INTRODUCTION

This Specification has been developed by the Crane Manufacturers Association of America, Inc. (CMAA), an organization of leading electric overhead traveling crane manufacturers in the United States, for the purpose of promoting standardization and providing a basis for equipment selection. The use of this Specification should not limit the ingenuity of the individual manufacturer but should provide guidelines for technical procedure.

In addition to Specifications, the publication contains information which could be helpful to the purchasers and users of cranes and to the engineering and architectural professions. While much of this information must be of a general nature, it may be checked with individual manufacturers, and comparisons may be made, leading to the selection of the proper equipment.

These Specifications consist of eight Sections, as follows:

70–1 General Specifications
70–2 Crane Service Classification
70–3 Structural Design
70–4 Mechanical Design
70–5 Electrical Equipment
70–6 Inquiry Data Sheet and Speeds
70–7 Glossary
70–8 Index

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SUMMARY OF CHANGES SINCE THE 2010 REVISION OF SPECIFICATION #70

Added the “CMAA Specification Interpretation Request Procedure” on page 5.

Section 1.4 & Table 1.4.2-1 .......... Revised to specifically address crane runways
Section 1.4.6 ............................... Lc defined for cantilevered runway Sections.
Section 1.5.8 ............................... New Section for Runway Current Collectors
Section 1.5.9 ............................... New Section for Runway Grounding Conductor
Section 3.3.2.2.1 .......................... Revised Section for operational wind loading.
Sections 3.3.2.6, 3.7 & 3.8.3 ........ Reference to stress levels removed.
Table 3.4.7-2A ........................... Revised the Table to specify types of testing required for certain weld types.
Figure 3.4.7-2B ........................... Updated
Section 3.4.8.3 ........................... Revised design factor equations
Section 3.5.1 ............................... Revised Section for proportions for welded box girders.
Section 3.5.4.1 ........................... Revised to include errata issued for 2010 edition.
Section 3.5.5.3 ........................... Revised to add lateral deflection limits
Sections 3.7 & 3.8 ......................... Revised to limit stresses to Case 2 Allowables
Section 3.10.2 ............................. Revised wording for bridge rail splices.
Section 3.13.3 ............................. New Section for Gantry Stability.
Sections 4.7.2 & 4.7.3 .................. Revised gear quality classification Section
Section 5.4.7.4 ........................... New Section for Control System Markings
Section 5.5 ................................. Revised Section for Resistors
Section 5.6.17 ............................. New Section for lightning protection.
Section 5.6.18 ............................. New Section for Below-the-Hook Devices
Sections 5.9.3.1-5.9.3.3 ............... New Sections for power circuit limit switches.
Section 5.14 ............................... Revised Section for Inverters
Section 5.16 ............................... New Section for Collision Avoidance
Section 5.17 ............................... New Section for Weigh Scale Systems

Miscellaneous improvements:

- Commentary has been provided to newly added or revised Sections.
- Improved cross-referencing between main Sections.
- Improved formatting.
A request for interpretation of CMAA's specifications is to be designated as an "Action Alert Inquiry."

Only written inquiries about interpretations and the applicability of CMAA Specifications 70, 74 and 78 will be given a response by the CMAA Engineering and Safety Advocacy Workgroup. CMAA does not provide: design guidance, design critique, advice, comments on non-CMAA documents etc. Inquiries of this nature, if received, will be declined.

Send all written requests for interpretation of Specifications 70, 74 and 78, identifying the particular Specification and the Section numbers in question via email to cmaa-info@mhi.org or via Fax to 704-676-1199 to the attention of CMAA.

Interpretation requests must identify the sender by name, title, company name, address and telephone number and be on company letterhead. They must also be specific and concise.

The following is the CMAA procedure for processing and responding to interpretation requests.

1. CMAA assigns an Action Alert Inquiry number to each written inquiry.
2. CMAA immediately forwards the inquiry to the CMAA Engineering Vice President. Based on the nature and substance of the inquiry, the Vice President selects either a non-balloted or balloted response. Non-balloted responses generally will be selected for simple obvious replies and for inquiries to be declined. Inquiries for interpretation of CMAA Specifications 70, 74 and 78 will be balloted.
3. Response time for inquiries typically range from one week to one month, if balloted.

This Specification is accompanied by explanatory commentaries.

The commentaries in this Specification are not a part of the Specification and do not constitute a formal interpretation of the Specification (which can be obtained only through requests as indicated above). The commentaries, therefore, solely reflect the personal opinions of the editor or other contributors and do not necessarily represent the official position of CMAA or its technical committees.
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