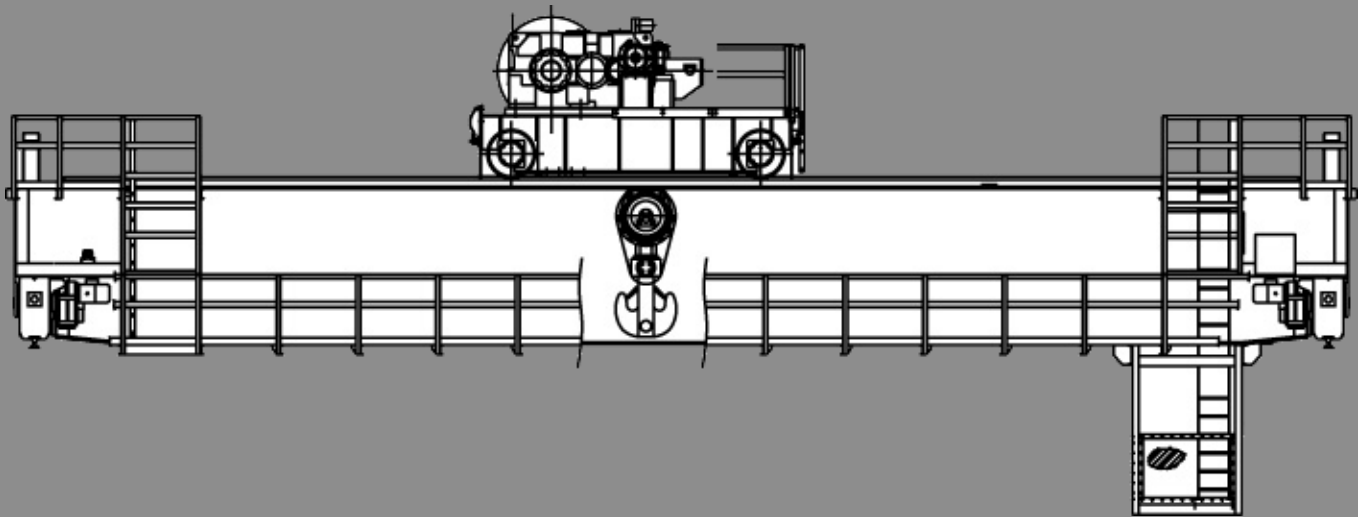


**Specifications for Top Running Bridge & Gantry Type  
Multiple Girder Electric Overhead Traveling Cranes**

Prepared by  
The Crane Manufacturers Association  
of America, Inc.

**70**



**CMAA Specification #70, Revised 2015  
Supersedes Specification #70, Revised 2010**



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**CMAA SPECIFICATION NO. 70-2015  
SPECIFICATIONS FOR TOP RUNNING BRIDGE AND GANTRY TYPE  
MULTIPLE GIRDER ELECTRIC OVERHEAD TRAVELING CRANES**

**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 .....  $L_r$  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.

## CMAA SPECIFICATION INTERPRETATION REQUEST PROCEDURE

A request for interpretation of CMAA's specifications is to be designated as an "Action Alert Inquiry."

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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](mailto:cmaa-info@mhi.org) or via Fax to 704-676-1199 to the attention of CMAA.

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1. CMAA assigns an Action Alert Inquiry number to each written inquiry.
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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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