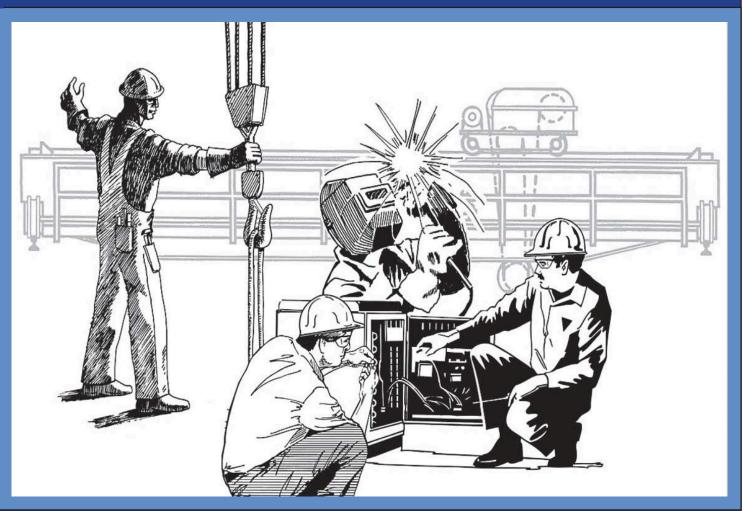


Standards and Guidelines for Professional Services Performed On Overhead and Traveling Cranes and Associated Hoisting Equipment

Prepared by:

The Crane Manufacturers Association of America, Inc.

**78** 



CMAA Specification #78, Revised 2015



This is a preview. Click here to purchase the full publication.

CMAA Specification No. 78-2014
Standards and Guidelines for Professional Services Performed
On Overhead Traveling Cranes and Associated Hoisting Equipment

#### INTRODUCTION

These Standards and Guidelines designated CMAA Specification No. 78-2014 (Specification) have been developed by the Crane Manufacturers Association of America, Inc. (CMAA) an organization of leading electric overhead traveling crane manufacturers in the United States. The purpose is to recognize overhead traveling crane service and the service for associated hoisting equipment as an "industry" worthy of having guidelines and standards for providing high quality, professional services performed by safety-minded, manufacturer-trained and certified technicians.

This Specification also contains information that should be helpful to the users of cranes, as well as to engineers in the facility and maintenance professionals. While much of this information must be of a general nature, the items listed may be checked with individual manufacturers. Additional comparisons may be made leading to optimum selection of a service provider based on input from the Original Equipment Manufacturer (OEM).

The words "shall" and "should" are used throughout this Specification. Definitions shall be in accordance with the American Society of Mechanical Engineers B30 (ASME B30) standards as follows:

Shall: this word indicates that a rule is mandatory and must be followed.

Should: this word indicates that a rule is a recommendation, the advisability

of which depends on the facts in each situation.

This Specification consists of six sections, as follows:

78-1. General Information

78-2. Technical Qualifications

78-3. Jobsite Safety Guidelines

78-4. Crane Inspection and Maintenance

78-5. Genuine OEM (Factory) Parts

78-6. Crane Service Classifications

Appendix

Glossary

Index

No part of this Specification may be reproduced in any form without the prior written permission of the publisher.

Copyright ©2014 by Crane Manufacturers Association of America, Inc. All rights reserved.

## **DISCLAIMERS**

The Crane Manufacturers Association of America, Inc. (CMAA) is an independent incorporated trade association affiliated with Material Handing Industry (MHI). MHI provides CMAA with certain services and arranges for the development, production and distribution of these Standards and Guidelines/Specification. Neither MHI, its officers, directors nor employees participated in any way in the preparation of the information contained in these Standards and Guidelines; and MHI does not approve, rate, or endorse these Standards and these Guidelines.

These Standards and Guidelines represent suggested technical qualifications for service and inspection personnel and guidelines for jobsite safety and inspection procedures. It was developed with the sole intent of offering information to parties engaged in the manufacture, marketing, purchasing, servicing or use of such cranes. These Standards and Guidelines are advisory only and should be regarded as a guide that the user may or may not choose to adopt, modify, or reject. The information does not constitute a comprehensive safety program and should not be relied upon as such. Such a program should be developed and an independent safety adviser consulted to do so.

The acceptance or use of these Standards and Guidelines are completely voluntary. Their existence does not in any respect preclude any company, whether it has approved the Standards and Guidelines or not, from manufacturing, marketing, purchasing, servicing, or using products, processes or procedures not conforming to these Standards and Guidelines.

## **Disclaimer of Liability**

CMAA and its members assume no responsibility and disclaim all liability of any kind, however arising, as a result of acceptance or use or alleged use of these Standards and Guidelines. The user specifically understands and agrees that CMAA, its officers, agents, and employees shall not be liable under any legal theory of any kind for any action or failure to act with respect to the design, manufacture, preparation for sale, erection, installation, inspection, service, or characteristics, features, or delivery of anything covered by these Standards and Guidelines. Any use of this information must be determined by the user to be in accordance with applicable federal, state, and local laws and regulations.

## **DISCLAIMER OF WARRANTY**

CMAA makes <u>NO WARRANTIES</u> of any kind, express, implied, or statutory, in connection with the information in these Standards and Guidelines. CMAA SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR PARTICULAR PURPOSE.

## Indemnity

By referring to or otherwise employing these Standards and Guidelines, the user agrees to defend, protect, indemnify, and hold CMAA, its officers, agents, and employees harmless from and against all claims, losses, expenses, damages, and liabilities, direct, incidental, or consequential, arising from acceptance or use or alleged use of these Standards and Guidelines, including loss of profits and reasonable attorney's fees which may arise out of the acceptance or use or alleged use of these Standards and Guidelines. The intent of this provision and of the user is to absolve and protect CMAA and its officers, agents, and employees from any and all loss relating in any way to these Standards & Guidelines, including those resulting from the user's own negligence.

## **NOTICE**

It is the responsibility of the owner/user to install, inspect, test, maintain, and operate a crane or associated lifting equipment in accordance with the applicable volume of the ANSI/ASME B30 Safety Standard, OSHA Regulations, and ANSI/NFPA 70, National Electric Code, Local regulations and laws. If the crane or associated lifting equipment is installed as part of a total lifting system, it is also the responsibility of the owner/user to comply with the applicable ANSI/ASME B30 volumes that address other types of equipment used in the system.

Further, it is a responsibility of the owner/user to require all personnel who will install, inspect, test, maintain, and operate a crane or associated lifting equipment, to read and to comply with the contents of the instruction manuals furnished by the manufacturer of the crane or associated lifting equipment, and the applicable portions of the volume of the ANSI/ASME B30 Safety Standard, OSHA Regulations, and ANSI/NFPA 70, National Electric Code. If the crane or associated lifting equipment is installed as part of a total lifting system, the applicable ANSI/ASME B30 volumes that address other types of equipment used in the system must also be read and followed by all personnel.

# **Table of Contents**

78-1 GE	ENERAL INFORMATION	6
1.1	SCOPE	6
1.2	Reference Documents	
78-2 TE	CHNICAL QUALIFICATIONS	8
2.1.		
2.2.	Crane Inspector	9
78-3 JC	BSITE SAFETY GUIDELINES	
3.1	Commitment to Safety Statement	
3.2	Employee Responsibility	
3.3	Safety Orientation and Documentation	
3.4	Regulations	
3.5	Equipment Operator Certification	
3.6	Safety and First Aid	
3.7	Drug-Free Workforce	
3.8	Personal Protective Equipment	
3.9	Equipment, Rigging, Tools	
3.10	Fire Prevention	
3.11	Ergonomics	15
	RANE INSPECTION, MAINTENANCE AND LOAD TESTING	
	Initial Inspection:	
	Pre-shift Inspection	
	e 4.2-1 List of Pre-shift Inspection Items	
	Frequent Inspection	
lable	4.3-2 List of Frequent Inspection Items	19
	Periodic Inspection	
	e 4.4-2 List of Periodic Inspection Items	
4.5.	1 3	
4.6.	Maintenance	
4.7.		23
	ENUINE OEM (FACTORY) PARTS	
5.1	General Purpose	
5.3	Application and Design Familiarity	
5.4	Component Updating and Modernization	
5.5	Root Cause Analysis and Solutions	
5.6	Recommendation for Complete Parts Requirements	
5.8 5.9	Technical Information	
5.9 5.10	Packaging	
U. IU	DEMONOUS SOURCE	<b>Z</b> ()

78-6 CF	RANE CLASSIFICATIONS	27
6.1	GENERAL	.27
6.2	CLASS A (STANDBY OR INFREQUENT SERVICE)	27
6.3	CLASS B (LIGHT SERVICE)	.27
6.4	CLASS C (MODERATE SERVICE)	.28
6.5	CLASS D (HEAVY SERVICE)	.28
6.6	CLASS E (SEVERE SERVICE)	.28
6.7	CLASS F (CONTINUOUS SEVERE SERVICE)	.28
6.8	CRANE SERVICE CLASS IN TERMS OF LOAD CLASS AND LOAD	
	CYCLES	.29
GLOSS	SARY	.30
APPEN	IDIX A	.35
APPEN	IDIX B	.37
	IDIX C	
APPEN	IDIX D	.42
APPEN	IDIX E	.43
INDEX		44