

Fact Sheet No. 1: Proper Inspection and Maintenance of Overhead Cranes and Hoists

This is the first in a series of Fact Sheets developed by the Crane, Hoist and Monorail Alliance concerning safe application and operation of overhead material handling equipment.

Why is overhead crane and hoist inspection important?

Crane inspection and maintenance are essential to safe equipment operation. Operator safety can be improved and operator injury can be avoided if the equipment is properly inspected and maintained. In addition, manufacturing productivity can also be improved with scheduled maintenance to maintain proper equipment functionality and to help avert breakdown repairs. Failure to complete overhead crane and hoist inspections and proper equipment maintenance could lead to serious injury, death or destruction of property.

What are the standards for overhead hoist and crane inspection and maintenance?

The standards and reference manuals for the required proper inspection of overhead cranes and hoists are:

- 1) Occupational Safety & Health Administration – 29 CFR Part 1910.179 Overhead and Gantry Cranes
- 2) The American Society of Mechanical Engineers – B30.2 - 2005 Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist); B30.16 - 2003 Overhead Hoists (Underhung); B30.17 - 2003 Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)
- 3) Canadian Standards Association – CAN/CSA B167-96 (R2002) Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists and Trolleys.
- 4) Crane Manufacturers Association of America – CMAA Specification 78 - Standards and Guidelines for Professional Services Performed on Overhead Traveling Cranes and Associated Hoisting Equipment
- 5) State and local codes.
- 6) Manufacturers' Operations Manual.

These standards and reference manuals outline the frequency of inspection, the items that shall be inspected, who shall conduct the inspection, and how to document the inspection.

How can you protect your workers?

You can protect your workers by:

- Implementing a written and documented crane and hoist inspection and maintenance program.
- Training the operator to perform the required pre-shift inspection of the equipment.
- Training the operator to properly use the equipment.
- Ensuring that the operator has read the manufacturers' operation manuals.

What do employees/operators need to know?

- Proper pre-shift inspection techniques and items to be inspected. See Safety Tips Sheet No. 2.
- Proper use of the equipment.
- Contents of manufacturers' operations manual.
- Lock out/Tag out procedure.
- How to document the inspections.
- Who to contact in the event that a product requires service or repair.