and OSH-relevant concepts, principles, and models. Risk-Reduction Methods for Occupational Safety and Health is organized into five parts: background; analysis methods; programmatic methods for managing risk; risk reduction for energy sources; and risk reduction for other than energy sources. It comprehensively covers both system safety methods and OSH management methods applicable to occupational health and safety. Suitable for worldwide applications, the author's approach avoids reliance on the thousands of rules, codes, and standards by focusing on understanding hazards and reducing risks using strategies and tactics. Includes more

content on methods for reducing risks, citations of recent research, and deeper coverage of OSH-relevant concepts, theories, and models. Merges methods and principles traditionally associated with occupational hygiene, ergonomics, and safety. Provides substantial updates on management systems and theories of occupational incidents, and includes new case studies in many chapters to help demonstrate the "real world" need for identifying and implementing risk-reduction strategies. Addresses occupational risks that go beyond current regulations and standards, taking an international approach by stressing risk-reduction strategies. Supports adoption of the book for university courses by providing chapter-specific learning exercises and support materials for professors. Risk-Reduction Methods for Occupational Safety and Health is ideal for safety professionals, system safety engineers, safety engineers, industrial hygienists, ergonomists, and anyone with OSH responsibilities. It is also an excellent resource for students preparing for a career in

OSH.

**Material Handling Systems** John Wiley & Sons

Any rigging activity is potentially very hazardous and complex. The rigging team must, therefore, possess the necessary knowledge and skill to identify the specific safety hazards associated with the rigging job at hand, and adopt appropriate rigging techniques for safe execution of the job. This book deals exhaustively with the scientific principles and safe practices involved in rigging heavy loads. As such, it is a must-read for all frontline managers and engineers who are primarily responsible for the safety of their teams involved in heavy rigging activities. Middle- and senior-level management personnel will also appreciate the book's discussion of the extreme hazards and complexities involved in rigging activities.

**Title 29 - Labor (Parts 1911-1925)** Butterworth-Heinemann

Crane Handbook offers extensive advice on how to properly handle a crane. The handbook highlights various safety requirements and rules. The aim of the book is to improve the readers'

crane operating skills, which could eventually make the book a standard working guide for training operators. The handbook first reminds the readers that the machine should be carefully tested by a regulatory board before use. The text then notes that choosing the right crane for a particular job is vital and explains why this is the case. It then discusses how well-equipped and durable the crane should be. The next chapters talk about the crane's operating controls; each control is identified and explained. The book lists the requirements that the crane must meet, while the final chapters explore proper set-up, maintenance, and precautions. The text is a very helpful reference for crane operators, owners, and contractors and could be of interest to casual readers as well.

Electrical Codes, Standards, Recommended Practices and Regulations

Many of the electrical fatalities in construction, mining, and other industries are due to personnel accidentally contacting overhead electrical power lines with high-reaching equipment such as mobile cranes. During a recent 10-year

period, approximately 20% of occupational electrocutions involved contact between mobile equipment and overhead power lines. In a typical power line contact accident, the frame of the equipment (and possibly a suspended load in the case of mobile cranes) is energized to a high voltage relative to the surrounding ground surface. Anyone touching the frame and ground simultaneously is exposed to this high voltage and can become a path for lethal levels of electrical current. Overhead electrical power line PWDs are mobile equipment-mounted safety devices intended to alert personnel if the equipment is operating too close to an energized overhead electrical power line. Such devices have been commercially available for more than 30 years, but have not found widespread acceptance in many industries due, in part, to a lack of regulatory requirements for their use. The Occupational Safety and Health Administration

(OSHA) is currently involved in updating the standards for cranes and derricks (29 CFR 1926.550). Part of the proposed revision addresses overhead power line safety for mobile cranes and includes explicit reference to PWDs as one of several acceptable measures for protecting workers from accidental power line contacts. With this proposal to accept PWDs as one means to maintain a safe distance between cranes and power lines (as specified in 29 CFR), NIOSH researchers concluded that an objective performance evaluation of PWDs would be valuable and timely. A performance evaluation of two commercially available overhead power line PWDs was conducted at NIOSH-PRL. The objective of the tests was to document performance capabilities and limitations for these PWDs by identifying factors that can influence their operation. The overall approach for this testing called for the two PWD companies to install their devices on a government-

owned 22-st (20-mt) rough terrain crane and specify procedures for their use. The crane was to be operated using a wide range of boom positions near several different configurations of energized overhead power lines, with the performance of the PWDs documented. This full-scale testing took place at a purpose-built overhead power line test site at PRL. PRL engineers coordinated and directed this research, but input for developing the test protocol was solicited from a number of cooperators, including the two PWD manufacturers participating in the study, an equipment manufacturing trade association representative, labor union representatives, OSHA, a large private construction and crane rental firm with experience using PWDs, and an electrical engineering consulting firm working as a NIOSH contractor.

[General Industry Standards and Interpretations](#)