

# RECOMMENDED PRACTICES

## WORKSTATION CRANES AND PATENTED TRACK SYSTEMS

Because the manufacturer has no direct control over the workstation crane or patented track system and its operation, conformance with good safety practice is the responsibility of the owner, the user and the operating personnel. ANSI/ASME B30.16, ASME B30.11-2004, ANSI MH27.1 and MH27.2 have been used as a guide in preparing this list of SHALL's and SHALL NOT'S. Ask your supervisor for a copy of these specifications and the manufacturer's operation and maintenance instructions. Each recommendation listed below is identified according to ANSI/NEMA Z535.4 with either the signal word CAUTION or WARNING to indicate the degree of seriousness.

### **WARNING**

Improper operation of a system can create a potentially hazardous situation which, if not avoided, could result in death or serious injury. To avoid such a potentially hazardous situation, **the operator:**

#### **CORRECT DESIGN AND INSTALLATION**

1. Shall make sure that workstation crane or the patented track system is installed by a qualified installer, according to the manufacturer's installation instructions, and exactly to the system layout drawings.
2. Shall insure the suitability of the building or freestanding structure to support the system loading.
3. Shall **NOT** use a workstation crane or the patented track system to lift, support, or transport people, unless the system is specifically designed for that purpose.
4. Shall **NOT** operate a workstation crane or the patented track system if it restricts vertical lifting without side pull.

#### **PROPER OPERATION**

5. Shall make sure load slings or other approved single attachments are properly sized.
6. Shall **NOT** lift more than rated load for the workstation crane or the patented track system, as specified on the capacity labels and the system design drawings.
7. Shall **NOT** operate unless load is centered under a workstation crane or the patented track system.
8. Shall **NOT** lift or move loads over people.
9. Shall **NOT** leave load supported by the workstation crane or the patented track system unattended unless specific precautions have been taken.
10. Shall be familiar with operating controls, procedures, and warnings.
11. Shall make sure the unit is securely attached to a suitable support before applying load.
12. Shall take up slack carefully - make sure load is balanced and the load holding action is secure before continuing.
13. Shall make sure all persons stay clear of the supported load.
14. Shall make sure end stops or travel limit switches function properly.
15. Shall always warn personnel of an approaching load.
16. Shall be trained in the correct and safe operation of the system.

#### **PROPER INSPECTION AND MAINTENANCE**

17. Shall **NOT** use a damaged workstation crane or the patented track system or one that is not working properly.
18. Shall **NOT** use a system that has hoist with twisted, kinked, damaged, or worn wire rope or chain.
19. Shall **NOT** use a workstation crane or the patented track system that has worn trolleys.
20. Shall **NOT** use a workstation crane or the patented track system that has bent or deformed track sections or hangers.
21. Shall **NOT** remove or obscure the rated capacity sign, warnings and labels on a workstation crane or the patented track system.
22. Shall shut down a workstation crane or the patented track system that is not operating properly.
23. Shall report malfunctions or unusual performances of the workstation crane or the patented track system.

### **CAUTION**

Improper operation of a system can create a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. To avoid such a potentially hazardous situation, **the operator:**

#### **CORRECT DESIGN AND INSTALLATION**

1. Shall make sure the load is free to move and will clear all obstructions.
2. Shall make sure load travel is in the same direction as shown on controls.
3. Shall **NOT** allow the workstation crane or the patented track system movements to be subjected to interference or contact other systems, structures, or objects through misuse.

#### **PROPER OPERATION**

4. Shall maintain a firm footing or be otherwise secured when operating the workstation crane or the patented track system.
5. Shall check brake functions by tensioning the load prior to each lift operation.
6. Shall avoid swinging the load or hook.
7. Shall **NOT** use limit switches and end stops as routine operating stops unless allowed by manufacturer. They are emergency devices only.
8. Shall **NOT** allow your attention to be diverted from operating the workstation crane or the patented track system.

#### **PROPER INSPECTION AND MAINTENANCE**

9. Shall inspect the workstation crane or the patented track system according to the manufacturer's recommended intervals, replace damaged or worn parts, and keep appropriate records of maintenance.
10. Shall use the workstation crane or the patented track system manufacturer's recommended parts when repairing the unit.
11. Shall lubricate the system as required by the workstation crane or the patented track system manufacturer's recommendations.
12. Shall **NOT** adjust or repair the workstation crane or the patented track system unless qualified and trained to perform such adjustments or repairs.

### **NOTICE**

#### **Additional requirements**

1. Read ANSI/ASME B30.16, B30.11, MH27.1, MH27.2
2. Read the workstation crane or the patented track system manufacturer's Operating and Maintenance Instructions.
3. Read all labels and warnings attached to the system.
4. Have the system layout designed by the manufacturer or a trained representative of the manufacturer.
5. Keep a design file on the system that includes all design drawings, calculations, engineering and technical data and the manufacturers operation and maintenance instructions.
6. Maintain detailed records of inspections, maintenance and operator training.
7. Operators should be authorized, trained and licensed if required by County, State or Federal Governing Authority.

## **DISCLAIMER**

Under no circumstances does the Monorail Manufacturers Association (MMA) or the Material Handling Industry (MHIA) assume any liability for the use of these voluntary recommendations, and no warranty whatsoever is made in connection with them. The recommendations do not take precedence over existing plant safety rules and regulations, OSHA regulations or instructions issued by the workstation crane or patented track manufacturer. It is the user's intent to absolve and protect MMA and MHIA from any and all liability, in tort or otherwise.

# What is MMA?

## What is MMA?

Founded in 1933, the **Monorail Manufacturers Association, Inc. (MMA)** is an independent incorporated trade association affiliated with the Material Handling Industry. MMA Member Companies produce the preponderance of patented and enclosed track underhung cranes and monorail systems. MMA operates through committees with programs and policies reviewed and adopted by the membership with representation from each member company. Its many activities include an active engineering committee. MMA is represented on a number of standards developing committees and actively support the development and certification of safety standards by the ANSI consensus method.

## MMA Mission

Our Mission is to deliver real value to our members, channel partners, consumers and users by:

- Driving demand for products and services
- Delivering education and professional development programs
- Creating a forum for collaboration
- Promoting safety and proper monorail applications
- Making membership compelling

## MMA Vision

**MMA** is recognized as the leading authority and a principal resource in the overhead material handling industry. MMA is recognized as the leading advocate for the safe application and operation of enclosed track, patented track and automated electrified monorail equipment, systems and related products. MMA members are the recognized leaders in the marketplace and the subject matter experts. We will achieve this by:

- Delivering superior value in our products and services
- Providing products and services that are safe and productive.
- Proving high value solutions directly through knowledgeable and expert channel partners.
- Providing an environment in which our customers can confidently purchase and derive superior value from our products.



# Value Statement

What is the value of membership in the **Monorail Manufacturers Association, Inc. (MMA)**?

1. Market Intelligence Information:
  - a. Unit and volume statistics program
  - b. Market forecasts and economic indicator monitoring
  - c. Industry forecasts
  - d. Geographic product distribution and planning data, workshops
  - e. Channel partner planning workshops
  - f. Trend monitoring
  - g. Planning and forecasting tools, workshops
2. Members Professional Development
  - a. Leadership development
  - b. Multi-topic educational series
  - c. Networking throughout the industry
  - d. Peer to peer interaction
3. Promotion of the Safe Use of our Products
  - a. Development of product standards
  - b. Development of maintenance and service inspection manuals
  - c. Development of proper hoist usage documents
  - d. Alliance program with OSHA to promote safety
  - e. Tip and Fact Sheets for OSHA distribution
4. MMA Members are recognized as the Market's Leaders; MMAI Members:
  - Are Speakers and Education Subject Experts
  - Provide Engineering Specification and Standards Input
  - Publish a Compendium of Product Standards
5. Increased Exposure to Customers
  - Web-based Case Studies provide Market Solutions to Users
  - MHIA Website channels customers to MMA members
  - MMA Certified Program Increases Product Value

Participation in **MMA** can increase your business levels, increase your exposure in the marketplace, develop your employees, help your corporate decision-making, increase safe usage of your products, and position you as one of the leaders in the monorail industry.



For information regarding membership, standards, specifications, market research initiatives, industry statistics, literature or publications. MMA Managing Director Hal Vandiver: [hvandiver@mhia.org](mailto:hvandiver@mhia.org)  
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Call the Material Handling Institute Literature Department at 800-345-1815 or 704-676-1190 or go to [www.mhia.org/mma](http://www.mhia.org/mma) , “Publications and Resources”, to order the following MMA publications:

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### **MH27.1 - 2009- Specifications for Patented Track Underhung Cranes and Monorail Systems**

Approved and published in 2009, this publication was developed by the Monorail Manufacturers Association, Inc. to assist manufacturers and users of underhung cranes and monorail systems. This specification was originally approved as an MMA consensus standard in 1973, was subjected to the ANSI Canvass Review Process, and is now available as an American National Standard. Includes discussion of curves, switches, transfer devices, trolleys, lift and drop sections and associated equipment. FREE DOWNLOAD

### **MH27.2 - 2009 - Specifications for Enclosed Track Underhung Cranes and Monorail Systems**

Approved and published in 2009, this standard was sponsored by the Monorail Manufacturers Association, Inc. in the interest of improved uniformity of underhung crane and monorail performance and enhanced public safety. This standard, that was developed under the ANSI Canvass method and approved by ANSI on September 10, 2003, represents suggested design practices and performance testing criteria for crane and monorail equipment. It was developed with the sole intent of offering information to parties engaged in the manufacture, marketing, purchase, or use of crane and monorail equipment. FREE DOWNLOAD

### **Guidelines for Specifying AEM Systems**

These Guidelines have been developed by the member companies of the Automated Electrified Monorail (AEM) Product Section of the Material Handling Institute, a division of the Material Handling Industry (MHI), which is comprised of leading suppliers of Automated Electrified Monorail systems in North America.

Their purpose is to act as a guide in the selection, design, planning and implementation of Automated Electrified Monorail Systems. FREE DOWNLOAD

### **Recommended Practices – Workstation Cranes and Patented Track Systems**

The Monorail Manufacturers Association (MMA), an association affiliated with Material Handling Industry, has produced recommended Practices of Workstation Cranes and Patented Track Systems. Because the manufacturer has no direct control over the workstation crane or patented track system and its operation, conformance with good safety practice is the responsibility of the owner, the user and the operating personnel. ANSI/ASME B30.16, ASME B30.11-2004, ANSI MH27.1 and MH27.2 have been used as a guide in preparing this list of SHALL's and SHALL NOT's. Shall's and Shall Not's are each one page and handy for posting on bulletin boards or in areas where hoists are used. FREE DOWNLOAD



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