Overhead Hoist (Underhung) Inspection – Quick Tips



Overhead hoists commonly are found in many industries. They can be made with chain or wire rope and can be operated manually or with electric or air power. These units can be an essential part of a production line used to load raw materials or move finished goods. As vital as they can be to the production line, they are often some of the more neglected equipment in a facility, many times only getting attention after they fail or are no longer functioning. Preventive maintenance and frequent overhead hoist inspection can prevent costly downtime and potentially dangerous situations.



Overhead Hoist Regulations

Overhead hoist inspection and testing requirements, specifically for underhung overhead hoists, are not found in an OSHA standard. Some relevant information can be found in general industry standard 29 CFR 1910.179, which addresses overhead and gantry cranes. Other general requirements can be found in construction standard 1926.554. The standard that most specifically addresses the requirements of overhead hoists is an ASME/ANSI consensus standard, B30.16 for overhead hoists (underhung). This standard is part of the B30 series of standards from the American Society of Mechanical Engineers (ASME) on cableways,

cranes, derricks, hoists, hooks, jacks and slings. Some of the highlights of the inspection requirements from the B30.16 standard are outlined below. The complete standard is available for purchase directly from ASME.

Definitions

Abnormal operating conditions:

Environmental conditions that are unfavorable, harmful or detrimental to the operation of a hoist, such as excessively high or low ambient temperatures, exposure to weather, corrosive fumes, dust-laden or moisture-laden atmospheres and hazardous locations.

Designated person:

A person selected or assigned by the employer or the employer's representative as to perform specific duties.

Heavy service:

Service that involves operation within the rated load limit, which exceeds normal service.

Normal service:

Service that involves operation with randomly distributed loads within the rated load limit or uniform loads less than 65% of the rated load for not more than 15% of the time for manually operated hoists and 25% of the time for electric or air-powered hoists.

Severe service:

Service that involves normal or heavy service with abnormal operating conditions.

Overhead Hoist Inspection Requirements

A designated person should inspect hoists before their initial use and on regular intervals to verify compliance with ASME/ANSI B30.16. The specific inspection requirements are found in Table 1 and Table 2 of the B30.16 standard, which are reprinted below with written permission from ASME. The inspections are classified into frequent inspections that do not require documentation and periodic inspections that require documentation. The interval between inspections depends on the service of the hoist. The owner's manual specific to the hoist is another good source for inspection and maintenance requirements and should be based on the requirements of this standard.

Commonly Asked Questions

Q: Does the OSHA standard 1910.179 on overhead and gantry cranes apply to overhead wire and chain hoists?

A: Not specifically. Many of the requirements are the same, but underhung hoists are specifically addressed in the consensus standard ANSI/ASME B30.16. For more information, see Quick Tips #107: Overhead Crane Safety 29 CFR 1910.179.

Q: Can OSHA cite me for not following a consensus standard?

A: Yes. Industry consensus standards might be evidence that a hazard is recognized and there is a feasible means of correcting such a hazard. If you do not follow the consensus standard, it is possible to be cited under the general duty clause.

Sources

ASME/ANSI B30.16-2003
29 CFR 1910.179
29 CFR 1926.554

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