



2600SEG132 SAFETY STANDARD FOR RIGGING

1.0 PURPOSE

To establish the safety guidelines related to lifting works and the equipment and rigging utilized for those works.

2.0 BACKGROUND

Not applicable.

3.0 SCOPE

This standard applies to all Panama Canal Authority (ACP) employees, contractors, and third parties that perform works or activities in installations or areas under ACP responsibility.

4.0 LEGAL FOUNDATION

This standard is based upon Agreement No. 12 of the Board of Directors of the ACP, Regulation on Risk Control and Occupational Health, Chapter 1, Article 3.

5.0 DEFINITIONS

For the effects of this standard, the following definitions are established:

- 5.1** Static load: Load resulting from a force or load that is applied constantly.
- 5.2** Dynamic load: Force resulting from the sudden application of a force, be it from pulls, impacts or sudden movements of a static load. This load increases the static load considerably.
- 5.3** Work load: Mass or maximum force that a rig can support in a particular application.
- 5.4** Break-up load: The load or average force at which the rig fails or can no longer hold the load.
- 5.5** Critical load: Load or force equal to or greater than 70 % the capacity of the rig.
- 5.6** Allowable load capacity: Maximum weight that can be lifted by the rigging equipment according to the manufacturer's specifications.
- 5.7** Competent personnel: Personnel with the skills, experience, and knowledge necessary to inspect and repair rigging equipment.
- 5.8** User: Personnel with the skills, experience, and necessary knowledge to determine if the rigging equipment is in conditions that guarantee safety during the performance of lifting works using rigs.

6.0 GENERAL

- 6.1** All rigging equipments and tools shall only be used by trained and authorized users.
- 6.2** Critical load lifts shall be planned, supervised, and documented by competent personnel.
- 6.3** All the lifts shall be performed with rigging equipment that is adequate for the work to be carried out and whose capacity is within the allowable load capacity.



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6.4 All equipments and rigs shall be inspected by the user responsible for the work before each work. Any equipment that shows damages, defects, failures in safety devices or any other condition that may make its use unsafe shall be identified as defective, put out of service and sent to competent personnel for inspection and repair.

6.5 All rigging equipments and tools that do not meet the minimum safety requirements according to the codes (see reference), and the manufacturer's operations handbook shall be identified and put out of service permanently.

6.6 The inventory of all the equipment shall be updated. Annually all of the equipments shall be inspected by competent personnel. These inspections shall be documented.

7.0 RESPONSIBILITIES

7.1 Crane subcommittee

7.1.1 To advise the divisions and interested parties on the correct interpretation of the codes and procedures related to the use of rigging equipment and tools to lift loads.

7.1.2 To serve as technical advisor to the Safety and Industrial Hygiene Unit (RSHH) in topics related with the practices of safe lifting work.

7.2 Supervisors and managers of the units that have lifting equipments and rigs

7.2.1 To implement the guidelines of this standard.

7.2.2 To provide adequate training to users and competent personnel.

7.2.3 Contractors shall provide training for their workers.

7.3 Safety and Industrial Hygiene Unit

7.3.1 Follow up on the implementation of the guidelines contained in this standard.

8.0 CONSULTS

All information or clarification about the contents or application of this standard should be requested in writing to RSHH.

9.0 EXCEPTIONS

Temporary deviations or exceptions to compliance with this standard must be requested in writing from RSHH.

10.0 DURATION

This standard is valid until it is modified or revised.

11.0 REFERENCES

11.1 Safety Standard ANSI B30.2, "Safety Code for Overhead and Gantry Cranes". American National Standards Institute.



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- 11.2 Safety Standard ASME B30.9 “Slings”. American Society of Mechanical Engineers.
- 11.3 Safety Standard ASME B30.20, “Below the hook lifting devices”.
- 11.4 Safety Standard ANSI B30.6, “Safety Code for Derricks”. American National Standards Institute.
- 11.5 “Rigging Manual” Construction Safety Association of Ontario. 1975.
- 11.6 “IPT’s Crane and Rigging Training Manual”. Ronald G. Garby.