

ACT

The magazine for the crane, lifting and transport industry

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INTERVIEW
Wolff's
Dr. Peter
Schiefer

INDUSTRY FORUM
Auctions

PROJECT DIGEST
Knuckleboom
projects



Official domestic
magazine of
the SC&RA

The final rule!

**OSHA clears hurdles for crane
operator certification mandate**

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And we're not stopping there. Come and see how we're continuing to rethink innovation at Bauma 2019.



DEMAG
BY TEREX

 **TEREX**

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The places you will go



As the editor of *American Cranes & Transport*, I've travelled to many interesting places and seen some pretty amazing things to do with cranes, rigging and specialized transportation. But back in November, I found myself in a pretty crazy place – on the 22nd floor of a building with a huge Favelle Favco MK440E tower crane. Being on top of a building seemed crazy enough, but getting there was the trip.

I met TES Inc.'s Tom Guzzi and U.S. Crane & Rigging Owner Tom Auringer at the corner of Hoyt and Fulton Streets in downtown Brooklyn. It was a clear, cold and windy day. As I'm craning my neck to see the crane, Tom Auringer asked if I was good to go up. Before I could say no, I had on a hard hat and was stepping into a clanky, cage-like elevator heading to the top.

Once we got as far as the elevator would go, we stepped out into the 20th floor and took "the stairs" up to the crane. The stairs were actually makeshift ladders the workers had built. Carefully, one step at a time, I ascended both the ladders. At last I was on top of the building with the crane that was secured to a tower that rose from the interior of the structure. For the rest of the story see our Site Report Lifting on page 40.

January is the month we focus on safety, training and certification. With OSHA recently publishing the Crane Operator Certification Final Rule, it was timely that we could report on the implications of this new mandate and review some of the relevant trends and issues. Industry Focus: Safety, Training and Certification features three articles, starting on page 22.

When I was in Brooklyn, I also caught up with Dr. Peter Schiefer, CEO of Wolffkran. An electrical engineer by training and with a long list of business successes on his resume, Schiefer has fallen in love with the crane industry. The Interview starts on page 16.

This issue also features our Industry Forum: Auctions and a Project Digest of jobs using knuckleboom cranes.

And finally, Happy New Year. Make a resolution to drop me a line about your projects and people. Let's stay closer in touch in 2019!

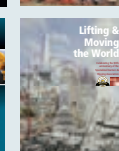
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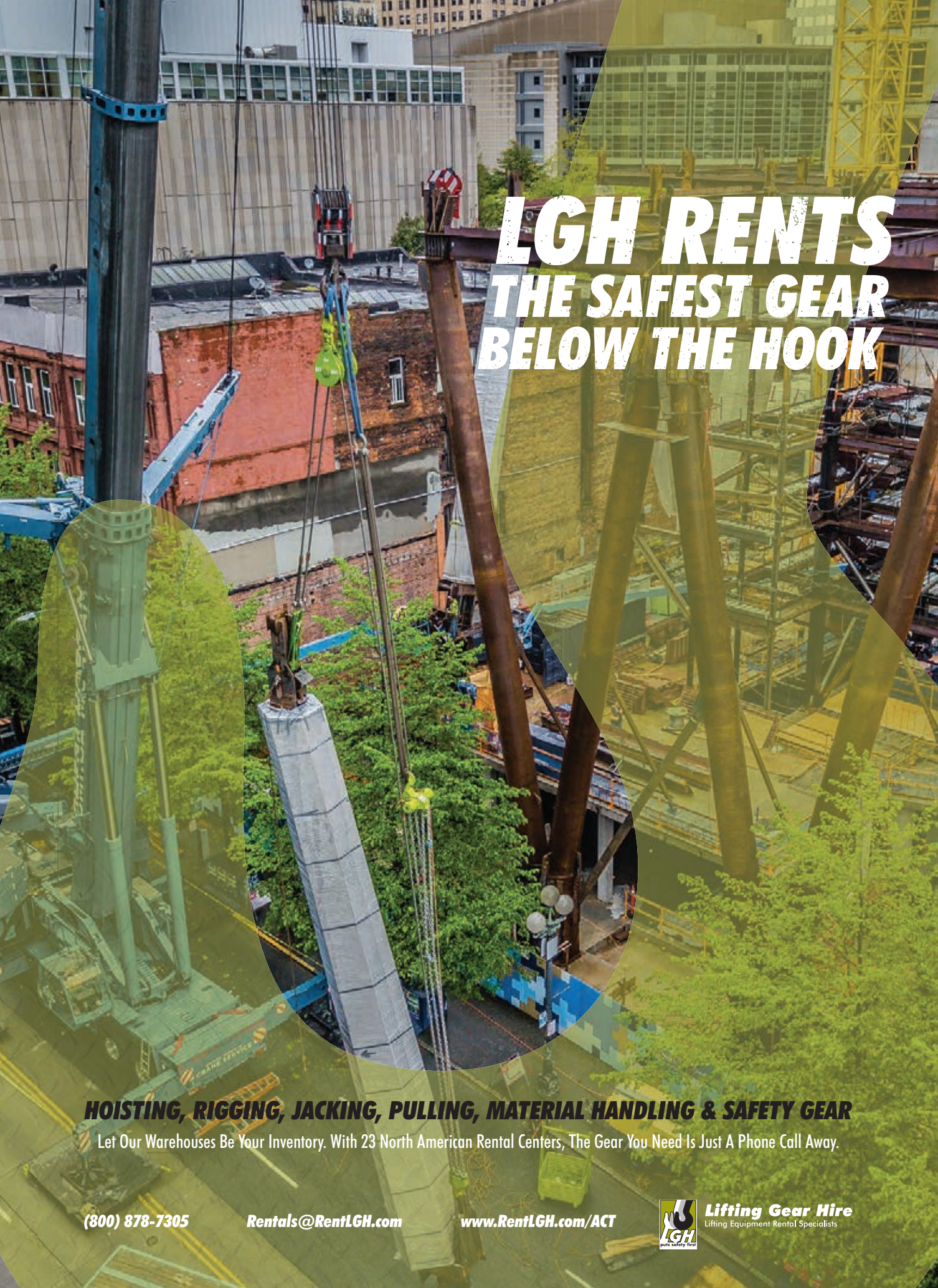
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An aerial photograph of a construction site in an urban area. A large blue crane is lifting a tall, grey concrete column. The background shows various city buildings, including a red brick one and a modern glass-fronted one. The scene is partially obscured by a large, semi-transparent green circular graphic.

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See our Industry Focus starting on page 22 about implications, trends and issues related to the OSHA Final Rule on Crane Operator Certification.



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Even a small increase in wind speed can severely threaten the safe performance of a tower crane.

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Start off the year with a commitment to continually improve safety.



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■ WireCo WorldGroup has opened a distribution center in Portland, OR. The new facility is strategically located to handle the wire rope needs of customers across the northwestern United States.



■ Crane rental company Clarence's Crane Rental of Altamont, NY, has extended its fleet with the purchase of a new 45-ton capacity Manitex TC450 telescopic truck-mounted crane. Clarence's Crane Rental bought the crane through Florida-based new and used crane dealership Select Crane Sales.

■ Manitex International has announced the expansion of its boom truck and articulating crane distribution network to include Southwest Products, which has its manufacturing headquarters in Surprise, AZ. Southwest Products joins the growing Manitex network with its four locations in California and Arizona.

Manitowoc launches largest Potain flat top

Manitowoc rolled out the Potain MCT 565, its largest flat top crane, at the Bauma China 2018 exhibition in Shanghai in late November 2018. The company invited customers, dealers, end-users and media to an event at the trade fair to present the crane. The following day guests were welcomed to the Manitowoc factory in Zhangjiagang where the MCT 565 was shown fully assembled, complete with its full 80-meter jib.

Francois Rotat, product manager for Potain tower cranes, said the new model gives customers lower total cost of ownership and allows

them to take on all types of new projects.

"The first topless cranes from our Zhangjiagang factory in China launched in 2012 and are now a huge success," Rotat said. "As acceptance grows, it's natural we extend the concept into new markets. The MCT 565 offers the benefits of topless cranes on significantly larger projects. Asia-Pacific, Africa, Latin America, the Middle East, Russia and other CIS countries have ambitious construction programs and cranes like the Potain MCT 565 will help those regions meet their goals."

The MCT 565 proved a strong attraction at the show, not only for its size but also for the opportunities it presents. Its maximum load moment of 550 tonne-meters is a significant step up

Manitowoc hosted a customer event at its Zhangjiagang factory.



The Potain MCT 565 is the manufacturer's largest flat top model to date.

for the company. Jib length configurations are from 30 to 80 meters in 5-meter increments. At its 80-meter jib end, the MCT 565 can handle 4 tons. Despite its increased size, the new model stays true to the design characteristics of Potain flat top cranes, with easy transport and erection combining with excellent on-site performance, the manufacturer said.



Enerpac launches super lift hydraulic gantry

Enerpac has added the SL100 and SL200 Super Lift hydraulic gantries to its range. These units offer customers a higher capacity gantry on a narrow two-foot track gage, the company said.

"The new models were designed based on the significant growth seen in relevant markets and the need for greater lifting capacities for new applications," said Peter Crisci, product line director for Enerpac's Heavy Lifting Technology product

line. "We continue to evolve and provide new solutions for our customers to meet their needs for the diverse and changing applications."

Enerpac's Super Lift gantries are ideal for manufacturing, rail and general material handling markets. Typical applications involve local transportation and installation of presses, machines, rail cars and compressors. Hydraulic gantries are easy to mobilize and demobilize with high-lifting capacity and accurate load positioning. They also have the ability to operate in confined or limited-access spaces.

Enerpac's SL100 and SL200 hydraulic gantries range from 100 to 200 tons.





SC&RA develops Qualified Operator Evaluation forms

In response to OSHA's Final Rule on crane operator training, certification and evaluation requirements, SC&RA has developed Qualified Operator Evaluation forms for mobile cranes and tower cranes.

OSHA's Final Rule states that employers must, through an evaluation process, ensure operators are qualified to operate the machine to which they are assigned. The final rule allowed employers to rely on previous operator assessments to meet this requirement for operators employed prior to December 10, 2018.

SC&RA strongly encourages companies to not wait until February 2019 to begin evaluating operators.

The forms were developed in conjunction with the Crane & Rigging Group Safety Education & Training and Tower Crane committees. SC&RA's sample Qualified Operator Evaluation form can be found at www.scranet.org.

A1A refines its lift planning software

A1A Software has expanded its 3D Lift Plan crane lift planning program to better facilitate 3D Lift Plan's use as a sales tool, for bid proposals, for crane selection and setup, for lift planning and for documentation.

Users can now use the program to determine which type of crane pads or mats are best for the ground conditions. Ground-bearing calculations can now be made for steel mats and layered mats.

Upgrades include greater control of planning for unique lifting scenarios. For example, overriding the boom angle

when using a load chart with fixed boom angles; establishing one crane in setup mode while simultaneously putting other cranes in normal operation mode for the creation of erection and dismantling plans; and knife-jacking a lattice boom with luffer to verify procedures for lowering long lattice/luffer combos into stowed position.

"We have also utilized WebGL technologies to enable the display of 3D content in Chrome, Firefox and Microsoft Edge web browsers to improve the interface for customers no matter their

preferred browser," said Tawnia Weiss, president of A1A Software. "This flexibility is important because 3D Lift Plan is a cloud-based program, eliminating the need to download and update software to individual computers." ■



A1A's upgrades include better control of planning unique lifting projects.

Comansa upgrades two popular units

The design of new solutions for the 21LC1050 flat-top tower crane, launched in September 2018, allowed

Comansa's R&D team to apply similar innovations to the 21LC660 and 21LC750 models, improving their performance. Both models have increased their maximum load capacity to 55,120, 82,670 and 110,230 pounds. This improvement is achieved by using a compacted wire rope and a lighter trolley-hook set.

A modular counterjib has been added to the 21LC1050, allowing up to six different configurations according

Zoomlion acquires Wilbert

German top slewing tower crane OEM Wilbert will be bought by Chinese construction machinery manufacturer Zoomlion.

According to Wilbert, Zoomlion is looking for access to the European market through the acquisition. Wilbert said it will remain a Germany-based tower crane manufacturer and rental company; however, with the takeover, it hopes to "advance the targeted expansion of the capital-intensive core business in Germany and internationally".

"Zoomlion's acquisition of Wilbert tower cranes is in alignment with Zoomlion's commitment of serving customers and expanding our presence in different market segments," said Matthew Dobbs, Zoomlion director of sales and marketing, North America. "Wilbert is a well-known brand for quality, engineering and customer satisfaction. It blends well into our product portfolio and we are happy to merge them into the Zoomlion family."

to the jib length. The "new" 21LC660 and 21LC750 cranes are now available worldwide and are shipped with the XL-size CUBE cab as standard. ■

Comansa upgraded the maximum load capacity of the 21LC660 and 21LC750 up to 110,230 pounds.





■ Columbus McKinnon Corporation, a leading designer and manufacturer of motion control products, technologies and services for material handling, has added the AS7 electric wire rope hoist as an addition to its advanced hoist product portfolio.



■ Structural Metal Fabricators partnered with WIKA Mobile Control to install the qSCALE I2 load moment indicator on its 10, 15- and 20-ton boom trucks. This system provides the operator with a display of the current load and geometric information, including the actual and allowable load, boom length, boom angle and load radius.

Ed Bell Construction buys new Link-Belt RT

Ed Bell Construction made purchase of a Link-Belt 75-ton 75RT in second quarter 2018 to begin modernizing some of its aging equipment and handle the demands of larger, heavier lifts in modern road and bridge work.

“Getting a bigger, 75-ton crane with basically the same footprint as our older 50-ton rigs gives us better capabilities without retraining our current operators who are all certified up to 75-ton,” said Terry Killingsworth, structures manager at Ed Bell Construction.

Ed Bell Construction was awarded a multi-year contract working on the \$30 million Interstate 20/Center Point Road Interchange project that includes new exit and on ramps and three new bridges, as well as redirection of three miles of two-way frontage roads for improved mobility and safety. The Link-Belt 75RT lifts 6,000-pound bundles of rebar, large concrete form panels, concrete buckets and drainage



Ed Bell Construction made purchase of a Link-Belt 75-ton 75RT in second quarter 2018 to begin modernizing its aging fleet.

culverts along both sides of Interstate 20. Additional job requirements for the 75RT include placing concrete finishers up and off of finished concrete bridge decks, and installing Texas Department of Transportation traffic barriers, weighing 23,000 pounds each, along right-of-ways.

Operator Gabriel Corral explained he likes the tilt cab because it eases the stiffness in his neck from working on high bridge projects all day. Corral finds the crane is smooth and has a nice, quick swing and he has already taken advantage of both boom modes and the fine metering system. ■

Bigge adds Liebherr all-terrain

Bigge Crane and Rigging has expanded its fleet with the addition of a 500-ton capacity Liebherr LTM 1400-7.1. The new all-terrain crane is ideal for petrochemical work, precast girder installation, tower crane erection and dismantling and high reach commercial work. The 7-axle crane is one of the most compact of its class and features active rear-axle steering. The ballast radius can be significantly reduced for use in constricted areas by moving the counterweight.

“We purchased the LTM 1400-7.1 because we are

building the perfect fleet of cranes, and the LTM 1400-7.1 is the best 500-ton class crane available today,” said Joseph Nelms, Bigge vice president. “Liebherr quality and our pursuit of the perfect fleet via best-in-class philosophy, we buy what we think are the best cranes in each category of cranes.”

One of Bigge Crane and Rigging Co.’s recent projects was setting cooling towers atop Adobe Systems in San Jose, CA. Completing the project required a myriad of planning and coordination efforts by the project management team, and

the powerful lifting capacity of the LTM1400-7.1. The 500-ton capacity crane was configured with 184 feet of boom, 161 feet of luffing jib, 220,000 pounds of counterweight and Y-Guy (winged boom support system). Working for a mechanical contractor, Bigge Crane and Rigging set 15,000-pound cooling towers atop the building, lifting them more than 255 feet high at a 135-foot radius. ■

Bigge Crane and Rigging's LTM 1400-7.1 installs cooling towers atop a commercial building in downtown San Jose, CA.





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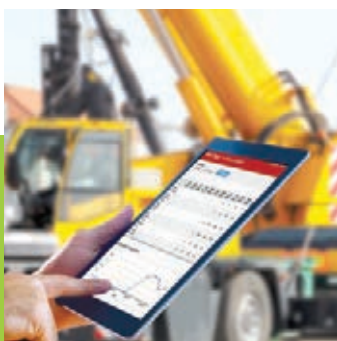
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Usage Data



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Largest Database of Cranes



■ Construction Equipment Magazine named Load King's 60-ton lowboy as one of the Top 100 New Products of 2018. The LK503-605 has a 20-inch loaded deck height and has the ability to add both a 24-inch and 36-inch flip extension on the gooseneck.

Bauma 2019 is more than the world's leading trade show. It's the heart of the construction equipment industry, according to planners.



Ready, set, go! Bauma 2019

Bauma 2019 is expected to feature more exhibitors, more visitors and more opportunities than ever before. The show is set for April 8-14, 2019. Show planners have revealed that the Munich, Germany tradeshow will set a new record with more than 3,500 exhibitors from 55 countries.

"We continue to surpass ourselves – also digitally," said Klaus Dittrich, head of Bauma.

Attendance records are also set to be broken at the world's largest construction equipment tradeshow held every three years. Planners expect 600,000 visitors.

Bauma 2019 focuses on the digitization of the construction industry, and leading global manufacturers present initial technologies.

Whether you are traveling to the fair by plane, train, automobile or with public

transportation, Bauma planners have put together extensive information and research tools to help you plan your trip. For information please go to <https://www.bauma.de/trade-fair/travel-stay/getting-there/>.

All it takes is a few clicks to go online and purchase your personal ticket to Bauma 2019. For information please visit <https://www.bauma.de/visitors/planning-your-visit/>

[purchase-ticket/index.html](https://www.bauma.de/purchase-ticket/index.html).

Ticket prices are substantially less by registering early, ranging from approximately \$27.25 for a day pass to a seven-day ticket for \$70.39, depending on exchange rates. At the fair, day tickets are about \$40 and \$96.50 for a seven-day pass.

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- Lean construction applied – General Motors, Barton Malow and the Arlington Assembly Project
 - Sds2 – technology in the steel erection process
 - Reinforcing market share in a changing rebar industry
 - Esub – getting paid on time
- Building enclosures – three dramatic projects, three examples of success!
- Policies, predictions and programs – American institute of steel construction
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Nervous stock markets have missed out on the usual end of year rally in 2018.

ACT's Heavy Equipment Index (HEI) tracks the performance of eight of America's most significant, publicly-traded construction equipment manufacturers – Astec Industries, Caterpillar, CNH Industrial, Deere & Company, Joy Global, Manitowoc and Terex.

Happy New Year?

As last year drew to a close, stock markets were struggling to achieve the traditional Christmas and New Year rally. In fact, markets were decidedly nervous approaching the end of 2018, with confusion reigning over future trade relations between the U.S. and China.

On the one hand, the tit-for-tat escalation of tariffs in 2018 has been a cause for concern, but the meeting of G20 leaders late November and early December in Buenos Aires, Argentina saw some indications of a thaw in frosty relationships.

The real issue for the markets is the uncertainty around the tariffs issue. When there is clarity and investors have some certainty over what factors are at play in the world, the markets can price these into share prices (be they positive or negative). However, the most difficult thing for the markets to deal with is uncertainty because it leads to guesswork when it comes to pricing investments.

As this month's graph illustrates, markets were particularly volatile in the closing weeks of the year, with no clear direction and some big swings up and down. Having enjoyed such a strong rally over recent months and risen to such stunning highs, the nervousness has been amplified because there is surely a correction if not a prolonged bear market around the corner.

The result for heavy equipment makers has been a narrow net loss in their share prices over the last 12 months. The issue with the shares that make up the ACT Heavy Equipment Index (HEI) is that they are classic cyclical stocks. They rise sharply when the markets pick up but are also prone to sharp declines when sentiment is bad.

So unlike the mainstream indicators, which are up 5 to 10 percent over the same period, the ACT HEI is just underwater.

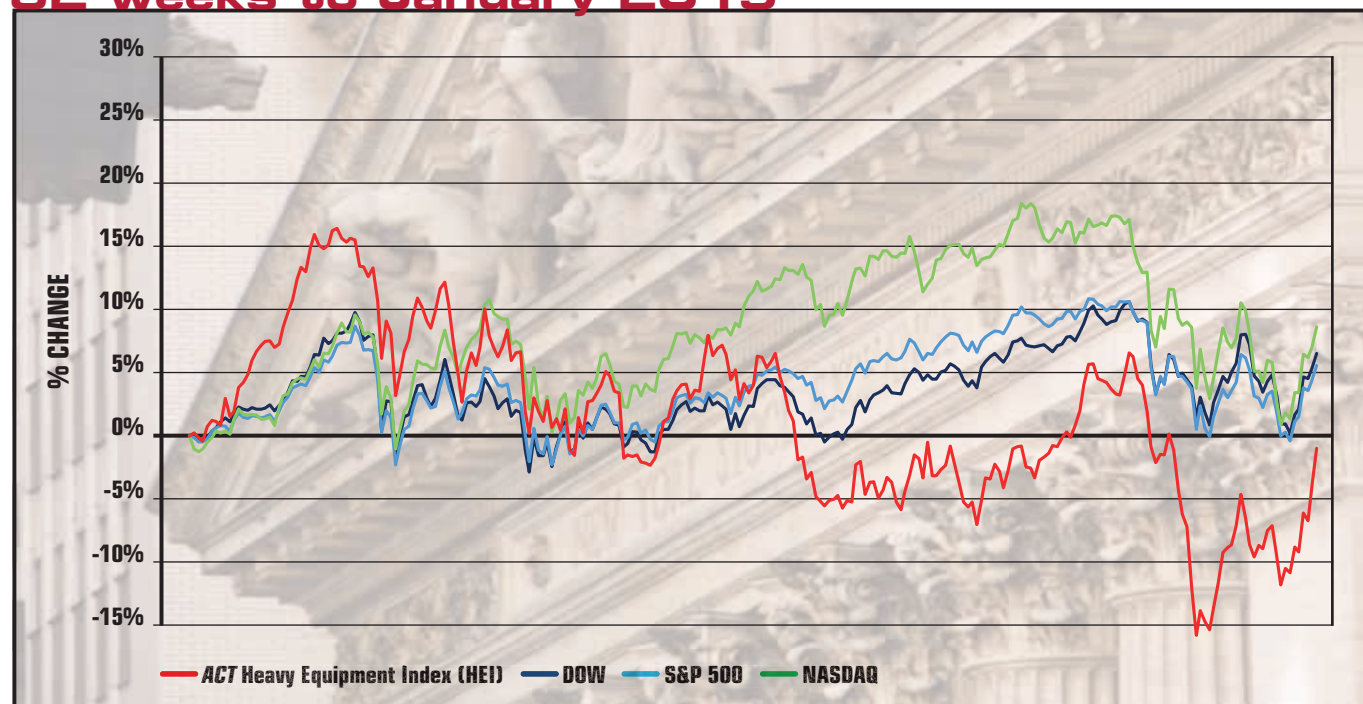
This also reflects the reality of the market for construction

equipment. Specialist forecasters like Off-Highway Research say global equipment volumes in 2018 are at or near their peak. Although the high is expected to be sustained over the medium term, the question for manufacturers is whether they can improve their profits and dividends without growth in end markets?

Clearly investors think not. The main issue seems to be that input costs are rising. Tariffs may be playing a part in that, as are normal inflationary pressures such as rising payroll, energy and materials costs. With demand for equipment not expected to rise in 2019 and beyond, this naturally means profitability will be squeezed.

But this is all based on a string of assumptions and is subject to change. It will be a case of waiting to see how the New Year shapes up and what outlook manufacturers give for 2019 when they publish their next round of results in late January and early February. ■

52 weeks to January 2019



Rigging for wind

Even a small increase in wind speed can severely threaten the safe performance of a tower crane.

Know the wind. It's a simple but profound statement for crane operators. The fact is that wind is the second most common cause for crane accidents worldwide. The American National Standards Institute (ANSI) reported that "between 2000 and 2010, there were 1,125 tower crane accidents reported worldwide, resulting in more than 780 deaths. One of the main culprits behind these tragedies was exposure to wind, which caused 23 percent of all accidents."¹

Wind forces

While being able to track wind speed is important, ANSI stresses, "...the primary concern related to the forces that wind exerts on a tower crane's load is not the speed of the wind, but its pressure. Wind pressure varies as the square of the

Wind is reportedly the second most common cause for tower crane accidents worldwide.

wind speed, so, as wind speed doubles, the wind pressure increases by a factor of four times. This means that a small increase in wind speed can severely threaten the safe performance of a tower crane¹."

So how can an operator effectively and accurately track the atmospheric changes impacting their work environment? One answer may be the TriSonica Mini, a three-dimensional ultrasonic anemometer that can fit in the palm of your hand.

The TriSonica Mini uses ultrasonic measurements to tell users exactly how fast the wind is moving – from the lightest breath to a stormy gale – and in what direction it moves: up, down, front, back or sideways. It also tells the temperature of the air, the compass

heading relative to the device, the moisture borne in the wind, the density of the air and dew point, according to the manufacturer.

Ease of use

While cup-and-vane anemometers come in a variety of sizes, they can suffer the drawbacks of inertia (insensitivity to changes due to mechanical resistance) and wear (bearings and components). With the TriSonica Mini there are no moving parts to wear out or replace, eliminating maintenance issues. The TriSonica Mini can be easily mounted to a crane with a variety of mounting options, and information captured about the wind is output digitally to the operator's interpretive device. In short, the TriSonica Mini was designed to assure operators know the wind.

According to Anemoment, the TriSonica Mini is an accurate and durable tool that has been deployed for atmospheric monitoring, weather reporting and ecosystem research worldwide. Users include NASA JPL, US Navy, NOAA, NCAR, USDA, DOD, leading engineering and research institutions around the globe such as University of Kentucky, University of Melbourne, University of Virginia,

Even a small increase in wind speed can threaten the safe performance of a crane.

“ The primary concern related to the forces that wind exerts on a tower crane's load is not the speed of the wind, but its pressure. ”

University of Oklahoma, as well as companies, big and small, that need to accurately understand what the wind is doing at any specific time.

Threatening conditions

The safe operation of tower cranes on a jobsite is never something to be taken lightly. Liability issues alone can be astronomical in the event of a crane failure during times of high winds. Investing in a reliable, accurate and robust ultrasonic anemometer will take the guesswork out of knowing real-time wind conditions. Peace of mind comes from knowing the wind. Additional information on the TriSonica Mini can be found at www.anemoment.com.

¹ Kelechava, Brad (2016, July 7). *Wind Effect on Tower Cranes*. Retrieved from <https://blog.ansi.org/2016/07/wind-effect-on-tower-cranes/>.

The TriSonica Mini is small but accurate, according to the company.



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In the 13 years since he purchased Wolff, CEO **Dr. Peter Schiefer** has taken the company to a new level of success. **D. Ann Shiffler** reports.

Reaching

With a history of major business triumphs, Dr. Peter Schiefer has always been a quick study. Tall and stately, Dr. Schiefer has amassed a skillset that gives him a unique perspective when it comes to running a multi-national tower crane company.

Born and raised in Germany, Schiefer studied electrical engineering at the Technical University of Munich. He went on to get his Master's and Ph.D. degrees before taking a job with Siemens in Santa Clara, CA. He spent five years commuting between the U.S. and Europe, working through the ranks as a software engineer, business development associate and product manager.

In time he would move back to Germany to run a unit within Siemens' telecommunications division, which under his direction grew exponentially. He began working in private equity and venture capital for Siemens and was soon promoted to its power generation group, heading the automation and control division. He directed the division that employed 1,500 and had a turnover of 1.2 billion Deutsche Mark.

He was then recruited by Goldman Sachs as managing director in London. Following that appointment, he joined a private equity group in Munich that purchased a renewable energy business unit from ABB, which was involved in

developing and operating wind farms.

"What I realized when that deal closed was that you can really do these deals on your own," he said. "Then Wolff came around and was offered for sale and it was offered to me."

But rather than just make a deal, Schiefer saw Wolff as a company he could build, nurture and grow.

Over the past decade, I have met Dr. Schiefer at the Bauma and ConExpo tradeshow, and we have reported on Wolff's successes in the North American tower crane market. For the past couple of years, Wolff has hosted a holiday party for its customers and associates in New York City. ACT was invited, and we saw it as a good time to catch up with Dr. Schiefer to get his take on the U.S. tower crane market and learn what's going on with Wolff.

One-on-one, Dr. Schiefer is sharp, conscientious and confident. At the party later that evening, I observed him greeting and chatting with customers and Wolff partners. He was cordial and genuine, and a lot of laughter was shared. I could see that these people are more than business associates to him, they are also good friends. I think you will be interested in his answers to my questions.

WHAT'S YOUR TAKE ON THE NORTH AMERICAN TOWER CRANE MARKET?

The current picture – I think we are still in a strong upswing. And I think in terms of real market opportunity, we haven't seen it all.

The U.S. economy is strong and can produce a lot more in terms of

re-development, new commercial properties and infrastructure work. There is strong market potential.

There is a second factor in that some of the philosophies and methods to approach the building side are changing. Where traditionally we saw a contractor bring in crawler and mobile cranes to start the site work, people have started recognizing the benefits of having a tower crane on the jobsite. The smaller footprint, the higher durability – there are a number of positives you can't beat. This is opening up a totally different market perspective and market opportunity.

WHAT HAVE BEEN/ARE YOUR STRATEGIES FOR DEVELOPING BUSINESS IN NORTH AMERICA?

When Wolff invented the tower crane in 1913, it was an international company. As they grew, they had cranes in Europe and

“ Be extremely customer focused and customer centric. Be extremely fast to react and always be approachable. We must motivate everyone in the company to deliver to that first target. Not just motivate, but also encourage and empower. ”

DR. PETER SCHIEFER, CEO, Wolff



new heights

Asia, and the company has a long history in the United States. The previous owner shut down the U.S. market a long time before I bought the company.

We have an international product and in order to really balance the company and its portfolio, we have to be in the international markets. In the U.S. it is particularly interesting because we think we have exactly the right product. It's a product the U.S. market asked for, they are used to it and it's what they want.

We also see a number of changes in awareness and approach. A good example is in New York City, where our entrance [to the market] was triggered by the Department of Buildings. There had been some fatal crane accidents, and they were taking a close look at who is in the New York City market and who is offering tower cranes. The Department of Buildings concluded they needed additional players, so we were invited in for a beauty contest. I think we have clearly demonstrated what Wolff is capable of producing quality cranes and offering strong product support and spare parts.

[Due to my background] the North American market is close to my heart, and it was a natural step for Wolff to come back to the U.S. market. I think it can be one of the biggest and most important markets for our cranes worldwide.

People told us it will be very complex, but at the end of the day we have not had a single incident that was unreasonable. We have been spot-on in the market, and we know what our customers want.

WHAT WERE/ARE THE CHALLENGES IN THE ROLL OUT OF THE WOLFF CRANE RANGE IN NORTH AMERICA?

I think it's really a boring answer. It was not an extraordinary challenge. I think just everything we should do in a very detailed and comprehensive way was demanded and double checked. In terms of technical requirements and documentation, it's been very straight forward. Maybe in Europe someone cuts a corner, but here everything was demanded right on the spot and you have to deliver it.

Wolff's top-of-the-line luffing crane, the Wolff 1250B US, is working on a high-rise project in New York City. The crane features a maximum load capacity of 60 metric tons and a maximum jib radius of 80 meters.

YOU MENTIONED COMING INTO NEW YORK FIRST. THE GOVERNMENT HERE ISN'T KNOWN FOR BEING THE MOST CRANE FRIENDLY, AND CRANE AGE HAS AN ISSUE HERE AND IN OTHER LARGE CITIES.

I don't want to put gas on the fire, but it's not necessarily about the age of the crane. It's how you follow the procedures, how you take care of the crane. Can you prove what you've done with each machine and do you keep all the records? Do you follow the manufacturer's specs in every aspect of the crane's operation? Do you control the process from A to Zed? If you don't do all of that, the crane is not going to be safe. This is quite a complex test and we have the people, the abilities, the energy and the passion to do all of this.

IN NORTH AMERICA, ARE YOU PURSUING STRICTLY SALES OF YOUR CRANES OR ARE YOU ALSO RENTING CRANES?

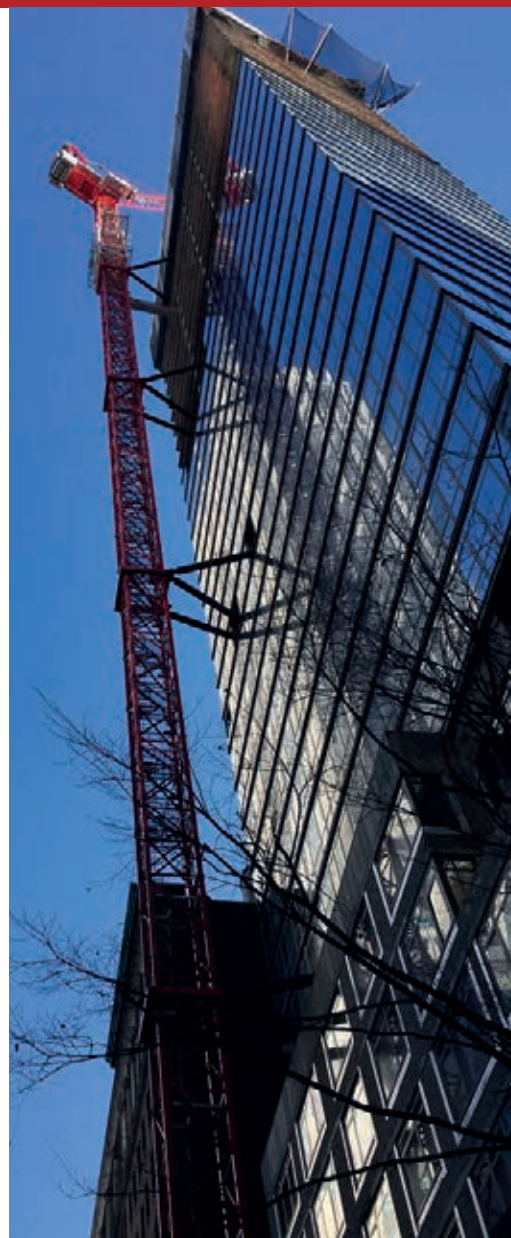
Our model is selling and the partners who buy from us. We have a selective group of partners and they can also rent from us. There is virtually no limit on that. If they need equipment, they can get it from us. We do not compete with them. Yes, we are selling cranes and renting cranes in North America.

WHAT IS WOLFF'S SERVICE AND SPARE PARTS MODEL?

Our prime focus is to have a quality team of service technicians and available spare parts even before the first crane gets there. A higher quality product may mean higher prices. You have to expect the crane will work and if it goes down, it gets fixed within hours, not weeks or months.

Wherever we have a larger population of cranes we will have the needed service technicians and spare parts available. We train our partners, so they are all geared up for this.

Our partners are usually a mix of a dealer and rental company. They have a direct access to the market.



HOW DO YOU COUNTER THE LOWER PRICED OEMS FROM EUROPE AND ASIA WHO ARE NOW PURSUING THE NORTH AMERICAN TOWER CRANE MARKET?

We know how difficult it is and how complex it is to make a tower crane a completely safe product. Steel structures have been around for a hundred years. You add some electronics and it appears to be that simple. But when you dive into it, and you look at the mechanical engineering part of it, and the safety of it, you start with little things like nuts and

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bolts. You advance to steel and electronics quality and you are dealing with 200 to 300 items, where each item, if done incorrectly, can have a severe impact. A small issue out of 300 items can cause a complete failure of the crane.

We want to go to bed each night knowing that we have not cut corners. To accomplish this, it takes a lot of people and a lot of knowledge.

We know some of these names very well. They are not producing even close to the quality of product that we produce. At the end of the day, the market is smart. It takes so much more to really discuss, check and control every single detail, and only then can you produce a truly safe product.

Here's another indication – check the used crane prices for tower cranes that are 15 to 20 years old. There's a reason why one or two brands in the world still have very high prices.

Right now, it's a chase and we have to be fast. People are snapping up the equipment, regardless of the age or how well the equipment was treated. In times like this, when the economy is good, what's going to happen is some of the sub suppliers will make a mistake and you may have components that aren't safe. What you have to do is increase the quality assurance measures and exercises to make sure every step that you take you are producing quality.

Initially, if it's done right, it's expensive. But actually, if the processes are right, it's going to end up being a cost savings. Initially, to install the program you have to treat it as an investment. Invest in quality and you will see the return.

WHAT NEW MODELS ARE IN THE PIPELINE FOR THE U.S. MARKET? BIG LUFFERS, FOR INSTANCE?

Our approach is, because we have short delivery and development time compared to competitors, we are extremely close to the market. When we see a trend, we can react early. Right now, I don't necessarily see an appetite for larger luffers, but I could see that down the road. Our Wolff 1250B installed here in New York City, size wise, is a great luffer at the top of the range.

When you look particularly at the U.S., what's going to be interesting is with building approaches changing from crawlers and mobile cranes to maybe using more tower cranes, there's also a rising demand for smaller tower cranes. It's not just the big beasts.

YOU ARE NOW 13 YEARS WITH WOLFF AND THE TOWER CRANE PRODUCT? IS THE COMPANY WHERE YOU WANT IT TO BE?

The answer is yes and no. No, in the sense that when I bought Wolff in 2005 anything that happened thereafter was beyond my wildest expectations. I think the path we've taken was unexpected. A tiny, small company is now one of the major players. We are investing more capital into our rental fleet per year than our total revenues in 2005. The figures have grown; we are talking about making an annual investment of \$30 to \$40 to \$50 million into the rental fleet. Hold on for a second. We are talking about \$50 million in capital!

I am very happy and very proud of what we as a whole team have achieved and accomplished. Could we have been a bit

“ Once you understand the product you can get addicted to tower cranes. And you are addicted for life. You have a lot of extremely passionate people who live, breathe and die for the cranes. I think it's a life sentence. ”

further down the road in some ways? Yes, maybe. I think in total the whole team has done a great job. It's been exciting through the years, including 2008 and 2009, as you know how the downside can look and how to react. You learn and make the company even stronger.

WHAT DO YOU LIKE ABOUT THIS INDUSTRY?

It's the people and the product. I think once you understand the product you can get addicted to tower cranes. And you are addicted for life. You have a lot of extremely passionate people who live, breathe and die for the cranes. I think it's a life sentence. You don't get out of it.

WHAT'S YOUR BUSINESS PHILOSOPHY?

Be extremely customer focused and customer centric. Be extremely fast to react and always be approachable. We must motivate everyone in the company to deliver to that first target. Not just motivate, but also encourage and empower. At Wolff, we are not going to get stuck in bureaucracy. And then in terms of the outer approach, you have to keep moving forward in the development of the company. Standing still is not an option.

WHAT DO YOU DO WHEN YOU ARE NOT WORKING?

Lot of sports, depending on the season. I love playing tennis, mountain biking, swimming, water sports, wind surfing and snow skiing. Not just downhill, also uphill and climbing.

And if I have to, when it's not possible for this activity, then I go to the gym. If I can do something outdoors that's preferred. So, now I am looking forward to the winter season of skiing and hiking. ■



Wolff has manufacturing sites in Heilbronn and Luckau, Germany.



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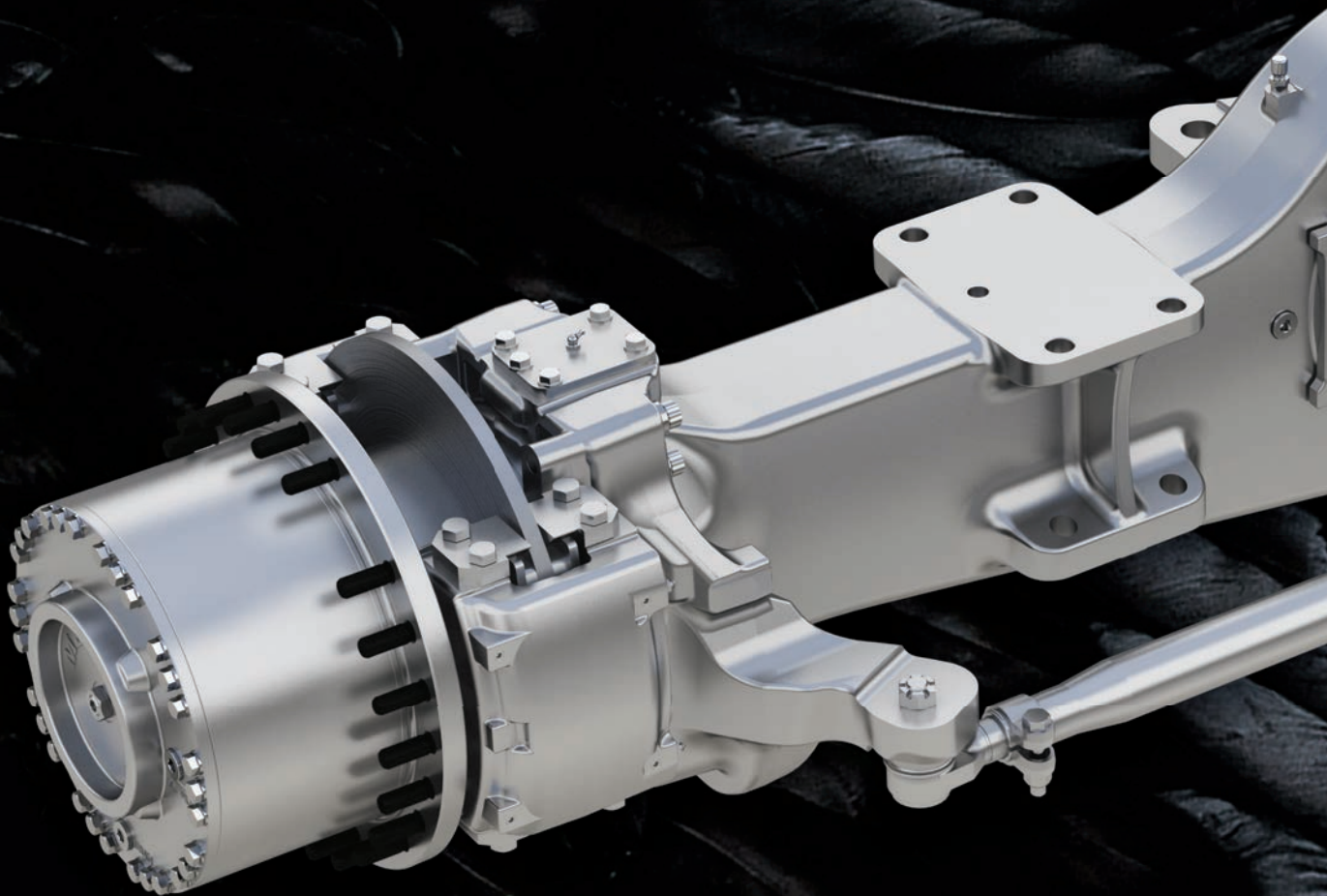
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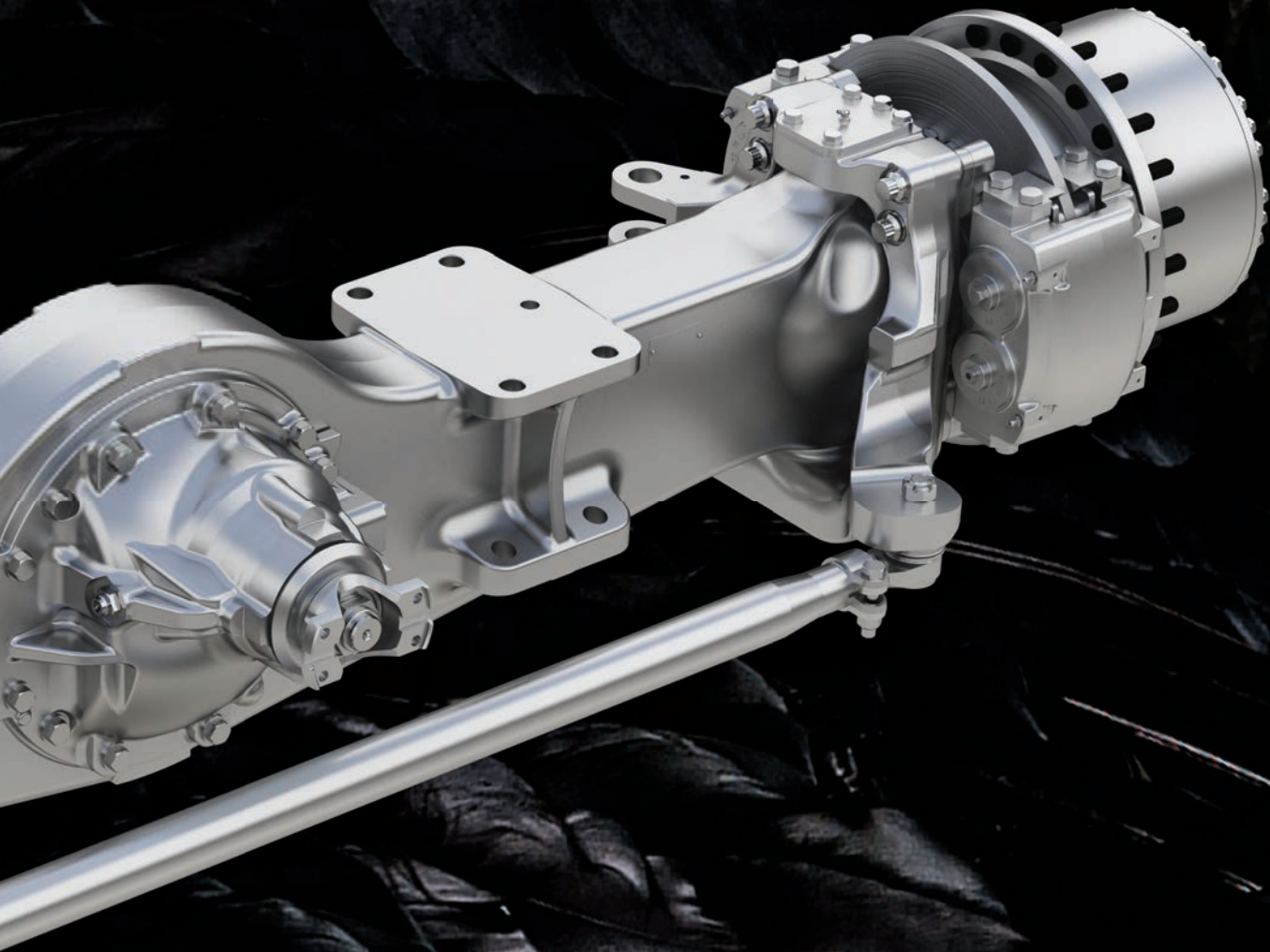


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Train me!

With OSHA Crane Operator Final Rule now enacted, training and safety company services are in high demand.

Many companies held off certifying their operators while the rule was extended. Now there is a rush for training and certified trainers.

Crane safety and training companies are seeing demand for their services heighten as crane companies and operating unions try to understand the new crane operator certification mandate by the Occupational Safety and Health Administration (OSHA).

"We have seen a surge and expect a similar surge in NCCCO certification training and exams for operators that missed the deadline to get certified by Dec 10, 2018," said Billy Cook, NCCCO-certified Mobile Crane Operator and Rigger, and sales director for Crane Inspection & Certification Bureau (CICB). "Right now, TSS, TLL and LBC are the most popular specialty certifications, followed by Articulating Boom Crane Operator and Service Truck Crane Operator Certifications."

Cook said the highest training and certification activity appears to be in Texas and Florida.

Hard push

Many companies held off certifying their operators while the rule was extended, according to Ted Blanton, general manager, NACB Group.

"We are seeing a hard push for NCCER Mobile Crane Operator Certification, at least 50 percent of our current schedule is training and certifying Mobile Crane Operators. We are so backed up we are currently training more NCCER Practical Examiner's to backfill our client's needs," Blanton said.

Industrial Training International operates nine training centers around the United States. Jason Hobson, director of customer success for ITI, said calls for its training services started picking up way

before the final rule was published.

"Some people were completely blind sighted by this and our training solution team has done a great job of diagnosing the issues and solving them for our clients," said Hobson. "We've seen our open enrollment centers in Woodland, WA and Houston have to add classes throughout the year. There has definitely been a rush."

The OSHA Crane Operator Certification Final Rule is also generating lots of questions, especially about the operator evaluation process. With the

new OSHA rule, employers must, through an evaluation process, ensure operators are qualified to operate the machine to which they are assigned. (The components of these evaluations are spelled out in Section 1926.1427(f) – Evaluation).

"Clients are asking if a third-party can be used to satisfy the employers requirement to qualify the operator(s) on the specific crane in its current configuration, at the site it is being used at," Blanton said. "The answer is yes."

The final rule allows employers to rely on previous operator assessments to meet this requirement for operators employed prior to December 10, 2018. Although the evaluation and documentation requirements are not currently in effect, companies need to address this part of the rule when it goes into effect in February 2019.

"Companies will either have one of their employees evaluate their crane operators or they will hire a third party to do the assessment checklist, which they can use to designate in writing their crane operators as qualified," said Cook. "Third-party evaluators will not designate any crane operators as qualified."

Training operators through virtual reality simulation allows the participant to learn how to react to dangerous situations without actually being in the seat of a crane.





Cook said that CICB is currently researching the liability of the possibility of offering to be a third-party crane operator evaluator.

Simulator training

NACB has been active in the use of simulator-based training, and reaction to its virtual reality (VR) system has been excellent, Blanton said.

“We believe the NACB - Interactive Education Systems (ies) VR simulation is the very best option available to the end user, as our simulation requires no annual subscription to access various scenarios and the system allows the user to build their own exercises and levels of difficulty,” Blanton said. “Training of operators through simulation allows the participant to be taught how to react in situations such as contact with powerlines, without the dangers of actual contact with live lines, simulated overload conditions caused by increased radius, such as telescoping out, or booming down. Additionally, using simulation allows honing the operators load control skills, such as controlling swing and shock loading.”

The NACB ies platform provides lifting environments and scenarios that allow operators to improve their skill and track their progress. According to Blanton, VR simulation provides a true crane cab experience that includes responsive,

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Global Crane & Rigging Certification	www.globalcrane.com
Global Environment Network	www.My-DVBE.com
Hite Services Limited	www.hiteservices.com
IMPACT	www.impact-net.org

realistic physics, crane operations, lifting environments and data management. Built in VR scenarios provide the ability to add multiple obstacles and components to customize the environment. The integrated data management system allows instructors to monitor the student's utilization of the system, create user groups, build individualized exercises and assign them to a student or group.

Industrial Training International (ITI) has also been a leading developer of VR simulator training.

In early 2018, the Puget Sound Naval Shipyard selected ITI VR Crane Simulations to support their crane operator training and assessment programs. ITI was awarded the Hardware Simulators – Crane Operator Training Aids and Devices contract, which has drawn the interest of multiple U.S. Navy locations around the world.

The newest location is the



Simulator partnership

The SIM 61 simulator is the result of a partnership between Acreos and AMCS Technologies. AMCS Technologies specializes in anti-collision and zoning systems while Acreos develops virtual training simulators, reproducing as closely as possible the conditions of a real work environment. The two companies are bringing together crane operator training and crane operator aids.

The SIM 61 allows the creation of a virtual jobsite by reproducing a three-dimensional environment. It gives the user the possibility to choose a place (city, desert, shipyard), the size of the jobsite, the type and size of the machines (tower cranes, luffing cranes, mobile cranes), the type and size of the building (number of floors, shapes) and to set all the data of the cranes (number, jib length, load, speed).

The partnership is likely to produce more technologies in the simulation arena.

Portsmouth Naval Shipyard - Naval Sea Systems Command, which received two VR simulators – a desktop and a motion-based simulator, and ITI Unlimited Crane Library subscription, which allows the Navy operators to benefit from additional crane models, new scenarios and updates as they are released, according to ITI's Hobson.

ITI continues to expand its VR Crane Simulations, adding the Overhead Crane Simulator late last year, and its Tower Crane simulator program is set for an early 2019 release. ITI's VR simulator programs include rough terrain, lattice boom crawler, boom truck and carry deck cranes.

Starting from scratch

ITI started its VR simulator program in 2016 after evaluating contemporary crane training simulator options.

"We are always looking at trends and the solutions required," said Hobson. "We are looking out for the students at our nine training centers. We wanted to see more solutions for hands-on training time and so we evaluated all the simulator programs available. We didn't feel comfortable with what we saw so we developed our own."

CICB offers simulator training at its Houston Career School.

"We generally use the simulator for new operators," said Cook. "Before we put them in the seat of a crane, we want to make sure they can operate a simulator."

Cook said that young people often prefer training on a simulator because they are used to the "video game" technology. Simulators are good for introducing different lifting scenarios to the prospective operator, he said.

While the instructors at CICB see the benefit of simulators, they are still seen as

Crane manufacturers are using simulators in research and development, prototyping, sales and marketing and customer education.



a tool in the total training process.

"You can't just use a simulator to teach someone to operate a crane," said Cook. "There are good online classes too, but again, you can't teach someone to operate a crane online."

The best way to train people is through classroom instructors and working in the seat of the crane, once all the basics have been taught, Cook said.

"If there's an instructor-led classroom, that's a far better place to really learn how to operate a crane than on a simulator," said Cook. "Simulators do have a place in training but they don't provide the true experience of being in the operator seat of a real machine."

Equipment simulators can be used for more than just training, according to Drew Carruthers, product line manager for construction products at CM Labs Simulations.

"Simulators can help inform accident causes and risk reduction measures, they can be used as a sales or recruitment tool, or in equipment design," Carruthers said.

Simulators allow new trainees to practice before getting into the seat of an expensive crane.





Affordable training

Contractors and unions, which typically use simulators for internal skill development, have different objectives than schools and training companies, according to Carruthers.

For example, design-build general contractor Conewago Enterprises was looking for a more affordable way to manage the constant stream of operators needing training.

“Previously, the company rented equipment, which was both expensive and required them to hire an instructor for one-on-one training,” Carruthers explained. “After employing a CM Labs Vortex simulator with training packs for rough-terrain crane, crawler crane, excavator and wheel loader, they reduced their training costs by 60 percent. The company also found that training on the simulator improved pass rates on crane operator certification exams.”

Crane manufacturers are also using simulators in research and development, prototyping, sales and marketing, and customer education, he said. Recently, Manitowoc Cranes employed CM Labs to integrate its new Crane Control System into a Vortex simulator, so dealers and customers could experience the CCS on a true-to-life worksite, Carruthers said. The simulator replicates the functionality and behavior of a 40-ton Grove RT540E under the control of an actual CCS user interface, he continued. The National Commission for the Certification of Crane Operators (NCCCO) is conducting a study comparing performance on certification exams when operators train on live equipment versus a simulator.

“It’s not unlikely that someday simulators could be used for practical exam testing for certification,” Carruthers said.

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KC Training Technology	www.kctrainingtechnology.com
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National Commission for the Certification of Crane Operators (NCCCO)	www.nccco.org
National Crane Inspection	www.nationalcraneinsp.com
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NCCER	www.nccer.org
North American Crane Bureau	www.cranesafe.com
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*Excerpted from the 2019 American Cranes & Transport Sourcebook

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Essential elements

An employer's guide to OSHA's crane operator qualification requirements by type of crane.

Most employers are likely familiar with the crane operator qualification requirements OSHA published in 2010. The latest rule published in November 2018 modifies some of those. Here, NCCCO provides an overview of the essential elements.

WHAT DO I HAVE TO DO TO ENSURE MY OPERATORS ARE QUALIFIED?

There are three essential components to this process. You must ensure that each of your operators is trained, certified (or licensed) and evaluated.

Certification

WHAT IF I HAVE OPERATORS WHO ARE NOT YET CERTIFIED?

They are classified as “operators-in-training” and can operate under supervision and with certain restrictions (see 1926.1427(b)(2) thru (4)).

ARE ANY CRANES EXEMPT FROM THIS REQUIREMENT?

Operators of derricks, sideboom cranes, or equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2,000 pounds or less are not required to have certified operators. However, your responsibility to train still applies.

WHAT IF I WORK AS A CONTRACTOR TO THE MILITARY?

This rule still applies to you. Military qualifications apply only to military employees, i.e. federal employees of the Department of Defense or Armed Forces.

WHAT ABOUT MY OPERATORS WHO WORK IN STATES THAT REQUIRE A LICENSE? DO THEY HAVE TO BE CERTIFIED ALSO?

The state license should suffice so long as the state program meets or exceeds OSHA's requirements; that is the licensing authority's responsibility. In any case, it's likely that your operators got NCCCO certification as a condition of obtaining their state license.

WHO PAYS FOR THE CERTIFICATION AND OR LICENSE?

You do, as the employer. It wasn't certain

in the 2010 rule, but OSHA made that very clear in this latest rule.

CAN I GET CERTIFICATION FOR MY EMPLOYEES FROM ANYONE?

No! The issuing entity (e.g., NCCCO) must be accredited by a nationally recognized accrediting agency (such as ANSI or NCCA) so as to be sure that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment and personnel have been met.

DOES CERTIFICATION HAVE TO BE ACCORDING TO THE CAPACITY OF THE CRANE OR JUST BY TYPE?

Certification does not have to be by capacity. In fact, OSHA has stated that in all of its research it found no additional safety benefit for certifying by anything other than type of crane, and it would impose a huge financial burden on employers unnecessarily if the capacity of the crane were included.

IS CERTIFICATION A ONE-TIME EVENT?

No. OSHA requires that operators recertify every five years. They recognize that “certification for life” would not allow for operators to be periodically tested to ensure they have retained essential safety knowledge and are up to speed with the latest regulatory and technical developments. In any case, accrediting bodies require certification organizations to have a recertification component to their programs.

WHAT DO THE OPERATOR TESTS HAVE TO COVER?

OSHA is pretty specific about that and has listed what it regards as essential knowledge and skills listed in paragraphs (j)(1) and (2) of 1926.1427.

WHAT IF THERE IS NO CERTIFICATION AVAILABLE FOR A SPECIFIC TYPE OF CRANE?

NCCCO has developed accredited certification programs for a wide variety of cranes, but it's simply not feasible to cover every single type. In those cases, OSHA has said that if no accredited testing agency offers certification for a particular type of equipment, an operator

will be deemed to have complied with its certification requirements if the operator has been certified for the type of crane that is “most similar.”

HOW I DETERMINE WHAT TYPE OF CRANE IS “MOST SIMILAR”?

As a service to industry, NCCCO last year assembled a group of crane industry experts to address this very issue. The Crane Type Advisory Group (CTAG), referenced by OSHA in the Preamble to the Final Rule, has made several determinations as to what type is “most similar” to cranes for which a certification program is not available. A national database of these determinations will be published early in 2019. In the meantime, requests for determination can be sent to cranetype@nccco.org.

DO I HAVE TO USE CERTIFICATION PROGRAMS DEVELOPED BY AN ACCREDITED CERTIFICATION ORGANIZATION OR CAN I DEVELOP MY OWN?

You can develop your own program, but it must meet essentially the same development, management and test administration requirements of a certification program from a third-party organization. And it must be audited by someone who is certified to evaluate such programs by an accredited crane operator

Under the new OSHA rule, crane operators have to be trained, certified and evaluated to be considered qualified.



testing organization. The requirements are laid out in 1926.1427(e).

WHAT IF I HAVE OPERATORS THAT DON'T UNDERSTAND ENGLISH?

OSHA allows tests to be administered in any language the operator understands. However, it comes with conditions: The operator is only permitted to operate cranes equipped with operations manuals and load charts that are written in the language of the certification (which must be stated on the certification card), and he/she must be able to effectively communicate with the signal person and lift director in the language used.

Evaluation

WHAT AM I REQUIRED TO DO UNDER OSHA'S NEW EVALUATION REQUIREMENT?

The rule states that, effective February 7, 2019, you must conduct an evaluation of each operator to ensure he/she is qualified by a demonstration of (i) the skills and knowledge necessary to operate the equipment safely, and (ii) the ability to recognize and avert risks associated with the operation.

WHAT DOES OSHA MEAN BY "SKILLS AND KNOWLEDGE"?

The skills and knowledge OSHA has identified include those specific to the safety devices, operational aids and software the crane is equipped with. Most importantly, the evaluation must take into account the size and configuration of the crane he/she plans

to operate including (but not limited to) the crane's lifting capacity, boom length, any attachments (such as a luffing jib), and counterweight set-up.

WHAT ELSE MUST THE EVALUATION CONSIST OF?

The evaluation must also cover the operator's ability to perform the hoisting activities required for the work he/she is assigned, including, if applicable, blind lifts, personnel hoisting and multi-crane lifts.

CAN I JUST NOT GO BY OSHA'S STANDARD DEFINITION OF A "QUALIFIED PERSON"?

No. The rule is very clear on this. OSHA states that the definition of "qualified" in §1926.32 does not apply here. In other words, possession of a certificate or degree cannot, by itself, qualify an operator to operate cranes.

WHO CAN CONDUCT THE EVALUATIONS?

They must be conducted by someone who has the "knowledge, training, and experience necessary" to assess equipment operators.

CAN I DELEGATE THESE EVALUATIONS TO SOMEONE ELSE?

The evaluator must be an employee of yours or be acting as your agent. If you do delegate the evaluations to an agent you are still responsible for ensuring they are done correctly.

HOW SPECIFIC DO THE EVALUATIONS HAVE TO BE?

Once you have successfully evaluated an operator for the necessary skills and knowledge for the size and configuration of crane he/she plans to operate, you may allow that operator to operate other equipment that you can demonstrate does not require substantially different skills, knowledge, or ability to recognize and avert risk to operate.

DO I HAVE TO DOCUMENT THE EVALUATION?

Yes. The documentation must be available at the worksite and must include: the name of the operator and the evaluator; the date of the evaluation; and the make, model, and configuration of the crane used in the evaluation. The evaluator also has to sign it.

DO THE EVALUATIONS I HAVE ALREADY DONE COUNT?

Yes, for operators employed prior to December 10, 2018, you may rely on

your previous assessments in lieu of conducting a new evaluation of that operator's existing knowledge and skills. The documentation must note the date of the assessment and the make, model and configuration of the crane on which it was done.

HOW OFTEN DO I HAVE TO DO THESE EVALUATIONS?

Re-evaluations are required whenever you provide retraining to an operator. And you must retrain an operator whenever you believe it's necessary based on an operator's performance or an evaluation of the operator's knowledge. The re-evaluation need only focus on the area(s) which the retraining covered.

Training

WHAT TRAINING DOES OSHA REQUIRE ME TO DO?

You must provide each operator-in-training with sufficient training, through a combination of formal and practical instruction, to ensure that the operator-in-training develops the skills, knowledge and ability to recognize and avert risk necessary to operate the equipment safely for assigned work.

WHAT SPECIFICALLY MUST THAT TRAINING INCLUDE?

OSHA is pretty specific about this. It lists the knowledge and skills it has identified as critical to safe crane operation in 1926.1427 (j)(1) and (2).

CAN OPERATORS-IN-TRAINING OPERATE CRANES EVEN IF THEY ARE NOT CERTIFIED?

Yes, but they are restricted in what they can do, and they must be continuously monitored.

WHAT ARE SOME OF THE RESTRICTIONS ON WHAT AN OPERATOR-IN-TRAINING CAN DO?

OSHA has identified five circumstances in which operators-in-training who are not yet certified are not allowed to operate cranes:

- If any part of the crane, load line, or load (including rigging and lifting accessories), if operated up to the crane's maximum working radius in the work zone could get within 20 feet of a power line that is up to 350 kV, or within 50 feet of a power line that is over 350 kV.
- Hoisting personnel.
- Multi-crane lifts.





- Over a shaft, cofferdam, or in a tank farm.
- Multiple-lift rigging operations (unless the operator's trainer determines that the operator-in-training's skills are sufficient).

WHO MONITORS THE OPERATORS-IN-TRAINING?

The person who OSHA identifies as the "operator's trainer" is responsible for continuously monitoring the operator-in-training. He or she must be an employee

OSHA lays out specific details of what areas it expects employers to train their operators on and to be prepared to retrain (and re-evaluate) as necessary.

or agent of the operator-in-training's employer and must have the knowledge, training and experience necessary to direct the operator-in-training on the equipment in use.

CAN THE PERSON MONITORING THE OPERATOR-IN-TRAINING DO OTHER THINGS WHILE SHE OR HE IS MONITORING?

OSHA states that, while monitoring the operator-in-training, the operator's trainer must perform no task that detracts from the trainer's ability to monitor the operator-in-training. Moreover, the operator's trainer and the operator-in-training must be in direct line of sight of each other, and they must be able to communicate verbally or by hand signals. For tower cranes, direct line of sight is not required.

WHAT DOES OSHA MEAN BY "CONTINUOUSLY" MONITORED?

OSHA says that the operator-in-training

must be monitored by the operator's trainer at all times. Short breaks are permitted, however, so long as the break is no longer than 15 minutes and there is no more than one break per hour. Immediately prior to the break the operator's trainer must inform the operator-in-training of the specific tasks that he/she is to perform and the limitations to which he/she must adhere during the operator trainer's break. Of course, those tasks must be within the operator-in-training's abilities.

DO I HAVE TO RETRAIN?

Absolutely. You must provide retraining in relevant topics for each operator when, based on the performance of the operator, or an evaluation of the operator's knowledge, there is an indication that retraining is necessary. ■

Disclaimer

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IUOE's International Training and Conference Center is a sophisticated training solution for the construction industry.

The 265-acre campus of the International Training and Conference Center is in Houston.

One-stop shop

The IUOE's new International Training and Conference Center in Houston serves as a mecca for construction and engineering training. It opened last year as the largest and most comprehensive training facility for union Operating and Stationary Engineers in North America. The 265-acre campus includes 17 classrooms, 227 dorm rooms and engineered pads for a variety of cranes and heavy equipment. Born out of the growing need for trained workers in the industry, IUOE and other major industry players have joined together to create a one-stop shop for a workforce needing to master new technologies.

Several years ago, IUOE General President James T. Callahan attended a symposium in Houston that was hosted by the American Petroleum Institute. Former Exxon executive and former Secretary of State Rex Tillerson was a guest speaker. In his presentation, Tillerson made it clear that over the next 10 to 15 years the industry would spend in excess of \$190 billion converting over to new technologies in oil and gas refineries in the Gulf Coast region. The industry was challenged with the possibility of not having enough trained workers to perform these projects. Coupled with a growing labor shortage and the need for more training industry wide, IUOE set out to meet this ominous challenge. That was the start of the vision for the state-of-the-art training and conference center.

"What we see in construction is no different than what we see in our general lives every day," said IUOE Chief of Staff Joe Giacini. "People that are between

the ages of 40 to 60 are being forced to learn new technology that they've never seen before. That's a huge chunk of our workforce. It's a very large amount of the skillset in our organization. You've got people out there that have been crane operators for 25 to 30 years, that are excellent. However the technology and the computer-based systems and operational controls in these machines are bypassing the skillset of the people who are already 25-year veteran crane operators."

Latest and greatest

IUOE created a "Blue Ribbon Commission" of training experts and opened up the conversation about what it takes to run a world-class training program to meet all the needs. The initiative was met with tremendous success, and IUOE had buy-in and participation from every corner of the United States and Canada, Giacini said.

The Center encompasses four main divisions that specialize in training for hoisting, portable and construction, mechanics, welders and surveyors, and stationary engineers. Giacini said it's important to note that IUOE wasn't building a facility strictly for cranes.

"We've built a school that encompasses all of the disciplines that our people work in," he said.

Training people on the latest, greatest and most technologically advanced equipment is an important mission at the Center. To accomplish this, partnerships were formed with crane manufacturers and owners including Tadano America, Link-Belt Cranes, Terex Cranes,

Manitowoc Cranes (including Grove and Potain), Liebherr and Morrow Equipment.

"We want it to be a true partnership, where it benefits our members, the industry, our partners and everyone else," said Giacini. "It's the place to be."

These partnerships have resulted in an entire fleet of brand new cranes for workers to learn and train on. Cranes onsite include a Tadano GR1000 XL, Tadano GTC 800, Link-Belt 75-RT, Link-Belt 218 HSL, Manitowoc MLC 165, Grove TMS 9000-2, Grove GRT 8100, Potain MDT 219, Potain MDT Igo T70 A, Terex HC120, Liebherr LRT 1100-1 and a Jekko SPK 60 mini crane. Several more cranes will be delivered to the Center in the coming months including a Terex RT100, a Liebherr 172 EC-B 8, a Liebherr 357 HC-L 12/24, a Liebherr 81 K.1, a Liebherr LR1130, a Terex CTL 260-18 and a Jekko SPX 1040 and a SPX 312 C.

The Center recently purchased an additional 30 acres for its growing fleet. This initiative continues to grow as the positive effects are already visible. ■

“People that are between the ages of 40 to 60 are being forced to learn new technology that they've never seen before.”

JOE GIACINI, Chief of Staff, IUOE

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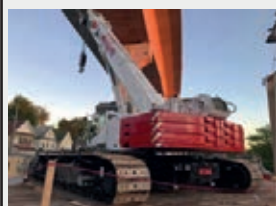
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Knuckling down

Articulating cranes are known for their agility, strength and ability to get in tight spaces. **Hal Lundgren** reports.

With their ability to reach up, out, over and even below, articulating cranes play an important role in the realm of lifting. While the capacities of these cranes may be on the smallish side, they are the preferred crane for material handling, from pallets of tile, siding and the like to prefabricated concrete components.

A variety of industries have adopted knuckleboom cranes as the lifting solution of choice. These industries include construction, mining, state department of transportation organizations and marine industries, to name a few.

Features of articulating cranes include radio remote control, overload and operator protection and manual and hydraulic swing up stabilizer legs. They can be mounted on trucks or pedestals. *ACT* rounded up some recent projects taken on by various articulating cranes.

A Fassi F1500XP enabled Crane Specialists to complete a hospital project safely.



Runnion Equipment offers a range of Palfinger articulating cranes, including models that install highway signs and guardrails.

Emergency solution

Baltimore hospital officials doubted whether a tower crane was the right lifting solution for an expansion project. When emergency helicopters arrived or departed, construction would temporarily stop and the crane would have to move.

Hospital and construction officials also disliked the idea of placing a crane on an adjacent street, requiring traffic stoppages and slowdowns. More important, a street crane could also delay ambulance arrivals at the hospital's ER.

Challenged to find the best method of lifting materials to several floors, the construction company turned to Baltimore-based Fasca International, the U.S. distributor of Fassi cranes.

Jeff Kline of Crane Specialists suggested that a Fasca knuckleboom would be right for the high-rise structure. Working with Fasca, the team decided to mount a heavy-duty Fassi F1500XP on a crane mast already in place. The F1500XP offered a maximum lift of 66,100 pounds. Its maximum hook height is 134 feet.

The Fassi knuckleboom reached the needed height for all floors and rotated 360 degrees. It also continued to operate in winds up to 45 mph, significantly higher than other cranes might have withstood.

A warning call from authorities would prompt retraction of the crane to neutral



position in seven minutes – seven feet beneath the helipad. Lifting would resume minutes after the helicopter landed or departed.

The Fassi crane eliminated helicopter safety issues and a traffic-blocking street imprint while helping complete the project ahead of schedule.

Installing signs

A Palfinger PK18002-EH articulating crane has turned highway sign and guardrail installations into a safer, more efficient project for a Runnion Equipment customer.



IMT 12/86 and 14/98 articulating cranes provide building materials for new and expanding McDonald's restaurants.

growth. McDonald's has become the world's largest food server with about 70 million customers a day in 100 nations. Aiding McDonald's growth got a bit easier after the tile company purchased two Iowa Mold Tooling (IMT) articulating cranes.

"We have two series of IMT knuckleboom cranes in our fleet – the IMT 12/86 and IMT 14/98," said Todd Treu, a Wasau manager. "They allow us to unload at a customer's location, delivering our products without damage."

The truck-mounted cranes proved the best option for limiting delivery to a one-step process. "It's a lot cleaner delivery if we can put the product on one of our trucks and take it right to the customer and have our cranes set it on the ground," he said.

The two IMT cranes have 20-foot horizontal reach and lift capacity up to 97,000 foot-pounds. The hexagonal boom's extended reach have been

especially reliable delivering heavy items such as a textured concrete trash can, table or bench to a McDonald's restaurant or a giant, red concrete ball that identifies a Target store.

Treu said IMT articulating cranes have a strong history of safely delivering precast concrete paving products, terrazzo products and site furnishings.

"Thanks to these cranes, it's amazing how much stuff we have put out there on the street," he said. ■

Pre-cast concrete product delivery is a one-step process for Wasau Tile, a maker of architectural concrete, terrazzo and metal architectural products.

"The advantage really comes from the safety aspect," said Brad Runnion, sales support manager, Runnion Equipment. "There are some operators in the world that will short jack their outriggers without stability control monitoring. They will begin working, forget how the outriggers are configured and swing the crane over to the short-jacked side, then tip the crane over. With Palfinger's (computer-guided) stability control, the crew can safely configure the outriggers and operate the crane exactly as it was designed to function."

When the crane puts a large, green highway sign or guardrail into position, it's a one-time-only placement.

The Palfinger articulating crane's performance also improves highway safety while limiting traveler inconvenience.

Runnion speculated that, before this crane's arrival at roadsides, "In order to fully deploy the outriggers, paying for a lane closure was necessary."

Runnion also pointed out that depending on crane size and desired payload, a knuckleboom can be installed on a non-CDL chassis.

The PK18002-EH has a lifting capacity of 13,440 pounds. Hook height has a maximum hydraulic reach of 55 feet, 9

inches. Runnion Equipment is based in Lyons, IL.

Moving materials

A 65-year-old maker of architectural concrete, terrazzo and metal architectural products has found a faithful ally in serving one of its oldest customers.

Wasau Tile began working for McDonald's shortly after the tile company's 1953 founding. Both companies have enjoyed consistent



Articulating crane OEMs

Manufacturer	Capacity of range (US tons)	Approximate number of models in range
Effer	1.984 to 44.86	28
Fassi	1 to 44	40
IMT	0.87 to 17.1	36
Palfinger	3.31 to 44.1	70
PM	2.5 to 150.3	31

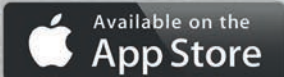
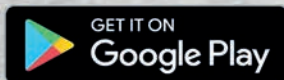
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Pictured is one of two Terex RT555-1s that Empire Crane purchased in October at the Ritchie Brothers Auction in Pittsburgh, PA.

Whether buying online or in person, auctions provide an important portal for equipment. **Hannah Sundermeyer** reports.

Auction check-in

These days you can order just about anything on your phone and have it delivered to your front door. So why can't it be that easy for cranes and other equipment? It almost is. The world of equipment auctions is steadily improving alongside technological advances, even though many people still prefer to attend auctions in person. Whether it's tuning into a live auction on an app or keeping it old school by bidding on site, auction environments are a proven way to acquire well priced and high quality machines.

ACT convened a panel of three industry experts to get their take on equipment pricing, online versus in-person bidding and equipment in most demand.



DOUG OLIVE,
Senior Vice President,
Pricing & Valuations,
Ritchie Bros.



LUKE LONERGAN,
Vice President/CEO,
Empire Crane



GINA KAKTIS,
Marketing Director,
Imperial Crane

Participants in our forum include Gina Kaktis, marketing director, Imperial Crane; Doug Olive, senior vice president pricing & valuations, Ritchie Bros.; and Luke Lonergan, vice president/CEO, Empire Crane.

HOW DO YOU CHARACTERIZE THE AUCTION BUSINESS FOR CRANES AND SPECIALIZED TRANSPORT TRAILERS AND TRUCKS?

KAKTIS: The auction business for cranes, trucks and trailers is an important component of our overall sales and marketing strategy. Auction companies like Ritchie Brothers, with their acquisition of Iron Planet's technology, focus and ability to thoroughly inspect equipment, compliments Imperial's technology and internet focus approach to selling cranes. By advertising online with Crane Network, we can manage our sales pricing and reach a global audience. This allows us to get a pulse on the equipment demand and pricing. Throughout the marketing process we can then continue to reduce the pricing until we get to the OLV (Orderly Liquidation Value).

OLIVE: So far in 2018 (January-November) we have sold more than 1,100 cranes through our live onsite auctions alone, which is down slightly from the same time period in 2017, but prices have held steady year over year. Late-model, low-hour cranes continue to be the strongest sellers. In particular, we have seen strong prices for crawler cranes in 2018. Pricing for transport trucks has been strong in 2018, especially since supply has been hard to

find. As expected, pricing is particularly strong for late-model, low-mileage units – they are hard to get due to manufacturer backlogs and high demand in the market, and as a result are bringing a premium in the marketplace. We've also seen solid pricing for specialty lowboy trailers this year.

LONERGAN: Auctions are a great option for those hard-to-sell cranes, or if you have to liquidate your fleet. On the flip-side they're also great for buyers because the prices are at their lowest and you can get a really good deal if you've done your research beforehand. Plus, it's a different environment than traditional purchasing at the dealership; it's much more fast paced and fun.

WHAT ARE THE CHALLENGES IN BUYING AND SELLING CRANES/EQUIPMENT AT AUCTION?

KAKTIS: The number one challenge of buying cranes/equipment at an auction lately has been the growing demand for used cranes, driving up the prices and limiting our ability to find what we consider great deals.

OLIVE: Because of the high-dollar value of cranes, as well as safety and certification issues, crane buyers want to know as much as possible about an item before purchasing – most buyers want to do a full inspection of a crane before they place a bid. Our job is to make sure customers have all the information they need to make confident bidding decisions. The more confident they are in the quality of the item, the higher they will bid on auction

day. With our live onsite auctions, we offer high-res photos and detailed information through our website and then buyers can inspect and compare cranes in person at the auction site.

LONERGAN: For us, auctions are a last resort and are for the cranes that are just harder to get rid of. The prices are not as high as you can get selling them retail or directly through our salesmen. Great prices for buying! As a buyer though, you never really know what you could be getting into with an auction item, so you are taking a risk.

HOW DOES THE ONLINE MARKET COMPARE TO THE "KICK THE TIRES" BUYER WHO SHOWS UP AT THE ACTUAL AUCTION?

KAKTIS: The online market has been around now for over 20 years, and is the commonly accepted method for Imperial Crane and other companies to buy and sell equipment. The "kick the tires" buyer is most likely at the auction to network and socialize with his or her peers.

OLIVE: Online sales are a huge part of our business today. In fact, online buyers make up more than half of the total buyers in our onsite auctions on average, and

sometimes that number can reach 60 or 70 percent. We are also seeing increasing number of bids and purchases through our mobile app – so far in 2018 we have sold more than \$2 million worth of cranes through the app. No matter how people are buying assets – onsite or online, they all have the same need for information on the assets they are bidding on. The more info they have, the more confident they will be when bidding. For our onsite auctions, bidders can view detailed information and high-res photos online and then inspect and compare the assets in person. It's important to understand that, even with the growth of online buying, most online customers still love to inspect items in person before they bid, especially crane buyers because their equipment purchases can be quite expensive.

LONERGAN: For customers, it's very easy to sit on your computer and talk to the seller via e-mail. You have a world of answers and a world of cranes at your fingertips. You have as much time as you need to shop around and make a decision without pressure. It's a very different pace at the auction. You have to know your max price and exactly what you're looking at. You are

there in person; either you buy it, or you don't. You aren't there to kick the tires.

WHAT ARE THE MOST SOUGHT-AFTER CRANES? TRAILERS?

KAKTIS: As a successful crane rental company it's important to have a full complement of crane models across the board. That having been said, I don't think there is any question: mobile cranes, both truck and all-terrain continue to be sought after because of their versatility.

OLIVE: The most sought-after cranes and trailers at our auctions are almost always late-model, well-maintained, highly-spec'd units. Crawler cranes have been achieving strong market prices – we've sold just 100 crawler cranes through our onsite auctions so far in 2018, down slightly from the same time period in 2017.

LONERGAN: Right now, all-terrain cranes are the most sought-after cranes. We are quoting used all-terrain cranes all over the world every day and have sold many new Demag's in our territory. To meet this need, Empire Crane purchased 15 new Demag ATs including seven Demag AC 45 City cranes, along with the 15 used ATs that we currently have in stock. ■

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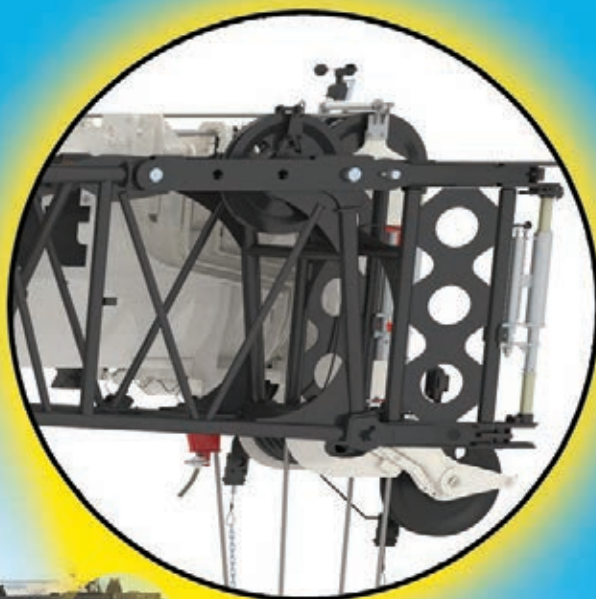


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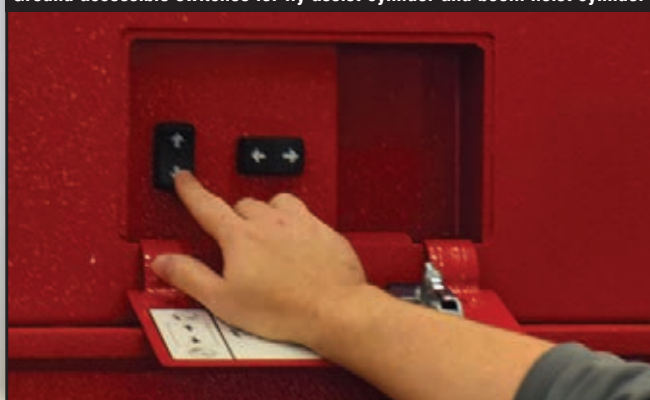


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Tower power

The first electric Favelle Favco MK440E is helping to construct a new luxury condominium tower in downtown Brooklyn. **D. Ann Shiffler** reports from 22 stories.

Favelle Favco tower cranes have been a mainstay on the New York City skyline for many years. A rugged design and strong capacity charts have given these luffing jib tower cranes a good reputation and a loyal following, according to Thomas Guzzi of New Jersey-based TES Inc., the sole distributor for Favelle Favco tower cranes in the United States.

TES recently sold two new Favelle Favco MK440E units to U.S. Crane & Rigging, based in Ridgewood, NY. Founded in 2000, U.S. Crane is one of the fastest growing crane companies in the region, providing equipment from 30 to 600 tons capacity in street cranes and 9 to 55 tons in tower cranes. The company also rents derricks and offers specialized

About the project

11 Hoyt will be a new luxury residential tower in downtown Brooklyn. Designed by Hill West Architects and Studio Gang, the building will rise 51 stories and feature 480 condominium units with 190 different floor plans. The building stands next to the Macy's department store on Fulton Street, which is also undergoing renovations that include a 10-story office tower on top of the store.

transportation services.

The notable point about the new Favelle Favco MK440E tower crane is the "K" in the product name. It's the first electric Favelle Favco unit to work in New York City.

"More and more contractors are going green," said Tom Auringer, owner, U.S. Crane & Rigging. "I knew this was the perfect crane for this project, but we needed it to be electric. TES and Favelle Favco said they could provide it."

A workhorse

The first MK440E is working at a condominium jobsite in downtown Brooklyn known as 11 Hoyt, located at the corner of Holt and Fulton Streets. The



The notable point about the new Favelle Favco MK440E tower crane is the "K" in the product name, as it's the first electric Favelle Favco unit to work in New York City.

crane was erected last summer, and as of mid-November 2018, it was positioned 22 stories above ground, lifting rebar, helping with concrete pouring and moving building materials. The crane is also lifting and installing the building's concrete exterior panels. The exterior panels were designed so that they will produce a rippling effect as the building rises in the sky.

The crane has performed flawlessly, Auringer said.

"We have two additional units on order," he said.

On any given day, some 200 workers are on the jobsite. U.S. Crane & Rigging's operator and rigging team work with the contractor and architect to provide the lifting solutions in the proper sequence.

When the building reaches its full height of 51 stories the crane will top out at a height of about 800 to 900 feet.

The MK440E has a maximum boom length of 225 feet with the fly. The fly hoist can lift 22,000 pounds at a radius of 149 feet and 6,600 pounds at a radius of 222.7 feet.



“ If you don't have enough power, the crane will not perform... the two options in New York are to get power from the city or use a generator. ”

MICHAEL KHOO, General Manager,
Favelle Favco Cranes USA



When the building reaches its full height of 51 stories, the crane will top out at a height of about 800 to 900 feet.

Typical loads on the main hoist are 110,300 pounds at a 40-foot radius, 55,100 pounds at an 80-foot radius and 25,000 pounds at a 140-foot radius. The fly hoist can lift 22,000 pounds at a radius of 149 feet and 6,600 pounds at a radius of 222.7 feet.

The MK440E has a maximum boom length of 225 feet with the fly. It has a 25-foot tail radius.

The speed of the crane is an attribute, Auringer said.

With the luffer at 15 to 86 degrees and a boom length of 225.7 feet, the crane's luff speed is 2 minutes at 114 KW. The slew speed is .49 rpm at 2 X 11.5 KW.

Michael Khoo, general manager, Favelle Favco Cranes USA, said he anticipates more interest in electric tower cranes from his company.

TES Inc.'s Thomas Guzzi and U.S. Crane & Rigging Owner Tom Auringer stand in front of the new Favelle Favco MK440E luffing jib tower crane. TES Inc. is the exclusive North American distributor for Favelle Favco.

"This was the first job that we introduced the electric version," said Khoo. "All of our other models are all diesel hydraulic tower cranes."

Green perception

Khoo said while electric tower cranes are popular, the issue is getting sufficient power to run them.

"If you don't have enough power, the crane will not perform," he said. "The two options in New York are to get power from the city or to use a generator."

Khoo said end users often think that an electric crane is a more "green" option.

"That's actually not true," he said. "If you are using a generator to power the



crane, you will still be using a lot of diesel fuel. But the market perception is that an electric crane is cleaner."

Khoo does think demand for electric Favelle Favco cranes will heighten.

"For us it will be a matter of getting the market used to having an electric Favco crane," he said. ■

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From China to a power plant in Michigan, Barnhart transported water runners over six years.

Utilizing a Demag TC3000 rigged with 138 feet of boom and superlift, the cargo was transloaded to a deck barge.



Water runners

Barnhart Crane and Rigging recently transported its sixth water runner bound for a hydroelectric power plant in Michigan, completing a project begun in 2013.

Barnhart's scope of work included transporting the components from the Port of New Orleans to the final destination, where Barnhart personnel staged them for replacement. The company transported one water runner per year from 2013 to 2018.

Each water runner weighed 300 tons and measured 28 feet in diameter and 16 feet high. Each unit also was accompanied by a wearing ring measuring 24 feet in diameter and 3 feet high.

Arriving by heavy lift vessel from their port of origin in Shanghai, China, the

water runners and wearing rings were offloaded by the ship's gear to a hopper barge for transport to the Port of Chicago.

Barnhart used the hopper barge for movement from New Orleans to Chicago due to a 19-feet-above-water-level cargo height restriction at the Lemont Bridge on Illinois' Des Plaines River.

Barging in

Utilizing a Demag TC3000 truck crane rigged with a 138-foot main boom and full superlift, the cargo was transloaded to a Barnhart deck barge in Chicago, where the company maintains its own fleet of barges.

Barnhart crews then transported the deck barge up Lake Michigan directly to the pumped storage power plant site.

The components were rolled off using

ABOUT BARNHART

Based in Memphis, TN, **Barnhart** has a network of nearly 50 facilities that provide operated crane rental, rigging services, outage planning, specialized solutions for component replacement, industrial storage and national project cargo logistics. Barnhart has a full service engineering group, including a full research and development department.

a 14-line single-wide PSTe Goldhofer for movement through the plant to a 410-ton gantry crane, where they were offloaded and staged for replacement.

The job was overseen by Barnhart's branch office in Monroe, MI.

Barnhart used a hopper barge to move the water runners from New Orleans to Chicago.



Components were rolled off the barge using a 14-line single-wide PSTe Goldhofer.

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NCCCO by the numbers

A statistical review of NCCCO activity in 2018.

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16,500

CCO Recertifications issued:

10,000

Practical audits conducted:

369

Practical test sites
approved in 2018:

507

Practical test sites
in good standing:

1,830



Candidates taking
written exams:

28,000



Candidates taking
practical exams:

27,000



Candidates taking
recertification exams:

9,800



Practical Examiners
accredited:

98

Practical Examiners
currently in
good standing:

835

Practical Examiners
since inception:

2,485

Practical Examiner
Workshops held:

55



Written test
administrations held*:

2,500

Practical test
administrations held:

5,200

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340

CBT candidates tested:

11,000

CBT tests administered:

24,000

Cranes approved for testing:

842

Since inception:

15,825



VCO

VCO registrants in 2018:

3,300

Since inception:

15,000



Industry
events
attended:

Committee
meetings held:

48



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JANUARY BOARD & COMMITTEE MEETINGS



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**Excludes the January Board & Committee Meeting*

Agents do matter

Bill Smith discusses how your insurance agent can make your life easier.

Securing insurance for your crane, rigging, or transport company is probably not your favorite annual task. We get that. Buying insurance is expensive and takes up valuable time. It can also be confusing. Between coverage choices, terms and conditions, claims scenarios, contracts, loss control and risk-management efforts, there's a lot to think about.

The good news, though, is that you don't have to think about it alone. A good insurance agent is there to answer your questions and knows the nuances of insurance – and the nuances of your business.

Jeff Haynes, national heavy construction practice leader for USI, a leading insurance brokerage and P&C consulting company with 150 offices across the country, understands this precisely.

"Heavy construction companies should look for an agent who understands the industry as an industry, and not simply from an insurance standpoint," he said. "They should be able to advise them on critical items like OSHA rules and regulations and ASME standards. They should also help incorporate those rules, regulations and standards into their contracts in order to develop meaningful risk-transfer tools."

In the heavy construction universe, every company, every situation, every need is different. Businesses are located in different parts of the country and companies work on different types of jobs. A good agent knows this, and a good agent also knows exactly how each one of these factors affects your business – and ultimately, your insurance needs, which almost certainly involve contracts.

"A good agent will advise the insured on the proper contract terms and



The right agent can help you control the costs of risk now and in the future.

conditions needed to assume and transfer risk accordingly," said Haynes. "The agent should also be actively engaged in claims strategy, litigation management, and any sort of contract-redrafting that needs to occur."

Experience matters

Of course, good agents are also in the relationship business – and good relationships are born of time and experience. Experienced agents – meaning those who have been around for a while and have done business with other companies like yours – will have high levels of credibility with market partners so that when they submit your information for renewal the underwriter receives a meticulously prepared file that's ready to quote competitively.

"Experience matters," said Haynes. "You can't teach experience. Companies should look for an agent who has extensive references within their particular niche – a crane broker who can dissect the actual scope of work that you are performing at a job site while using the standards and rules that apply to the parties on the job to transfer risk accordingly."

It's important to know that the agent you choose is prepared to answer any questions that arise during the insurance-buying process, but equally important is your agent's ability to properly and strategically advise you through any claims scenarios that may occur. Haynes explains that a typical insurance agent will sometimes advise you on what insurance coverage you need to purchase to fulfill

“ Heavy construction companies should look for an agent who understands the industry as an *industry*, and not simply from an insurance standpoint. ”

JEFF HAYNES, National Heavy Construction Practice Leader, USI

somebody else's contract demands, rather than the other way around.

"That said, when there's an accident and you have the right agent," he explained, "they'll have the knowledge and expertise to work with your carrier, using a network of industry specialists, to navigate to your best result. A good agent will help make sure that all the engineers, adjusters and lawyers working on your claims are well versed in the crane and rigging industry and working together. Having the right agent helps give insurance buyers control of their total cost of risk now and in the future."

When time comes to review your policy for renewal, ask questions and make sure your agent is working for your business' best interest. For an agent referral or more information on available coverage or available agents visit us online – www.NBIS.com or call 866.668.NBIS for more information. ■



THE AUTHOR

Bill Smith executive vice president, NBIS, is an expert on risk management and safe crane operations. He was a member of C-DAC, which assisted writing the OSHA Crane & Derricks Standard.

OSHA Crane & Derricks Standard.

Clarifying the evaluation

Are you ready for OSHA's new crane operator evaluation?

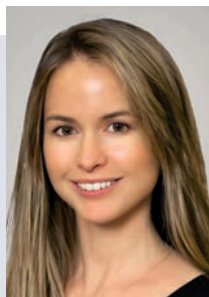
On November 9 (2018), OSHA issued its Final Rule for Operator Qualification. Employers were required to ensure that their operators are certified for the type of crane they will be operating as of November 10 (2018). All new provisions of the 2018 rule went into effect on December 10 (2018), except for the new evaluation and documentation requirements, which take effect February 7 of this year.

In the final rule, OSHA revises crane operator certification requirements from Subpart CC – Cranes and Derricks. First, this final rule removes the requirement that crane operator certifications include the crane's rated lifting capacity. The two testing organizations that have certified the majority of operators have issued certifications by "type" but not "capacity." These certifications, therefore, would not have been valid without a change to the rule – which provides revised language: "by type or by type and capacity."

Second, OSHA is making permanent the employer duty to ensure that operators are competent to operate the equipment safely. While certification ensures an objective baseline of general knowledge of crane operation, it does not ensure that operators know how to operate a particular crane for a specific task. For this reason, OSHA is revising the crane standard to preserve a

“ It means I will now have to send someone (additional) to the jobsite to evaluate this person – prior to them being able to start the work. **”**

JENNIFER GABEL, Owner, JK Crane



OSHA is making permanent the employer duty to ensure that workers are evaluated periodically.

requirement that employers assess the ability of their operators to run the cranes they will be using for the tasks to which they are assigned.

Core issues

The evaluation component must be done by a person who has the knowledge, training and experience necessary to assess operators. Once an operator has passed an evaluation on one piece of equipment, the employer may allow that operator to operate different equipment without further evaluation if the employer can demonstrate that operating the equipment would not require substantially different skills, knowledge or ability to recognize and avert risk.

To that end, the evaluation must be documented and provide the operator's name, the evaluator's name and signature, the date of the evaluation and the make, model and configuration of equipment used in the evaluation. The employer must be able to make the documentation of the evaluation available on the worksite for as long as the operator is employed by the employer (electronic availability

at the worksite is one way to satisfy the requirement). For operators employed prior to December 10 (2018), the employer may rely on its previous assessments of the operator in lieu of conducting a new evaluation of that operator's existing knowledge and skills.

Additionally, while an employer may acquire operator certification through an accredited third-party organization, the employer may also develop its own "employer-audited" program to certify the "operators it employs." The employer-audited programs must meet strict OSHA criteria as noted in the rule.

"So far, I've heard positive feedback based upon what OSHA had originally proposed," indicated Thom Sickelsteel, General Manager at Leavitt Cranes USA. "I think they hit the core two issues: addressing the concerns of being able to have applications for multiple models, and then not having expiration dates on evaluations."

Sickelsteel feels one of the biggest concerns focuses on the actual form – having it available on sight, but he sees additional challenges. "Secondarily, what if you have a temporary hiring situation – where you ramp up really quick for a



requirements



short period of time? How do you actively do that? Though I think employers are starting to work through that.”

Ultimately, he sees the new rule as a benefit. “As an industry, we’ve been required to evaluate operators for a long time, and how that’s done has not been consistent, which has led to regulations and standards to clarify that,” he noted. “I think when OSHA is clear, it makes things safer. I really believe in the ‘trust but verify’ standard – and when companies do that, they’re just better. From an economic standpoint, having a consistent evaluation across the industry is a good standard, because now we all know what that means.”

Jeffery Hammons, president, JHam Group Consulting, echoes Sickelsteel’s optimism. “With my clients and myself, there’s no real problem with it,” he said. “This is what we’ve looked forward to for a long time. The diligence was done. A well-orchestrated procedure was put together, and we were ready for this.”

While Hammons appreciates that some companies will have to adjust and make changes compared to the historical way of certifying and evaluating operators, he believes these changes were needed.

“The technology has advanced so far; the equipment is not a hundred percent mechanical anymore,” he explained. “Now it’s also all the electrical sensors and resistors and everything that powers the operational aides and the safety devices and the elements per manufacturers to determine efficiencies, and oil/engine efficiencies, emission requirements. It’s all needed, but it’s gotten complicated as a result. Once all these things are implemented, operating

a crane has become a little easier – so that part is a good experience for the operator, historically. The change is going to be the diligence required for compliance – but again, once we get into doing that, it’ll settle in very nicely. This is a good thing.”

Change for the better

“Where the challenges might emerge is when we’re really busy,” said Jennifer Gabel, owner of JK Crane, “and we hire operators directly through the union hall. In a lot of situations, the hall would indicate that this person can run a crawler, and if the crawler is already on the jobsite, we would send them straight to the jobsite. But now, my understanding is that they would have to first come to us to be evaluated on that crane – which is tricky if that crane is on the jobsite. It means I will now have to send someone (additional) to the jobsite to evaluate this person – prior to them being able to start the work.”

Gabel admits this is something she will have to manage and work through. “And maybe in those situations, it’s about trying to juggle people within our own company to jobs like that – and hiring a union hall operator for a job where they could come to us first for evaluation and then we send them out. But then, overtime pay could also become a question, and that’s, again, where this gets a little tricky.”

Peter Juhren, vice president of operations at Morrow Equipment, appreciates the new rule for its ability to weed out bad actors now that compliance is mandatory. “The majority of the industry that wants to do it right have already certified their operators,” he emphasized. “The laggards will now have to play catch up, and this will prove to be a challenge.”



PETER JUHREN, Vice President of Operations, Morrow Equipment

Webinar

Navigating OSHA’s New Operator Qualification Rule
2 p.m., February 6, 2019
Register online at www.scranet.org/webinars



SC&RA has developed a sample Qualified Operator Evaluation form for members that can be found at www.scranet.org.

In regards to confusion that has potentially emerged as a result of the old rule versus the new rule, Juhren added, “The original rule was amended by OSHA after CDAC convened, and this is what caused a majority of the delays and confusion. The committee never intended for the industry to test on type and capacity, or to consider certification equaling qualification. The evaluation portion has always been around, even before the 1990s, when the CDAC was proposed. Now it must be in written form and is relatively specific in its requirements. While there are still some gray areas, I feel the new rule is acceptable and compliance should not be overly burdensome.”

Inevitably, Juhren feels that mandatory certification will change the industry and promote a safer environment down the road. “I don’t expect immediate results, but once the effect of mandatory certification takes over in a few years, I feel the industry will be changed for the better.”

“ The majority of the industry that wants to do it right have already certified their operators. The laggards will now have to play catch up, and this will prove to be a challenge. ”

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As we go about exploring ever-enticing ways to attract skilled workers, we may at times get caught up in the moment – following certain trends that encourage us to do just about anything to get their attention.

Take trade shows or employment fairs for example. Most of us can picture in our heads quite a few booths where the companies are literally letting it all hang out – akin to a circus atmosphere – with just about every gimmick imaginable, each booth trying to outdo the other.

But is that what you're after, truly? The potential worker who, like a moth to a flame, was bedazzled by the shiny thing, the spinning wheels, the free swag, the chance at a hole-in-one? After all, what type of person is going to choose your company based on its carnival appeal? Chances are, probably not a serious one.

Truthfully, the serious ones are probably avoiding these situations entirely, and instead searching for companies that offer up real information about real opportunities – not just hourly rates and sign-on bonuses.

These types have likely already done their research on you, and are here because they're informed, want to land a career and seek stability, mutual respect and growth. These types understand themselves and know what they want from an employer. They're going to know where and how to find the right match – and when they do, rest assured, your company is going to be the benefactor.

The ones who fall for the gimmicks are often just looking for a job – often just

adding to the turnover rate, and thus the industry shortage. Unfortunately, many companies don't stop and reassess their process – often ramping up the craziness, thinking they have to do more to make it work ... when, many times, the opposite is true.

A better fit

Successful crane and transport companies recruit with a purpose, period. As Mark Murrell recently pointed out in a piece for FleetOwner, "... Spend time evaluating the strongest and weakest performers in your fleet to develop a clear picture of the characteristics that lead to success. Then think about the values that your company wants to convey. Put all of that together into a package that reflects your unique characteristics through booth branding, messaging and staff presentation. It will definitely attract fewer people, but it will also attract people who are a better fit."

Murrell also pointed to the risks in relying on pay as the sole motivator. "Sure, it's important, but hiring drivers is like selling a product or service – if you have to compete on price, it's generally an admission that there's no differentiator. Some of the best recruiting ads and booths at trade shows never mention pay."

That said, have you won any awards? Make sure to articulate that to interested

candidates. Serious workers want to work for serious companies – outfits that win awards for how serious they are about success. Awards suggest a strong culture and workplace environment, as well as reliable leadership.

You could also encourage your current workers to promote the company on their own social media pages – where other quality workers are likely to be looking. Referral bonuses are always a good method of motivating on-staff workers to do some indirect recruiting for you. And to that end, supply some of your more eager ones with company business cards. Workers usually know, or bump into, other workers.

What about your own company social media presence – or your website? Are they up to date, up to speed ... do they reflect the company fully and productively?

Finally, are you being patient – or hiring without much research on your own end, for fear that you'll lose this person to a competitor? Sometimes, this can be an additional misstep, and only lead you back to square one – in which case, if you do find yourself there, maybe scrap the bells and whistles this time around. ■

“Workers want to work for serious companies.”

CHIEF EXECUTIVE OFFICER



Joel Dandrea

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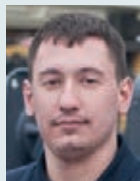
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Empire Crane NJ hires new service manager



Anthony Caltabiano

is Empire Crane's newest addition to the New

Jersey team. As the new service manager, Caltabiano is responsible for overseeing all service operations including customer relations, scheduling service jobs and ensuring all safety protocols are being followed.

"I am confident that Anthony will be an excellent point of contact for our New Jersey and Tri-State area customers," said Paul Lonergan, owner and president.

Caltabiano has worked in the automotive service industry for over 10 years and has years of advanced diesel classes and training. Caltabiano and New York Service Manager Rick Caparco will make technician training a high priority.

"By inviting manufacturers, we can train our service technicians to handle any problems our customers may come across in the field," said Caparco.

Link-Belt Cranes names Curry new training manager

Paul Curry has been named training manager at Link-Belt Cranes. Curry will be responsible for managing and directing all aspects of Link-Belt training programs, including the Preferred Technician Training Program, Master Technician Training Program, sales training, parts training and factory training.

Curry comes to Link-Belt with over 12 years of training

experience in a variety of roles at local and global companies.

His educational background includes a M.S. degree from California State University in Adult Online Training and Learning.

"Link-Belt is now the standard for training in

the crane industry and I am confident that Paul's

experience will continue this success and enhance the program in the years to come," said Bruce Kabalen, manager of marketing and technical communications, Link-Belt. ■



Paul Curry

Pitre joins Select Crane Sales as service mgr.

Karl Pitre has joined Select Crane Sales as service manager of the recently opened Branchburg, NJ location. Pitre

has worked for a number of years within the crane industry in both parts and branch management roles servicing all brands and types of cranes. Pitre has vast experience scheduling service

techs, researching parts requests and maintaining equipment that is for sale or rent. According to Select

Crane Sales, Pitre understands the urgency and requirements of the local market and he is equipped and prepared to keep customers operational, minimizing downtime on

jobsites and ensuring they meet project goals.

"Customers have become accustomed to our fast response time and ability to handle emergency repairs both in the shop and in the field," Pitre said.

Jason MacKenzie, president of Select Crane Sales, said, "Karl is a great addition to the Select Crane Sales team. Karl will do a great job for both Select Crane and our customers in the northeast." ■



Karl Pitre



Five Terex Service Center team members were recently interviewed for an episode of Lifetime Network's "Military Makeover: Operation Career." The employees who were a part of the filming previously served in the U.S. Armed Forces, including the Marines, Army, Navy and Air Force. The show will feature Richard Gunderman, Travis Robinette, Wes Myers, Amber Barrows and Robert "Butch" Beach.



David Chickowski

has been appointed western region vice president

for Manitou North America. In this key leadership role, Chickowski will oversee all sales activities for Manitou, Gehl, Mustang by Manitou and EDGE brands in the western region of the United States and Canada.

HIGHLIGHT

The Marketplace

Dealer Locator

54

Find a dealer/distributor by using ACT's Dealer Locator. The Dealer Locator program now includes an interactive map when viewing on online. Click and see where the dealers are and e-mail or go to their website from your online version. From the printed page, please pick up the phone and call for your crane needs.

Products, Parts & Accessories

62

Operational aids, communication systems, components, controls, software, crane mats and outrigger pads, crane repair, hydraulics, jacks, attachments, personnel baskets, rigging hardware, rollers, slings and chains, tires, winches, wire rope, batteries, braking systems, and new, used and refurbished parts.

Equipment for Sale or Rent

70

Crane, rigging and lifting equipment for sale or rent, new or used.

Safety, Training & Industry Services

72

Training, insurance, inspections, financing, consulting and safety equipment.

Career Opportunities

Employee recruitment and job postings.

Transport & Heavy Haul

73

Transportation permits, freight forwarding, heavy haul and pilot car services.

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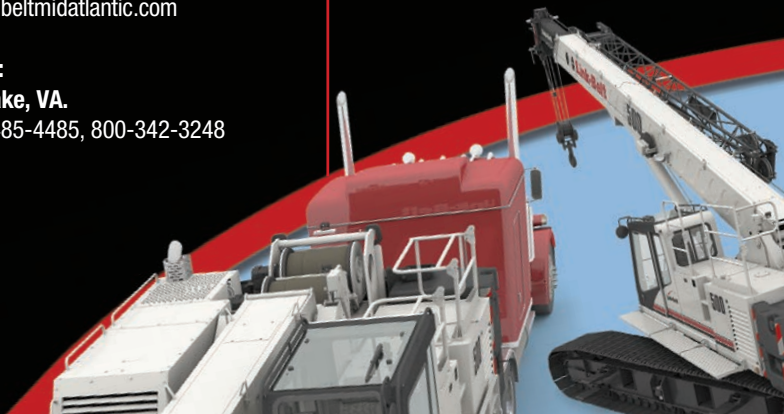
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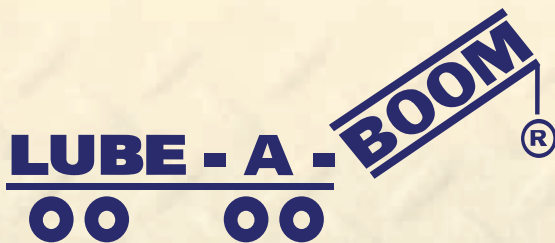
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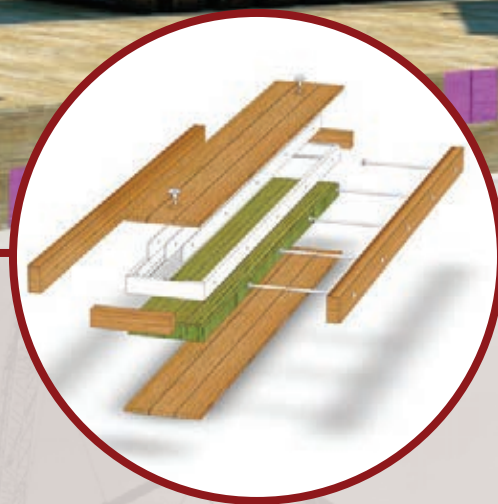
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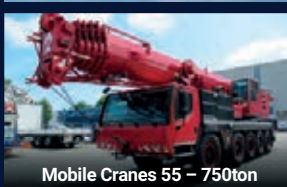
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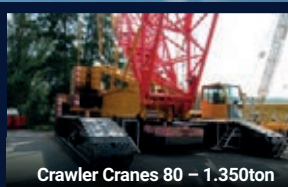
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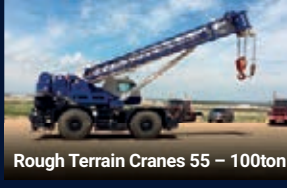
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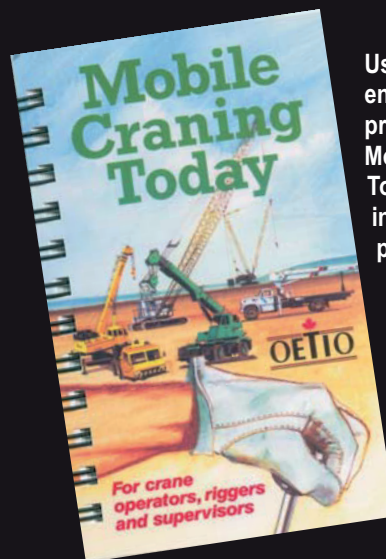
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New year audit

Start the year off with a commitment to continually improve safety.

The new year is here, and it's important you start it off right. So why not implement an audit of your company's safety program?

The basic reason for engaging in a safety-program audit is to ensure that your program is functioning properly and helping you achieve your goal of zero accidents. A proper safety-program audit should be designed to confirm that effective program elements are in place for recognizing, removing or controlling hazards that could unfavorably impact your company's physical and human assets. When audits are done right, they help reduce injury and illness rates, lower worker's compensation costs, empower employees by involving them in activities affecting their own safety and health, increase job satisfaction and make the company more competitive in the marketplace.

What should go into your safety-program audit?

According to online safety training company Vivid, formal safety audits should:

- Be conducted on a regularly scheduled basis,
- Demonstrate the company has made a commitment to safety and is monitoring and enforcing its established safety policy and procedures,
- Be an official part of the company's health and safety program,
- Involve employees, supervisors, middle and upper-level operating management and health and safety professionals, and
- Establish a schedule of safety audits for each workplace and work process.

“ Any type of self-audit to be conducted by (or supervised by) a competent person. ”

THE AUTHOR



Bill Smith, executive vice president, NBIS, is an expert on risk management and safe crane operations. He was a member of C-DAC, which assisted writing the OSHA Crane & Derricks Standard.



Safety audits should be regularly scheduled yearly.

Also note that OSHA requires any type of self-audit to be conducted by (or supervised by) a competent person who is capable of identifying the relevant workplace hazards. According to OSHA, competent persons are employees or management officials who have the training or experience necessary to identify workplace safety or health hazards, given the scope and complexity of the processes under review.

Commit to safety

Here are five ways, courtesy of OSHA, management team members can show their commitment to your safety program.

- 1** Management implements and communicates a written, signed policy supporting the safety and health program.
- 2** Management routinely demonstrates visible commitment to the program.
- 3** Management defines specific goals and expectations for the program, along with plans for achieving the goals.
- 4** Management allocates appropriate resources (funds and time) to accomplish goals and manage the program.
- 5** Management assigns responsibility and accountability for implementing and maintaining the program.

While OSHA does not explicitly require them, a voluntary safety audit programs are a sound business practice that demonstrate a company's commitment to continuous improvement of its health and safety effort.

For a useful safety audit guide, please visit: https://www.osha.gov/shpguidelines/docs/SHP_Audit_Tool.pdf

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