

CRANE & HOIST SAFETY SERIES:



# Benefits of Preventative Maintenance





While proper maintenance is important for any equipment to support smooth operation and minimize repair costs, scheduling maintenance for your cranes and other lifting or material handling equipment is vital to ensure safety in your operation. The team at American Crane & Equipment Corporation (ACECO), an industry-leading supplier of top-quality cranes, material handling solutions, and smart crane technology, understands the critical applications of our equipment, which is why we offer comprehensive preventative maintenance services to proactively address any current or potential component and regulatory compliance issues.

In this third installment of our Crane & Hoist Safety Series, we'll provide an introduction to the topic of preventative maintenance for cranes and related equipment, details on why it's important and the main benefits, and the range of maintenance and evaluation services ACECO offers to keep your equipment running.

# Introduction to Preventative Maintenance for Material Handling Equipment

Businesses that don't have a routine maintenance program in place open themselves up to unexpected breakdowns, emergency maintenance, and expensive repair fees. If you're unable to get a part you need right away, the unplanned downtime will cost your business in missed deadlines, decreased customer confidence, and lost sales, as well.

An effective preventative maintenance plan can help identify potential issues before they interfere with production, negatively impact revenue, and compromise operator safety. Such maintenance is also imperative to avoid expensive Occupational Safety and Health Administration (OSHA) violations on, for example, cleanroom equipment like cleanroom cranes. Even when the worst-case scenario doesn't occur, keeping to a regular maintenance schedule can support peak efficiency and optimal performance in your stainless steel equipment and more.

ACECO offers round-the-clock availability for field repairs and service should the worst happen. However, our comprehensive preventative maintenance program addresses your specific equipment needs while developing a customized plan based on your unique facility and operations, all to safeguard you against equipment failure.



## Upgrading, Maintaining, & Rebuilding

Preventative maintenance should occur at regularly scheduled intervals to support efficient operations. An effective preventative maintenance plan includes proactively ordering any necessary replacement parts and lubricating or adjusting equipment per the manufacturer's guidelines to prevent unplanned downtime, limit component wear, and maintain equipment performance.

Importantly, periodic checks also allow you to identify and address any areas of concern before they become significant problems that cut into production time and reduce the lifespan of your crane. Safety requirements are another factor, as you may need to upgrade or rebuild equipment to meet the most recent safety standards for your industry.

Equipment parts that tend to require upgrades include:

- Air chain hoists
- Below-the-hook attachments
- Brake assemblies
- Electric and wire rope hoists
- Hoist drums
- Wheel assemblies

## Elements of Preventative Maintenance

Working with a poorly maintained crane can prove catastrophic. To ensure that your equipment is operating at peak performance and to maintain proper safety in your workspace, the ideal preventative maintenance plan includes the following elements:

- Inspections to verify the state of crane parts, confirming there's no damage to important components like the hook, connections, and chains
- Equipment alignment checks to avoid improper tension and lean in your crane
- Period system inspections (hydraulics and air)
- Wheel replacements, as needed

# Three Benefits of Preventative Maintenance

The three primary advantages that preventative maintenance will offer your business and equipment are:

## Safety

Periodic maintenance and inspections are the best way for your operation to maintain compliance with all applicable safety laws and standards. Additionally, it allows you to better ensure the safety of your workers and significantly reduce the risk of job site injuries for your staff.



## Enhanced equipment life

When even a small component within your crane malfunctions, it can impact larger parts and systems and ultimately result in significant damage, not to mention performance issues. Preventative maintenance helps you pinpoint minor problems before they have the chance to cause widespread harm, supporting longer-lasting components.

## Cost-effectiveness

With scheduled maintenance checks and lasting equipment come the added benefits of reduced repair needs and unscheduled downtime, which would otherwise be quite costly for your operation.



# Insight for Preventative Maintenance: Smart Technology & MHIoT

Advancements in smart technology have revolutionized operators' ability to monitor the health of lifting and material handling equipment, bringing preventative maintenance to a whole new level. For example, when your machinery is experiencing unusually high temperatures or vibration levels, smart systems will trigger an alarm to notify operators that something is not working correctly.

ACECO specializes in advanced smart technology, and our Innovation Lab continually produces new, cutting-edge technology for developing smart cranes. We have implemented several initiatives, including our new line of Smart Crane IoT (Internet of Things) Device and Machine Health IoT (MHIoT) products. Our vision is to supply small and medium businesses with accessible IoT, especially those once excluded by the high initial investment costs and operational complexity of current offerings.

The ACECO Smart Crane System IoT and Machine Health IoT Device primarily focus on delivering data that brings practical insight and real value to our customers. We have a philosophy of keeping complexity and costs to a minimum while providing exceptional power, user-friendliness, and performance.

# Preventative Maintenance Services We Offer at American Crane

ACECO's team of qualified, knowledgeable technicians offers full in-the-field support, making sure you're covered for everything from scheduled preventative maintenance to unplanned or emergency needs. Once our engineers have inspected your equipment on-site and have a diagnosis, we return to our facility to fabricate your hoist solution in-house, or refurbish your current components to maximize performance. We also maintain an inventory of spare components for a wide variety of lifting equipment to provide you with swift replacements for minimized downtime and profit losses.

As part of our comprehensive preventative maintenance services, we provide:



**OSHA-compliant inspections.** Our Columbus McKinnon (CMCO)-certified crane inspectors carry out OSHA-compliant crane and hoist inspections to ensure equipment safety and functionality.



**Crane evaluation services.** ACECO will perform an in-depth evaluation to determine the current state of your crane and its components, which includes:

- **Equipment evaluation services.** We focus our equipment evaluations on identifying ways to enhance safety, reliability, performance, and capacity in your equipment.
- **Condition report.** Our report will outline and document any areas of concern, with a dedicated focus on correcting outstanding OSHA violations.
- **Proposal, cost estimate, and scheduling.** The condition report will include a proposal, with ACECO's action item recommendations for compliance and an accompanying cost estimate. Our team will review this proposal with you and, once we've agreed upon an action plan, we will schedule a service visit.
- **Work completion.** As part of an implementation plan, we will detail the scope of the work, how we will go about these tasks, and both client and ACECO's responsibilities. Finally, our experienced team will fix your crane, followed by full testing to recertify your equipment.



**Crane retrofitting.** After the crane evaluation stage, our engineering team can also offer suggestions for crane retrofitting. This can be an efficient, cost-effective alternative to equipment upgrades and replacements while still returning your crane to reliable, optimized functionality.

## Choose American Crane

Preventative maintenance for your hoists and cranes is the best way to ensure safety and reliably high performance in your equipment while minimizing the risk of part failure, unscheduled downtime, and unexpected costs.

ACECO's design, engineering, production, testing, and field service capabilities, backed by over 50 years of company experience, aim to make your lives easier. We're focused on continuous improvement, striving for accessible solutions and automation and smart technology integration to get the most out of your equipment. For standard products, visit our [online store](#) of more than 40,000 material handling and lifting components, or [request a quote](#) to learn about our customization capabilities.

For more information on our preventative maintenance program or to schedule an appointment, [contact us](#) today.







For more than 50 years, American Crane & Equipment Corporation has been a trusted manufacturer of cranes, hoists, and other material handling equipment, along with a variety of parts and components for standard, custom, and nuclear applications.

At ACECO, we understand the critical nature of the equipment we build. That's why we manufacture quality hoists, cranes, and related material handling equipment in-house with an emphasis on safety, innovation, scalability, and cost-efficiency. Contact us today for more information on our preventative maintenance program or to get your project started!

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