



**HOW TO CHOOSE YOUR OVERHEAD
CRANE INSPECTION COMPANY**

Introduction

The safety and performance of your overhead crane is vital to your facility -- and that is why choosing the RIGHT overhead crane inspection company is a critical decision.

In this e-book, we start out by reviewing the importance and benefits of regular inspection. Next, talk about what an inspection involves followed by what a quality inspection and report should look like, including who is qualified to perform inspections. We end by listing what we consider the minimum requirements when looking for an overhead crane inspection company.



Why Do I Need to Have My Overhead Cranes Inspected?

One of the most obvious answers to the question of why your overhead cranes need to be inspected is safe operation. You want to keep your employees safe from injury, the materials you are moving undamaged, and your equipment in good operating condition.

To that end, OSHA (Occupational Safety and Health Administration) developed OSHA 29 Code of Federal Regulations (CFR) 1910.179 Overhead and Gantry Cranes. This code includes ANSI B30.2.0-1967, the ANSI (American National Standard Institute) / ASME (American Society of Mechanical Engineers) Safety Code for Overhead and Gantry Cranes.



What are the Benefits of Regular Inspection?

Let's take a minute to look at the benefits of having regular overhead crane inspections performed.

- Accident prevention
- Safety of employees
- Reduced downtime
- Supports preventative, scheduled maintenance
- Better, more reliable performance
- Extension of the crane's useful life
- Reduction in overhead costs related to
- Fewer interruptions to product

These benefits, however, only pay off when you select the right overhead crane inspection company, and the inspections are performed by qualified technicians.



What Should a Thorough Inspection Look Like?

Worn or Damaged Components

When your overhead crane is inspected, there are several things that the inspector will be looking for, including obvious things like damaged parts. Here are some components that are specifically examined for damage or wear:

- Shafts, gears, rollers, and pins

- Ratchets and pawls
- Bearings
- Locking devices
- Clamping devices
- Sheaves and drums
- Chain drive sprockets
- Load hooks and latches
- Brake system
- Structural connections
- Runway support
- Rivets, bolts, and welds

Lubrication

Lubrication is also an important part of any inspection. For example, the condition of the load chains and wire rope are also assessed, and both will be lubricated. The system grease levels and oil levels will also be checked and replenished as needed.

Operational and Load Testing

Operational and load tests may also be mandatory. Keep in mind that there are certain issues that are only revealed when the overhead crane is loaded and detecting them in an inspection is vital to safety and correct operation. This is especially true when a new crane has been installed or a crane has been altered, which is why OSHA requires load tests in such situations.

Load tests include the following:

- Bridge travel
- Trolley travel
- Hoisting
- Lowering

- Locking and safety devices
- Limit switches
- Trip setting of hoist-limit devices
- Actuating mechanism of the upper-limit device

There are also rated load tests that involve loads between 100% and 125% of the overhead cranes rated load capacity.

Electrical and Control Systems

As you already know, overhead crane systems are not just mechanical -- there are vital electrical and control systems involved in their safe operation, as well. Inspectors will perform an electrical control review that includes components such as transformers, brake coils, limit switches, control systems.



What Should an Inspection Report Include?

After the inspection has been performed, the key deliverable from an overhead crane inspection is the report that should include a detailed list of all items not found in compliance with OSHA standards and the results of operational and load testing.

However, a quality inspection company will also provide you with information on what needs to be done to be in compliance. This can include adjustments, repairs, and part replacements along with suggestions for things like improved maintenance and spare parts inventory.



Who is Qualified to Inspect Your Overhead Cranes?

Not just anyone is qualified to perform overhead crane inspections. In fact, the requirements involved are extensive.

General Crane Inspector Requirements

At minimum, a crane inspector should have 2,000 field hours of experience related to the servicing, maintaining, modifying, repairing, and functional testing of cranes and hoist equipment. An inspector should also have formal training in certain areas of overhead cranes that include:

- Thorough knowledge of crane and hoist terminology
- Safe operating practices of cranes and hoists
- Local, state, and federal codes
- Design and safety codes

In addition, crane inspectors should also be able to document inspection procedures and write inspection reports.

Crane Inspector Requirements

There are several programs through which a technician can obtain certification, including:

- NCCCO (National Commission for the Certification of Crane Operators)
- CMMA (Crane Manufacturers Association of America, Inc.)
- CMCO (Columbus McKinnon Corporation)
- CCAA (Crane Certification Association of America)
- Crane Institute of America

To get a good idea of what is involved, let's look at the NCCCO requirements. NCCCO provides crane inspector certifications that include a host of requirements, beginning with eligibility to take the certification test. An individual must have five years of experience that includes duties related to being all of the following:

- Crane operator
- Crane shop foreman
- Crane mechanic or technician
- Crane inspector

This means a certified crane inspector must have experience in just about every aspect of overhead cranes. Now, in some instances, education can take the place of some requirements on the order of two years of education for one year of experience. In that case, the individual must have had courses in subjects such as physics, engineering, construction technology, applied science in non-destructive testing, or applied mathematics. Technical courses in welding technology or heavy equipment mechanic or technician may also apply.



What Should I Look for in a Crane Inspection Company?

Certified Crane Inspectors

This one should be obvious, but we will include it for the sake of completeness: you need an overhead crane inspection company that knows the OSHA requirements and regulations thoroughly. And it should go without saying that the company must have certified crane inspectors on their team.

Extensive Experience with Cranes

You should look for an overhead crane company that has an extensive knowledge of cranes that includes:

- Design
- Installation
- Inspection
- Testing (including load tests, non-destructive testing, and dye penetrant testing)
- Electrification
- Controls
- Laser alignment
- Repair
- Modification
- Predictive maintenance

These services indicate the knowledge and experience the company has with every facet of overhead cranes.

Factory-Trained Technicians

An excellent sign of a good overhead crane inspection company is having factory-trained technicians on staff. This indicates in-depth knowledge of overhead cranes that includes not just safe operation but insight into the structural aspects, electrification, and controls.

Warranty Repairs

A crane inspection company should include, among its services, warranty repairs. That points to the training and quality of the repairs they perform, as well as a strong relationship with major overhead crane companies. If a company trusts the technicians to perform warranty repairs, that means they have thoroughly vetted the repair and maintenance practices of the technicians.

Electronic Documentation

It is extremely important that inspections, repairs, and maintenance for your overhead crane be documented and accessible. You should look for an overhead crane inspection service that includes a technology platform for this purpose and supports customization of the different cranes in your facility. Keep in mind that this not only helps you demonstrate compliance but can also aid in pinpointing recurrent issues with your equipment and better troubleshoot them.

Honesty and Committed to Safety

You also want an overhead crane inspection company that is committed to safety and will not cut corners, miss major issues, or “fudge” the numbers so your crane looks like it meets requirements. One way to see how committed a company is to safety is to check whether they offer services like operator safety training.

Summary

So ... what should you look for in an overhead crane inspection company?

- Certified crane inspectors
- Extensive experience
- Factory-trained technicians
- Warranty repairs
- Electronic documentation
- Honesty and commitment to safety

If your current inspection company does not check of all these boxes, then perhaps it's time to find a new one.

Hi-Speed Industrial Service

The safety and performance of your overhead cranes is critical, and that is why we'd like to recommend Hi-Speed Industrial Services as the right crane inspection company for you.

- On our team, we have certified crane inspectors and factory-trained technicians that have broad experience in all major brands of cranes
- Our inspections fully comply with OSHA 1910.179 and ASME/ANSI B30.2
- We are qualified to perform warranty repairs, and hold Master Distributor status for Harrington and Columbus-McKinnon products and serve as a distributor for most major manufacturers
- We have a technology platform to provide organized, accessible, detailed documentation for maintenance, repairs, modifications, and inspections that can be customized to meet the needs of your facility and its individual cranes
- You can count on our inspections and reports to be thorough and honest, with no corners cut
- We provide you with operator training with an emphasis on safety

When you choose Hi-Speed Industrial as your overhead crane inspection company, you can depend on us to make sure your cranes are safe to use and meet all local, state, and federal guidelines. Let us give you peace of mind when it comes to your overhead cranes -- contact us today!

Sources

OSHA 1910.179 - Overhead and gantry cranes

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.179>

NCCCO Crane Inspector Certification

<https://www.nccco.org/nccco/certifications/crane-inspector>

CMMA Certification No. 78

<https://www.mhi.org/downloads/industrygroups/cmaa/specification>