



COLUMBUS McKINNON



Yale[®]
HOISTS

SHAW-BOX

CM[®]

COFFING[®]
HOISTS

BUDGIT[®]
Hoists



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COLUMBUS MCKINNON CORPORATION is a leading worldwide designer and manufacturer of material handling products, systems and services with over 253 combined years experience in engineering, design, manufacturing and customer support.

CMCO has a full service training organization offering classroom and hands-on instruction in all areas of material handling. We can assist you in meeting all OSHA and ASME requirements. Our highly skilled instructors possess extensive knowledge of regulatory issues and industry standards. They are recognized experts in the industry, bringing real world experiences to every seminar. With over 100 years experience in rigging engineering, safety, structural design, applications, modifications, installations, field service and technical support, our instructors will provide a fast-paced, information-packed learning experience which is second to none. A certificate will be awarded upon completion of all classes.

- Hoist Maintenance & Repair Service School* 3**
 - **CM Hoists**, all manual & electric chain hoists (2 day class)
 - **Coffing Hoists**, all manual & electric chain hoists (3 day class)
 - **Yale and SHAW-BOX**, Wire Rope service school (2 1/2 day class)
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- Hoist Technician Certification* 4**
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HOIST SERVICE SCHOOLS



COLUMBUS MCKINNON CORPORATION provides technical training on wire rope and chain hoists at our manufacturing facilities and training centers located throughout North America.

Maintenance training is provided for brands such as **CM, Coffing, Little Mule, SHAW-BOX, Yale and Budgit hoist**. Students will learn from experts how to diagnose and repair over 70% of the hoist brands present in industry today. Providing an excellent opportunity to acquire and improve hoist maintenance skills, these classes enable students to share similar challenges and solutions encountered on the job.

Maintenance & Repair School Outline

- Frequent and periodic maintenance and Inspection requirements in accordance with ASME / ANSI B30 standards, OSHA and CMAA Specification 74.
- Electric hoist anatomy
- Basic electrical theory
- Understanding the hoist's electrical system "Reading a wiring diagram"
- Understanding hoist braking systems: mechanical load brakes, electromechanical brakes holding brakes and regenerative braking
- Complete tear down and rebuild of Electric, Hand Chain and Lever Hoists
- Troubleshooting Skills



CM HOISTS **CM MAINTENANCE TRAINING** Course Code: CM-HSTMNT 2 DAY SEMINAR

Covering all manual & electric chain hoists
Conducted in Amherst, NY, Houston, TX, Santa Fe Springs, CA, Chicago, IL or customer's facility

COFFING[®] HOISTS **COFFING HOISTS MAINTENANCE TRAINING** Course Code: COF-MNT 3 DAY SEMINAR

Course covering all manual & electric hoists
Conducted in Amherst, NY, Houston, TX, Santa Fe Springs, CA, Chicago, IL or customer's facility

Yale[®] HOISTS **Yale, Budgit and SHAW-BOX MAINTENANCE TRAINING** 2 1/2 DAY SEMINAR

Wire Rope Service School Course Code: YLTTRAINING

SHAW-BOX[®] 2 DAY SEMINAR

BUDGIT[®] Hoists Chain Hoist Service School Course Code: YLTCTRAINING Contact us at 877-298-6511 for locations

HOIST TECHNICIAN CERTIFICATION



HOIST CERTIFICATION SCHOOLS Course Code: CMCO-CERT ALL BRANDS OR INDIVIDUAL BRAND CERTIFICATION

Certification will be offered at various locations throughout the country. Technicians will have the opportunity to receive certification on all CMCO brands or individual brands. Demand for quality training has increased rapidly in recent years. OSHA, ASME, CMAA and HMI have published regulations, guidelines and technical papers establishing minimum maintenance, repair and testing standards. Columbus McKinnon's mission is to improve the skill levels of hoist service and repair technicians through training, testing and certification of these professionals. CMCO Hoist Group has taken this responsibility one step further by offering a recognition program for highly qualified hoist repair and service facilities which will allow them to showcase their technicians and their commitment to excellence. This voluntary program will measure the skills necessary for competent job performance by testing the repair technicians' knowledge of on the job diagnostics and repair procedures per the latest industry standards and CMCO Hoist group's repair and service guidelines. Emphasis will be placed on establishments with **CMCO-Certified Professionals**. **Hoist technician certification** is designed for businesses striving to be the best.

Why Get Certified?

- Knowledge and skills can be recognized
- Increases credibility
- Establishes technical competence
- Consistent quality service
- Industry recognized hoist repair and service professionals
- Referrals for your certified technicians on the CM web site

How Will My Customers Benefit?

- Improves safety
- Establishes better relationships with a repair shop or service they can trust
- Consistent, satisfactory and dependable hoist repair service
- Measures the competence of individual technicians not the repair facilities or service

Pre-qualifications

- 1 year of hoist repair service.
- Written letter from employer required

How Long is Certification Good For?

- Certification is good for 5 years

RIGGING TRAINING



CM[®]
RIGGING
Products



RIGGING CERTIFICATION OFFERED

RIGGING TRAINING Course Code: **BAS-RIG**

Designed for rigging personnel and crane operators, this one day ensures maximum interaction between students and instructor. Participants will gain a solid understanding of the following:

- Definitions related to slings, hand hoists and rigging gear
- Rigging hardware specifications, identifications and selection criteria
- OSHA and ASME safety standards review
- Mandatory pre-use inspections
- Unsafe rigging practices
- Sling angle stress calculations
- Factors effecting working load limits
- Finding center of gravity
- Calculating load weights
- Developing lift plans
- Accident case studies

TRAINING CONDUCTED AT THE CUSTOMER'S SITE

CRANE & HOIST OPERATOR TRAINING

CAB, REMOTE AND PENDANT OPERATOR TRAINING Course Code: OP-TRN

All personnel responsible for operating cranes will benefit from this class. Conducted at the customer's facility, this course is a combination of classroom and hands on instruction ensuring maximum learning. This training can be tailored to conform to customer application and scheduling requirements. Students will acquire a working knowledge of:



- OSHA, CMAA and ANSI/ASME B30 regulations as they apply to hoist and crane operators
- Preoperational inspection requirements
- Operator responsibilities
- Proper lifting techniques
- Identifying unsafe situations
- Basic rigging safety

SAFE HOISTING Course Code: SAF-HST

For supervisors and those responsible for overseeing day to day crane and hoist operations. This 4-hour seminar will acquaint personnel with key areas of crane and hoist operation, to include:



- OSHA 1910.179 Regulations, ANSI / ASME B30 AND CMAA standards
- Maintenance and Inspection requirements
- Proper hoist usage / application
- Recognizing unsafe operating conditions

This training can include an assessment of customer's facility with follow-up report and recommendations

STATIC STEPLESS Course Code: STA-STP

This course is designed specifically for personnel responsible for routine crane maintenance and responding to break downs. By understanding proper system operation, participants will learn to identify problems early. Instruction begins with the basics and progresses through comprehensive coverage of every section of the controls. Students will receive detailed explanations of each module's function while learning troubleshooting tips, set-up procedures and fine tuning adjustments not provided in the manufacturer's service bulletins. Students will receive a 120-page workbook to serve as a valuable on the job resource.



- Power Distribution
- Block Diagrams
- Power supplies
- Motors and Electric Load Brakes
- Magnetic Amplifiers and Saturable Reactors
- Control Modules and Circuits

To get the most out of this training, students should have experience in troubleshooting motor control systems and a basic understanding of electronic and magnetic principles

SEMINARS CONDUCTED AT THE CUSTOMER'S SITE

CRANE & HOIST OPERATOR TRAINING



OPERATOR TRAINING (Train the Trainer) Course Code: OP-TT

This course includes all topics covered in the CAB, remote and pendant operator training class PLUS the following:

- Daily inspection and documentation requirements
- Discussion of damaged items
- Training techniques
- Hands on instruction
- Written exam

Each student will receive:

- Crane operator manual
- Sample inspection form
- Recommended preventive maintenance program
- Safe operation DVD
- Electronic copy of training material

SEMINARS CONDUCTED AT THE CUSTOMER'S SITE



CRANE & HOIST INSPECTION

INSPECTION / CERTIFICATION Course Code: CRH-CRT

This 3-day seminar is the most comprehensive crane and hoist inspection training available anywhere and is applicable to all cranes and hoists regardless of manufacturer.

Top running and Underhung Cranes, Monorails, Electric, Pneumatic, Hand Chain and Lever Hoists are discussed in every detail. Students will gain competence in evaluating deficiencies and spotting safety related items, while learning to interpret Federal Regulations, National Standards and Crane and Hoist Specifications. Participants will receive a 280-page work-book filled with photos, charts and references to relevant standards for every inspection item discussed. All attendees will receive a Course Completion Certificate.

Certification is optional and requires passing a fifty question, multiple choice examination. Those successfully completing the exam will receive a laminated "Crane Inspection Certification Card" stating the individual has met the criteria set forth by Crane Manufacturers Association of America, Specification 78, and is certified to inspect cranes and hoists.

Crane and Hoist Configurations & Applicable Standards

- OSHA 1910.179 & 184
- ASME B30.2-10-11-16-17-20 & 21
- CMAA specification 70, 74 & 78

Crane and Hoist Structures

- Marking and construction
- Bridge, cab, trolley, runway, tracks, switches, stops & bumpers
- Wheels, bearings, couplings, shafts, guards
- Lever and hand chain hoists, pawl and ratchet, friction brake

Brakes

- Holding brakes / motor brakes (disc and drum)
- Control brakes / load brakes (power and mechanical)

Inspection Classifications & Record Keeping Requirements

- Every lift, daily, frequently and periodic

Chain

- Load chain (welded link and roller chain)
- Rigging chain (for below the hook devices)
- Hand chain

Electric Equipment

- Motor, brushes, slip rings and commutators
- Resistors, contacts and overloads
- Controls (floor, remote and cab)
- Limit switches, warning devices, disconnects

Below the hook devices (time permitting)

- Friction, structural, vacuum and magnet types
- Slings, shackles, bolts

Wire rope, hooks, blocks, sheaves and drums

Load Testing

SEMINARS CONDUCTED

AT THE CUSTOMER'S SITE & AT OUR MANUFACTURING FACILITY IN WADESBORO, NC

CRANE & HOIST FREQUENT / MONTHLY INSPECTION

FREQUENT / MONTHLY INSPECTION Course Code: MON-ISP

This 1-day class is designed for personnel responsible for performing frequent or monthly inspections of overhead cranes and hoists. Students will learn how to conduct and document these inspections in compliance with OSHA Regulations and ASME Standards. Training is a combination of classroom instructions and hands-on inspection to ensure maximum learning benefit is achieved.

Students will learn:

- Crane and hoist configurations & applicable standards
- Inspection classifications & record keeping requirements
- Require daily inspections
- Monthly inspection & rejection criteria established by OSHA regulations, ASME standards and equipment manufacturers on the following;
 - Hooks, wire rope, chain, sheaves
 - Controls, limit switches, warning devices & disconnects
 - Holding brakes and load brakes
 - Below the hook devices

Each student will receive:

- 112 page workbook with photos, charts and references
- Sample inspection & load testing forms



SEMINARS CONDUCTED AT THE CUSTOMER'S SITE

LOAD SECUREMENT TRAINING



Course Code: CM-LDS

This Course is designed to educate those responsible for securing loads on over the road transportation vehicles and those responsible for enforcement. Course information is based on the North American Cargo Securement Standard incorporated in the regulations for the United States and Canada.

Students will learn:

- Application and interpretation of rules: CVSA Cargo Securement Guidelines, Federal Highway and D.O.T. requirements.
- Determining how a load is placed and attached to a transportation vehicle
- How to determine tie down requirements (Direct and Indirect Attachments)
- Forged securement hardware vs castings
- Requirements for general cargo and specific loads
 - Steel Coils
 - Concrete
 - Construction equipment
 - Pipes/cylindrical loads
 - Logs, lumber or building products
- Steel haulers, crushed car haulers
- Out of Service and inspection criteria for securement hardware (chains, binders, straps etc.)
- Drivers responsibility

Each student will receive:

- One copy of Practical Cargo Securement Guidelines for Drivers, Carriers and Shippers.

**SEMINARS CONDUCTED
AT THE CUSTOMER'S SITE OR AT OUR REGIONAL LOCATION**

PRODUCT SALES TRAINING



PRODUCT SALES TRAINING Product sales training will orient students to each organization and our product lines, with emphasis on features and benefits. Product applications, user base and competitive comparisons are among the topics for discussion. Each student will gain a clear understanding of what CMCO brands stand for and what makes us one of the World Leaders in Material Handling. Designed for inside and outside sales professionals.

- Hands on product demonstrations
- General hoist design and construction
- Sizing, selecting and pricing the correct hoist
- Review of standards & regulations (HMI, NACM, ANSI, ASME, OSHA, NFPA)
- Special applications
- Designed to increase sales & profits with a more knowledgeable sales team.



CM PRODUCT SALES TRAINING Course Code: CM-SS 2 DAY SEMINAR

Discussing the complete line of CM Brand Hoist (electric, air and manual) , Rigging Products, Loderail, Cady Lifters and CamloK. (Conducted in: Chicago, IL, Houston, TX, Amherst, NY and Santa Fe Springs, Ca.)



COFFING COLLEGE PRODUCT SALES TRAINING Course Code: COF-COL 3 DAY SEMINAR

Will orient students to the Coffing organization and our product line, with emphasis on features and benefits. Product applications by industry and competitive comparisons are among the topics discussed. Each student will gain a clear understanding of what the CMCO brand stands for and what makes us a leader in the industry. Included in this instruction is the little Mule® product line. (Conducted at Coffing Hoist, Wadesboro, NC Manufacturing facility, plant tour included)



Yale, Budgit and SHAW-BOX PRODUCT SALES TRAINING

Offers Sales training for both wire rope and chain hoists. Training has been developed for inside customer service and outside sales personnel. Classes will be held twice a year. (Contact us for locations)



2 DAY SEMINAR

Wire Rope Sales School Course Code: YSB-WSS



2 DAY SEMINAR

Chain Hoist Sales School Course Code: YSB-CSS

Contact us at 877-298-6511 for locations

Attendees are responsible for travel and hotel accommodations. Lunches are provided for the duration of the training seminar.



COLUMBUS McKINNON

COURSE TITLE	COURSE CODE	COURSE LENGTH	NUMBER OF STUDENTS
Crane and Hoist Inspection & Certification	CRH-CRT	3 Days	10
Crane and Hoist Frequent / Monthly Inspection	MON-ISP	1 Day	15
Crane Operator Training	OP-TRN	1 Day	15
Crane Operator Train the Trainer	OP-TT	1 Day	15
Rigging	BAS-RIG	1 Day	20
Load Securement	CM-LDS	1 Day	20
CMCO Certification	CMCO-CERT	4 Days	30
CM Hoist Maintenance	CM-HSTMNT	2 Days	8
Coffing Hoist Maintenance	COF-MNT	3 Days	8
Yale, SHAW-BOX Wire Rope Maintenance	TLTRAINING	3 Days	8
Yale, Budgit Chain Hoist Maintenance	YLTCTRAINING	2 Days	8
Safe Hoisting	SAF-HST	1 Day	10
Static Stepless® Crane Controls	STA-STP	3 Days	10
CM Product Sales Training	CM-SS	2 Days	No Limit
Coffing Product Sales Training	COF-COL	3 Days	No Limit
Yale, SHAW-BOX, Wire Rope Sales Training	YSB-WSS	2 Days	No Limit
Yale, Budgit Chain Hoist Sales Training	YSB-CSS	1 Day	No Limit

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