

# ACT

The magazine for the crane, lifting and transport industry

A KHL Group Publication

[www.khl.com/act](http://www.khl.com/act)

Retooled rigging  
for new space  
flight program

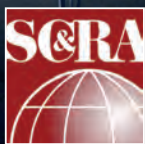
**INTERVIEW**  
Manitex's  
Steve Filipov

**INDUSTRY FOCUS**  
Safety, Training  
& Certification

**PRODUCT FOCUS**  
Articulating  
cranes

**PREVIEW**  
ConExpo  
2020

## Rocket boost



Official domestic  
magazine of  
the SC&RA



# Link-Belt's 120 ton Rough Terrain Crane is off the charts!



Spend time with us at  
**Booth F5211 in  
Festival Grounds**  
Las Vegas, Nevada  
**March 10-14, 2020**



- 81 V-CALC outrigger positions
- Real-time 360° charts
- Live capacity preview mode
- Outrigger position sensing
- Incorporated swing arrest



# 120|RT

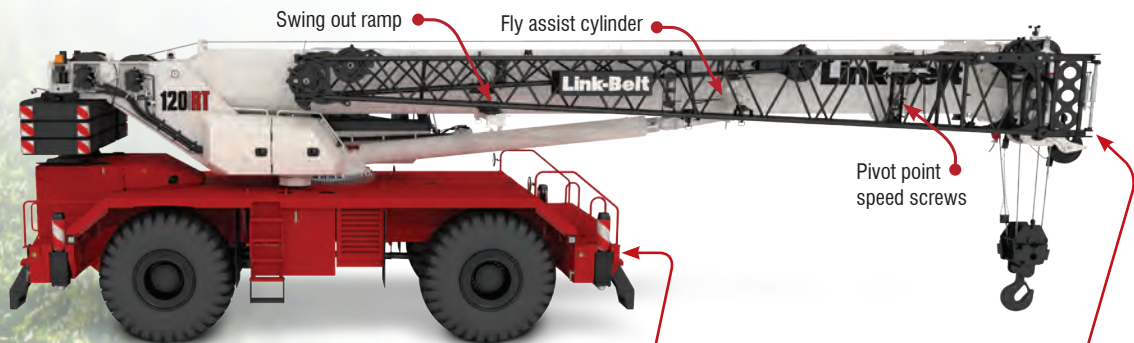
## 120-Ton | 110 mt Rough Terrain Crane

- Strongest pin & latch boom in its class
- Boom Length 38.3-164.1 FT | 11.6-50 m
- Two 16 ft | 4.9 m lattice boom extensions available
- Tip height 262 ft | 79.8 m
- Link-Belt Vision package
- Service in mind with remote mounted filters, fluid checks, and centralized grease & pressure checks



**Transport weight of less than 95,000 lbs | 43 091 kg without counterweight includes:**

- ✓ Main & aux winches with wire rope & cable followers
- ✓ 35'-58' | 10.7-17.7 m 2-piece fly stowed
- ✓ 60 ton hook block
- ✓ 10 ton hook ball
- ✓ Aux lifting sheave
- ✓ Full tank of fuel

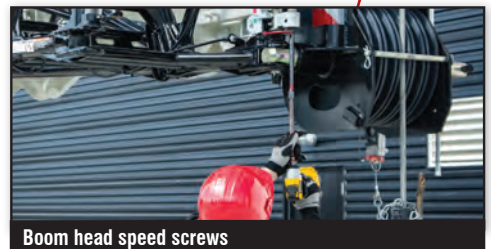


### Take control with Pulse 2.0

- 10" full color touch screen display
- Integrated RCL & ECM data
- Advanced diagnostics and monitoring features
- WiFi enabled for software updates
- Operator customizable



Boom hoist controls on the ground for fly erection.



Boom head speed screws

**Latest, simple, one person fly erection technology minimizes work-at-height!**

- One person operation
- Swing around at 0°
- Minimal ladder climbs
- Control fly assist and boom hoist cylinders from the ground
- Pivot-point & boom head speed screws



# Link-Belt®

## C R A N E S

Lexington, Kentucky, USA | [www.linkbelt.com](http://www.linkbelt.com)

**YouTube**  
Link-Belt Cranes

**f Like us on Facebook**  
Link-Belt Cranes

**@LinkBeltCranes**



# Experience the Progress.



Visit us at:

## **Conexpo Con/Agg 2020**

March 10–14, Las Vegas,  
Nevada, USA

Outdoor Booth:  
Festival Grounds, F5258  
Components Booth:  
South Hall 4, S84231  
[www.liebherr.com](http://www.liebherr.com)



## **Liebherr crawler cranes – LR Series**

- Superior lifting capacities, on-line load chart calculation
- Great variety of boom configurations
- Quick and easy assembly
- Easy and cost-effective transportation
- Derrick equipment for enhanced load capacities

Liebherr USA Co.  
MCCTec Division  
Crawler Cranes and  
Foundation Equipment  
7075 Bennington Street  
Houston, TX 77028-5812  
Phone: +1 713 636 4050  
E-mail: [Crawler.Cranes.USA@liebherr.com](mailto:Crawler.Cranes.USA@liebherr.com)  
[www.facebook.com/LiebherrConstruction](http://www.facebook.com/LiebherrConstruction)  
[www.liebherr.com](http://www.liebherr.com)

# **LIEBHERR**



**EDITORIAL****Editor:**

D. Ann Slayton Shiffler  
e-mail: d.annshiffler@khl.com  
Tel: 512 868 7482

**Assistant editor:**

Hannah Sundermeyer  
e-mail: hannah.sundermeyer@khl.com  
Tel: 913 259 8060

**International editor:**

Alex Dahm  
e-mail: alex.dahm@khl.com

**Assistant international editor:**

Christian Shelton  
e-mail: christian.shelton@khl.com

**SC&RA correspondents:**

Tim Hillegonds, Mike Chalmers

**PRODUCTION****Production director:**

Saara Rootes  
e-mail: saara.rootes@khl.com

**Production manager - KHL Americas:**

Brenda Burbach  
e-mail: brenda.burbach@khl.com

**Senior production executive:**

Anita Bhakta  
e-mail: anita.bhakta@khl.com

**Production assistants:**

Charlotte Kemp  
e-mail: charlotte.kemp@khl.com

Maria Clarke  
e-mail: maria.clarke@khl.com

**Design manager:** Jeff Gilbert

**Events design manager:** Gary Brinklow

**Print & digital designer:** Mitch Logue

**Designer:** Jade Hudson

**CIRCULATION****Circulation manager:**

Helen Knight  
e-mail: helen.knight@khl.com

**Office manager:**

Samantha Head  
e-mail: samantha.head@khl.com

**Fax subscriptions to 312 626 2115**

**SALES**

**Vice President, Sales**  
**MATT BURK**

205 W. Randolph St.,  
Suite #1320, Chicago, IL 60606  
Tel: 312 496 3314  
Cell: 773 610 9467  
e-mail: matt.burk@khl.com

**National account manager**  
**BEV O'DELL**

1000 SW Rainbow Lane  
Blue Springs, MO 64015  
Tel: 816 886 1858  
Cell: 816 582 5253  
e-mail: bev.odell@khl.com

**DIGITAL MEDIA DIRECTOR**

Peter Watkinson  
e-mail: peter.watkinson@khl.com

**CHIEF EXECUTIVE OFFICER**

James King

**CHIEF FINANCIAL OFFICER**

Paul Baker

**CHIEF INFORMATION OFFICER**

Paul Marsden

**PRESIDENT & CHIEF OPERATING OFFICER**

Trevor Pease

**KHL GROUP AMERICAS LLC**

3726 E. Ember Glow Way,  
Phoenix, AZ 85050  
Tel: 480 659 0578  
Fax: 480 659 0678  
e-mail: americas@khl.com

# A clean slate

**T**he start of a new decade. I'm still trying to wrap my head around the fact that it's 2020, and another year filled with tradeshow, travel and plenty of cranes has come and gone. As I sit and reflect on everything from the last 12 months, I'm especially thankful to have met all the new industry faces and enjoyed quality time with familiar ones.

That being said, what better way to fight the post-holiday blues than by planning your trip to Las Vegas with the help of our ConExpo preview starting on page 12. It won't be long before we're all touching down in Nevada for North America's largest construction trade show. It's safe to say it's probably time to start breaking in your walking shoes.

The subject of one of the biggest headlines of 2019, Steve Filipov and I sat down for an exclusive interview this month. The newly appointed chief executive officer and director for Manitex International is jumping into business. Following the completion of the sale of Demag cranes to Tadano on August 1, 2019, Filipov left Terex to start his new role with Manitex. I think you will find his responses insightful and engaging, as he looks to the future of the company with a contagious sense of optimism.

In the spirit of resolutions and renovations, sneak a peek at our latest addition to ACT, dubbed Legendary. Flip to page 74 to check out this new column that focuses on people, equipment and companies with an industry "legendary" status. Join us on a blast from the past as we look at the Link-Belt LS-98 crawler crane, one of the most revered machines in American construction equipment.

This issue also features an impressive cover story starting on page 34 by photographer Julian Leek. Leek was granted exclusive access to the restricted areas of the Kennedy Space Station during a lift operation.

Finally, Hannah Sundermeyer rounds up the latest in training technology with an update on crane operator certification from NCCCO Foundation CEO, Graham Brent. I also spoke to Eddy Kitchen of Kitchen's Crane & Equipment to break down the risks and rewards of equipment auctions. See page 32 for all the details.

ACT January is packed with must-reads. Ease back into the swing of things by relaxing and thumbing through this issue. We would love to hear what you think.

Wishing a Happy New Year to you and yours. Don't be a stranger! Drop me a line with your latest and greatest projects, people and products.

**D. ANN SLAYTON SHIFFLER****Editor**

KHL Group Americas LLC,  
30325 Oak Tree Drive, Georgetown TX 78628.  
Tel: 512 868 7482, e-mail: d.annshiffler@khl.com

SUBSCRIPTIONS: Annual subscription rate is \$345. Free subscriptions are given on a controlled circulation basis to readers who fully complete a Reader Subscription Form and qualify under our terms of control. The publisher reserves the right to refuse subscription to non-qualified readers. www.khl.com/subscriptions/act

**KHL CRANE PORTFOLIO****ACT100****ACTTRANSPORT50**

## KHL CraneMarket

The online market place for buyers and sellers of used cranes  
www.khlcranemarket.com

## KHL WorldCraneweb

Global news from International Cranes and Spectacular Transport and American Cranes & Transport  
www.worldcraneweb.com

## KHL WorldConstructionweek

The latest global construction news from International Construction and Construction Europe  
www.worldconstructionweek.com



**Subscribe to our tablet edition by visiting** <https://play.google.com/store/apps/details?id=com.magazinecloner.americancranes> **or** <https://itunes.apple.com/gb/app/american-cranes-transport/id571668813?mt=8>



[www.twitter.com/khlgroupact](https://www.twitter.com/khlgroupact)



[www.facebook.com/AmericanCranesandTransport](https://www.facebook.com/AmericanCranesandTransport)



[www.youtube.com/khlgroup](https://www.youtube.com/khlgroup)



**Instagram:**  
[@americancranesandtransport](https://www.instagram.com/americancranesandtransport)





# AT LGH WE ARE EXPERTS IN LIFTING AND HOISTING

## TEST, INSPECT, CERTIFY, RENT, REPEAT

LGH sets the bar when it comes to equipment safety and reliability. With vertical and horizontal proof testing equipment, certified and experienced technicians on site at each of our rental locations and reliable processes in place for each piece of gear in our fleet, no equipment is safer or more reliable than equipment rented from LGH. With 23 North American Rental Centers, the gear you need is just a phone call away.



THE LIFTING EXPERTS

Call: (800) 878-7305 Email: [Rentals@RentLGH.com](mailto:Rentals@RentLGH.com) Visit: [www.RentLGH.com/ACT](http://www.RentLGH.com/ACT)



LGH Global In Operation Worldwide [www.lghglobal.com](http://www.lghglobal.com)





PHOTO: © JULIAN LECK

**PaR Systems has a team at the Kennedy Space Center taking part in a lift-training program for NASA's SLS rocket. See our Site Report on page 34.**



ISSN 1555-1830



Circulation is audited by BPA Worldwide

© Copyright KHL Group Americas LLC 2019. All rights reserved. Reproduction in whole or in part without written permission is prohibited.

American Cranes & Transport makes every effort to ensure that editorial and advertising information carried in the magazine is true and accurate, but KHL Group Americas LLC cannot be held responsible for any inaccuracies and the views expressed throughout the magazine are not necessarily those of the publisher. KHL Group Americas LLC cannot be held liable for any matters resulting from the use of information held in the magazine. The publisher is not liable for any costs or damages should advertisement material not be published.

American Cranes & Transport is published 12 times a year by KHL Group Americas LLC, 3726 East Ember Glow Way, Phoenix, AZ 85050. This issue is mailed on January 3, 2020. SUBSCRIPTIONS: Annual subscription rate is \$345. Free subscriptions are given on a controlled circulation basis to readers who fully complete a Reader Subscription Form and qualify under our terms of control. The publisher reserves the right to refuse subscription to non-qualified readers.



Official domestic magazine of the SC&RA



Produced in cooperation with the NCCCO



## PREVIEW: CONEXPO 12

Changes are in store for ConExpo 2020 slated for March 10-14, 2020 in Las Vegas, NV.

## RIGGING REVIEW 19

It's a new year and time to take a new look at the bevy of products offered in the SC&RA store.



## INTERVIEW 20

D. Ann Shiffler and Hannah Sundermeyer sit down with Steve Filipov, new chief executive officer and director for Manitex International, to discuss his future plans for the company and his business acumen.



## 42 RISK MANAGEMENT

Bill Smith discusses how having the right contract language gives you four layers of protection.

## 45 SC&RA COMMENT

Digital criminals have their eyes on your fleet.

## 46 SC&RA NEWS

SC&RA begins 2020 with a new insurance buildup.

## MARKETPLACE

The most comprehensive listing of crane and transport services and equipment in North America.

## 53 TRAINING DIRECTORY

## 54 DEALER LOCATOR

## 61 PRODUCTS, PARTS AND ACCESSORIES

## 69 EQUIPMENT FOR SALE OR RENT

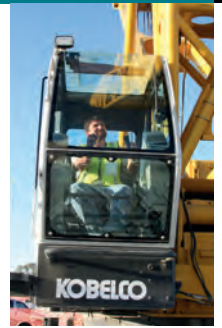
## 73 SAFETY, TRAINING & INDUSTRY SERVICES

## CAREER OPPORTUNITIES

## 73 TRANSPORT & HEAVY HAUL

## INDUSTRY 24 FOCUS: SAFETY, TRAINING & CERTIFICATION

Trends in tech are paving the way for the future of equipment operator training. *Hannah Sundermeyer* reports.



## INDUSTRY FOCUS: SAFETY, TRAINING & CERTIFICATION 27

NCCCO updates frequently asked questions about OSHA's Final Crane Rule.

## PRODUCT FOCUS: ARTICULATING CRANES 30

ACT surveyed some of North America's leading manufacturers about their latest articulating crane products on today's market. Check it out!



## INDUSTRY FORUM: AUCTIONS 32

Used cranes and transport equipment purchased through auctions can bring immediate value to buyers.

## SITE REPORT: RIGGING 34

NASA is performing a lift-training program for the new SLS Pathfinder Core Stage rocket. *Julian Leek* and *Mary Kanian* report exclusively for ACT.



## LEGENDARY 74

The Link-Belt LS-98 crawler was one of the most revered cranes in American construction.

## DEPARTMENTS

### 8 NEWS

### 17 BUSINESS NEWS

### 39 NCCCO NEWS

### 50 SUBSCRIPTIONS

### 51 PEOPLE/EVENTS





■ A Potain Igo 50 self-erecting crane is repairing more than 4,000 square feet of damaged roof on the Sant'Orsola, a 14th Century ex-monastery in Florence, Italy. This location is thought to be the final resting place of Leonardo da Vinci's Mona Lisa.

■ HBC-radiomatic declared its new Hebron, KY facility officially open at an event in September 2019. The radio remote control manufacturer staged the open house at the site where an additional 13,000 square feet of floor-space was added. More than 200 visitors, including guests from as far away as India, joined the celebrations spanning two days.

## Falcon Equipment becomes Palfinger distributor

**B**ergheim, Austria-headquartered Palfinger Group has expanded its business in North America through a partnership with British Columbia, Canada-based heavy equipment sales, service and rental firm Falcon Equipment. Falcon Equipment will distribute Palfinger's knuckleboom cranes, material handling cranes, forestry and scrap cranes, aerial lift trucks, hooklifts, rail cranes and truck-mounted forklifts. The partnership will cover the four Canadian provinces of British Columbia, Alberta, Manitoba, and Saskatchewan, as well as



Falcon Equipment will distribute Palfinger's knuckleboom cranes, as well as other Palfinger product lines in North America.

the Yukon territory. Palfinger hopes the partnership will boost its business in North America. Since 2018 Palfinger has seen record growth rates in the region, which currently accounts for over 20 percent of its revenue. Falcon Equipment was previously the official distributor for Hiab, but with its Palfinger partnership, Hiab

will no longer be represented. However, Falcon will continue to support and service all makes and models.

"I am happy that we will be working together from now on," said Andreas Klauser, CEO of Palfinger. "This cooperation will enlarge our footprint in Canada by a couple of sizes."

## Irving Equipment adds two Groves to growing fleet

Canada-based Irving Equipment has added two Manitowoc cranes to its fleet. The company acquired a 250-ton GMK5250L all-terrain crane featuring a 230-foot boom and a 100-ton TMS9000-2 Grove truck-mounted crane from dealer Shawmut Equipment.

"We are now better equipped to provide the best lifting solution for our clients," said Victor Murty, operations manager, Irving

Equipment. "Now we have even more lifting options. This will help us compete for and win jobs we couldn't have previously."

The company, which currently has an equipment fleet of around 60 percent Manitowoc cranes, said the new models would allow it to provide two-hook operations. The TMS9000-2 features a six-section boom and counterweight removal system.



Irving Equipment's new Grove TMS9000-2 truck-mounted crane.

## New features added to iCraneTrax software

iCraneTrax, the fleet and personnel management software from A1A Software, has released a new fleet map feature that provides a visual overview of the key service items for fleets. Green, yellow, orange and red icons represent a progressive display of service intervals for each unit.

In addition, with user permissions enabled, both Link-Belt and Manitowoc dealers can access the telematics interface to schedule maintenance intervals for their

customers based on usage, a convenient option for fleet managers. All documentation can also now be saved as PDF files for cohesive document management.

**iCraneTrax was updated with a new fleet map and interface.**

### Fleet Map

	ID Number	Name	Engine Hours
AT 120	AT 120	AT 120	279
BT 22	BT 22	BT 22	9,002
BT 22	BT 22	BT 22	27,775
BT 45	BT 45	BT 45	2,995
2017 Ford Explorer	Ford Explorer	Ford Explorer	471
250 Ton AT	Grove GMK5250L	Grove GMK5250L	394
Fleet Group	Grove GMK5250L (03023191)	Grove GMK5250L	146
RT110	Link-Belt 110 RT	Link-Belt 110 RT	673
LC 110-1	Link-Belt 110 HSL	Link-Belt 110 HSL	146
LC 110-1	Link-Belt 110 HSL	Link-Belt 110 HSL	2,616
LC 250-1	Link-Belt 250 series 2	Link-Belt 250 series 2	0
AT 275	Link-Belt ATC-3225	Link-Belt ATC-3225	925
TC 75	Link-Belt HTC-8000 Series II	Link-Belt HTC-8000 Series II	85
TT 90	Link-Belt HTC-8000	Link-Belt HTC-8000	0
TC1400	Link-Belt TCC-1400	Link-Belt TCC-1400	505
Polly Tractor	Link-Belt TCC-500 (55K94079)	Link-Belt TCC-500	0
TOK-056	Peterbilt Truck	Peterbilt Truck	108
TC-90	TC 90	TC 90	3,399





**The heaviest lift executed was a 65-ton nacelle that measured 354 feet with a 66-foot radius.**

## Sarens installs wind turbines in Canada

Sarens installed several wind turbines for the Whitla Wind Project in Alberta, Canada on behalf of client Borea. The renewable energy project has the potential to generate enough electricity to power nearly 70,000 Canadian homes each year.

For the operation, the Sarens crew offloaded all wind turbine components including the tower sections, nacelle, blades and hubs. The hubs measured 344 feet, with 446-foot blade rotor diameters. The crew worked to ensure the proper placement of turbine components from offload so that the main cranes could lift them at the radius required.

To successfully lift and install the V-136 Vestas wind turbines, Sarens utilized two LR-1600 cranes and a CC-2800 crawler crane. The crane sizes were selected based on the scope of work, and the equipment was chosen for easy derigs and the best ground pressure for crawling from tower to tower.

# Liebherr crawler loads oil platforms

Mexican crane and heavy haulage contractor Eseasa used its Liebherr 3,000-ton capacity LR 13000 crawler crane to load seven oil platforms onto barges at the port city of Tampico, Mexico, on the Gulf of Mexico, for Mexican oil group Pemex.

The platforms weighed up to 1,200 tons and were positioned on the barges using a crane radius of up to 125 feet. Eseasa said it saved time using the large crawler compared to an alternative method previously employed which utilized SPMT and jack-up systems. With SPMT and jack-up systems, the load-in took around 18 hours whereas with the LR 13000, the load-in took three hours. The use of SPMT

and jack-up systems took longer because they required the barge to be positioned at a 90-degree angle to the quay and held in place by several tugs. This also meant that the waterway needed to be closed, adding to the costs incurred by Eseasa.

Using the crawler crane meant that tugs were required for a shorter time than with the alternative technique and smaller barges could be used, as well, since they did not have to accommodate the heavy SPMT, further reducing costs.

"Loading the massive components using the Liebherr LR 13000 worked perfectly and is significantly more economical than our



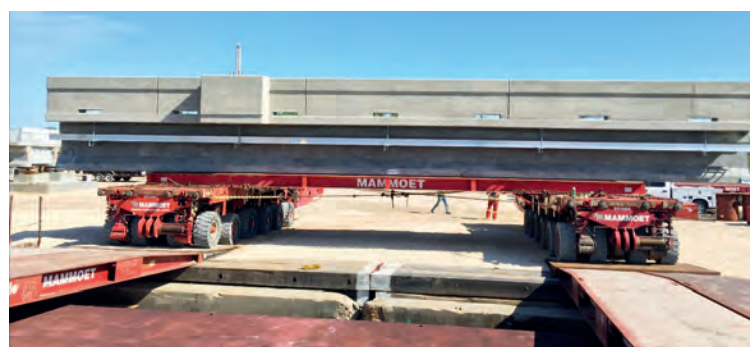
**The barge can be positioned alongside the quay for loading the structural steelwork weighing up to 1,200 tons.**

previous procedure," said Aldo Santos, who owns Eseasa along with his four brothers. "The extremely short time required is extraordinary." ■

## Mammoet uses SPMTs as cantilever for bridge repair

Mammoet's crews have successfully set 108 total shoulder spans on the southbound lanes of the New Orleans Causeway in Louisiana by means of SPMTs used as a cantilever set atop a barge. The shoulders are located between the crossovers, giving motorists and first responders a safe place to pull over when there are breakdowns or accidents. This endeavor is considered the most significant improvement to the almost 24-mile-long bridge since the second span was completed in 1969.

Because the space between the bridge columns was too narrow for the barge itself, Mammoet's team devised a plan using the trailers as a cantilever, driving them 15-20 feet off the end of the barge to reach the location where they could be properly secured.



**The Mammoet team rolled the shoulder spans onto barges to be set.**

Counterweight was placed on the opposite side of the trailers to balance the load. This method allowed for the installation of an average of four spans measuring 56 feet long per day, instead of the planned three spans per day.

By utilizing the trailers on a barge, there was no need to shut down the causeway during execution. Traffic was able to move as usual with no disruption, proving the

method to be a more efficient solution than placing the spans using a crane set in the lanes above. The crew is currently executing placement of an additional 72 spans on the northbound lanes, with an expected completion in early 2020. Mammoet was first approached for this project because of previous bridge repair experience with Boh Bros. Construction following Hurricane Katrina in 2005. ■







■ Trasca Group has become the exclusive dealer for Manitowoc's Grove and National Crane brands in Mexico.

■ Central Contractors Service, a member of the ALL Family of Companies, is unifying its operations into a single, larger yard. The headquarter expansion provides a spacious 12 acres to contain a more modern logistics hub and operations department, a storage yard and state-of-the-art offices and maintenance facilities, the company said.



■ Cheetah Chassis recently delivered three custom-made crane counterweight chassis that Greiner Crane Division assisted in customizing. Seth Dougherty of the Greiner Crane division worked directly with Cheetah Engineers to design and build the chassis and was assisted through the process by Cheetah Chassis dealer Utility Keystone Trailer Sales in Manheim, PA.



# NCCCO Foundation publishes Directory

The NCCCO Foundation announced the launch of a web-based tool designed to help employers navigate OSHA's rules on crane operator qualifications. The directory of accredited crane operator certification programs entitled the *Who's Accredited? Directory* is the result of the NCCCO's Foundation's research and education initiative designed to enhance safety and encourage compliance with federal and state safety rules and regulations.

The *Directory* is designed to take the guesswork out of determining whether or not a certification organization's programs are accredited by a nationally recognized accrediting body, as OSHA requires in 29 CFR 1926 Subpart CC. By using the

NCCCO Foundation's website (<http://bit.ly/whosaccredited>), employers can check the accreditation status of any certification organization at any time.

The *Directory* also provides a detailed listing of each accredited certification program offered by the accredited certification organizations, as well as a direct link to the listing maintained by the two accrediting bodies that OSHA recognizes: ANSI and NCCA.

"It's become clear from the questions we have been receiving from employers and others in recent months that there is confusion in the industry over which certification bodies have earned accreditation and



**The NCCCO Foundation has launched a web-based tool designed to help employers navigate OSHA's rules on crane operator qualifications.**

which have not," said Graham Brent, CEO of the NCCCO Foundation. That's important, he said, because not only is a certification body that has not been accredited not recognized by Federal and State authorities, neither are the certifications it issues.

Like certification, accreditation is not a "one-time" event. Just as a certification lasts only a certain amount of time, accreditation is reviewed on a regular basis by the accrediting organization, usually annually.

## Speakers confirmed for second TCNA conference

The first speakers for the second Tower Cranes North America (TCNA) conference have been announced. Topics covered will include wind monitoring, trends in tower crane use, insurance and risk mitigation and tower crane

inspections. The conference – which is for tower crane users and owners, including rental companies, contractors, OEMs and dealers – will be held June 22-23, 2020 in Miami, FL. It is organized by KHL Group and its magazines *American Cranes and Transport* (ACT) and *International Cranes and Specialized Transport*. The SC&RA is the event partner.

Speakers and topics confirmed are: Wind monitoring & logging systems for tower cranes by Eduardo Estelles, managing director,

Windcrane; Tower crane insurance and risk mitigation, Jeff Haynes, National Construction Practice Leader, USI Insurance Services; Trends in tower crane use, Stephen Jehle, president, P&J/Arcomet; Legislation impacting tower cranes, Mike Vlaming, owner, Vlaming & Association; and a roundtable on crane inspections moderated by Chris Smith, corporate service manager, Morrow and JR Moran, director of crane operations, Brasfield & Gorrie (B&G).

The event will start on the evening of June 22 with a drinks reception. The full-day conference is on June 23. For more details see [www.khl-tcna.com](http://www.khl-tcna.com).

**The first TCNA was held in June 2018 and was attended by more than 300 tower crane professionals from North America and worldwide.**





## HIGHLIGHTS

■ SCHEUERLE Fahrzeugfabrik has been named "Green Technology Innovation Leader" in three categories by the renowned F.A.Z. Institute. The award is based on the analysis of a company's patents that relate to green technologies.

■ Tandemloc has officially opened their new Tulsa, OK branch. The company engineers and manufactures solutions for unique lifting applications and the mobilization of containers.

Lift & Move USA is an industry-led initiative to address the skills gap in the crane, rigging and specialized transport sectors. The program is aimed at high school and college students as well as veterans, and events will typically be attended by between 250 and 700 students.

In 2020, a Governing Committee will oversee



Attendees at Lift & Move events are given the opportunity to try their hand at a variety of on-site operations and equipment demonstrations.

# Lift & Move gears up for 2020



Lift & Move USA activities, which will function as an independent activity under the SC&R Foundation. This provides the benefit of not-for-profit status, enabling contributions to Lift & Move USA to be tax deductible through SC&RF. The change also strengthens alignment with SC&RA and SC&RF strategic plans, which places even more priority on continuing workforce development initiatives.

In addition to regular

activities, Lift & Move USA will also participate in AEM's Workforce Solutions Area at ConExpo-Con/Agg in March. Industry visitors will take away best practice ideas from what will be an interactive workforce pavilion and student visitors will learn about the industry.

## DUAL LINE TRAILER THP/DC TAILORED TO MEET AMERICAN REQUIREMENTS

### THE VEHICLE AT A GLANCE

- » Reduced transport time widening under load while rolling
- » Safety first and foremost operation (widening, levelling, steering) via wireless remote control
- » Low maintenance and long service life new ideas combined with proven ball bearing race ring technology



WWW.GOLDHOFER.COM

# Goldhofer



MADE FOR YOUR MISSION



# All eyes on Vegas

Changes are in store for ConExpo 2020 slated for March 10-14, 2020 in Las Vegas, NV.

## EVENT DETAILS

ConExpo-Con/Agg is North America's largest construction trade show representing asphalt, aggregates, concrete, earthmoving, lifting, mining, utilities and more.

### WHEN

March 10-14, 2020

### WHERE

Las Vegas, NV

### SHOW HOURS

Tuesday - Friday: 9 a.m. to 5 p.m.;

Saturday: 9 a.m. to 3 p.m.;

### REGISTRATION

Open now. To register for a badge, purchase education and book a hotel room, visit [www.conexpoconagg.com/visit/registration-and-pricing](http://www.conexpoconagg.com/visit/registration-and-pricing). Early bird pricing deadlines are January 17, 2020. The advance Price deadline is March 9, 2020. Standard pricing begins March 10, 2020.



## FREQUENTLY ASKED QUESTIONS

[www.conexpoconagg.com/visit/attendee-faq](http://www.conexpoconagg.com/visit/attendee-faq)

**T**he big headline for ConExpo 2020 is the changes that have taken place at the Gold Lot, where historically the cranes and heavy lifting machines have been exhibited. In all actuality, the Gold Lot is no longer the Gold Lot.

Last year, AEM broke the news of the addition of the Las Vegas Festival Grounds to the 2020 show. The Festival Grounds are located on the Las Vegas Strip adjacent to the Circus Circus Hotel and will replace the space lost in the Las Vegas Convention Center's Gold Lot, which has become part of the convention center's expansion project.

"AEM is very excited about expanding the show footprint of ConExpo-Con/Agg," said Dana Wuesthoff, vice president of exhibitions and event services, AEM. "In the meantime, the ConExpo-Con/Agg show team is working with show planning committees to develop a comprehensive

plan to ensure coordination between the convention center and the Festival Grounds."

"We see the addition of the festival grounds as a positive solution to the ever-increasing need for event space, and we are committed to working on the behalf of exhibitors for the success of ConExpo-Con/AGG," said Mary Erholtz, show chair and vice president of marketing for Superior Industries.

Ingo Schiller, president of Tadano America, believes the new location will be an improvement.

"The 2020 ConExpo will have a change in the location for many of the crane industry exhibitors," Schiller said. "The new location is being done out of necessity due to construction in the Gold Lot," he added. "AEM has spent many months and hundreds of man-hours communicating with and working with the exhibitors to address their concerns and ensure that the new location will even better serve the exhibitors and attendees that have an interest in the crane industry products. I believe that this new

location will represent an improvement to facilities, logistics and both exhibitor's and attendees' experience at the show."

Bruce Kabalen, director of marketing communications at Link-Belt is optimistic about the changes.

"With the expansion of the Las Vegas Convention Center project, AEM's show management provided its former Gold Lot exhibitors the best, of some not great, alternatives," said Kabalen. "With the lifting product concentration group still together in the new Festival Grounds lot, Link-Belt expects our customer experience to be the same as past shows. Crane dealers and customers will migrate to our exhibit regardless of our location. The burden will be on the show organizers to connect the attendees with other parts of the show, which we all hope will be met."

The 2020 show connected campus will have expanded transportation, attendee experiences and registration locations. Features will include multi-site drop off locations for shuttles, complimentary monorail passes, golf cart shuttles and various other transportation options.







The addition of the Festival Grounds is a solution to the increasing need for event space. Most of the crane manufacturers will be located at the new location.

## Getting around

Badges include a three-day unlimited monorail pass that is easy to use. Just scan the badge QR code at the Monorail gate. Badges gives access to the shuttle service that runs both between the Las Vegas Convention Center and the Festival Grounds as well as all official ConExpo-Con/Agg & IFPE 2020 hotels.

There will be numerous locations to pick up badges when arriving in Las Vegas including the airport, several hotels and three locations at the show grounds. Attendees will receive a communication prior to arrival at the show which will list all badge pick up locations.

**HOTEL SHUTTLE SERVICE.** Booking your rooms through the show hotel block gives you access to free shuttle service, saving time and money on travel. Shuttle service is available between the Las Vegas Convention Center, the Festival Grounds and all official show hotels (with exception to hotels located within walking distance of convention center and/or the festival grounds). Shuttles will operate during peak hours on the official show days of

March 10 through 14.

**MONORAIL.** The Las Vegas Monorail has several stops near the show to get you where you need to go. Check out the schedule and routes.

**TAXI, UBER OR LYFT.** Drop-off and pick up locations have been designated throughout the show. See the transportation map to view drop-off locations at the show.

**PARKING.** There is limited parking near the show. It is suggested to take advantage of our hotel shuttle service, monorail, taxi or other rideshare services.

**FREE SHUTTLE SERVICE.** AEM is providing shuttle service throughout the show.

**GOLF CART AND PEDICAB SERVICE.** Watch for these around the show campus and if seats are available, hop on. The service is free.

## International guests

Exhibitors and attendees from around the world attend ConExpo, and AEM has set up group hotel packages expressly for international guests. Groups of 10-plus can reserve hotel packages at the lowest rates and the official registration and housing provider, Experient, can take care of all travel plans. Hotels participating in the international packages by availability include the Aria, Bally's, Circus Circus, Cosmo, Encore, Excalibur, Flamingo, Harrah's, Luxor, Mandalay Bay, MGM, Mirage, New York New York, Paris, Park

MGM, Planet Hollywood, Signature, Treasure Island, Tropicana, Vdara, Venetian, Westin and Wynn.

Interpreters will also be available within the International Trade Center (ITC) Room N250.

## Educational offerings

The latest topics and industry trends are grouped into 10 tracks. SC&RA and NCCCO Foundation are the hosting associations for some 13 crane and aerial lift seminars that will be held Tuesday through Friday of the show.

There are three levels of passes including an All Access Pass that gives access to the show and access to all education sessions. The All Access Pass Plus includes access to the show, all education sessions and a USB with most session recordings. There is also an À la carte option that does not include access to the show and must be purchased separately.



**2,800 EXHIBITORS**



**2,500,000 SQUARE FEET**



**150 EDUCATION SESSIONS**

STATS





# Stronger Together

Diana, business manager

Robert, parts specialist





TOGETHER  
WE RISE

CONEXPO  
2020  
F-8004

tadanoamerica.com

Mark, crane operator

Angela, engineer

Chris, sales agent

Dennis, customer service

Richard, training manager

José, engineer

What happens when you combine the strength of Tadano and the innovation of Demag with the power of your business? You get the perfect combination of our products, technology and support, and your expertise and know-how. Tadano Group is dedicated to lifting your dreams by building on each other's strengths.



**TADANO**

**DEMAG**  
TADANO GROUP

 TADANO

**MANTIS**  
CRANES



# KOBELCO

[WWW.KCMU-CRANES.COM](http://WWW.KCMU-CRANES.COM)



**- Visit Us -  
Festival Lot  
Booth: F8338**





Share prices rallied as 2019 drew to a close, a common seasonal pattern.

The question now is how will 2020 unfold?

**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.**

# The year ahead

As is often the way, stock markets rallied towards the end of last year. This rise in share prices often carries over into the first few weeks of the new year. Reality usually dawns towards the end of January when financial results are published and it often becomes clear that companies have become over-bought.

As this month's graph illustrates, the various stock market indexes are up between 10-20 percent for the last 12 months, and the ACT Heavy Equipment Index (HEI) for equipment manufacturers' shares has performed in line with widely watched indicators like the Dow, NASDAQ and S&P500.

Among the key information released with the next round of financial results will be companies' outlooks for the following year. As far as global construction equipment markets are concerned, the expectation for 2020 is that sales will decline. According to specialist market research

and forecasting company Off-Highway Research, sales of equipment peaked in 2018 at a record level. There was a slight decline in 2019, but sales were still strong, making it the second-best year on record.

The downturn is expected to be more pronounced in 2020, with most earthmoving equipment markets around the world expected to contract. It may be a different story in the crane segment, as the cycle for this type of equipment looks to be running a year or two behind that of the earthmoving sector.

Overall, the heavy equipment market is expected to fall in 2020, and with it manufacturers' revenues. It is likely that share prices will fall too. The most important metric for share prices is profitability and it is difficult to keep margins high if revenues are falling.

OEMs are likely to shed jobs to keep their costs under control and maintain profits as best they can. This cycle looked to have started in

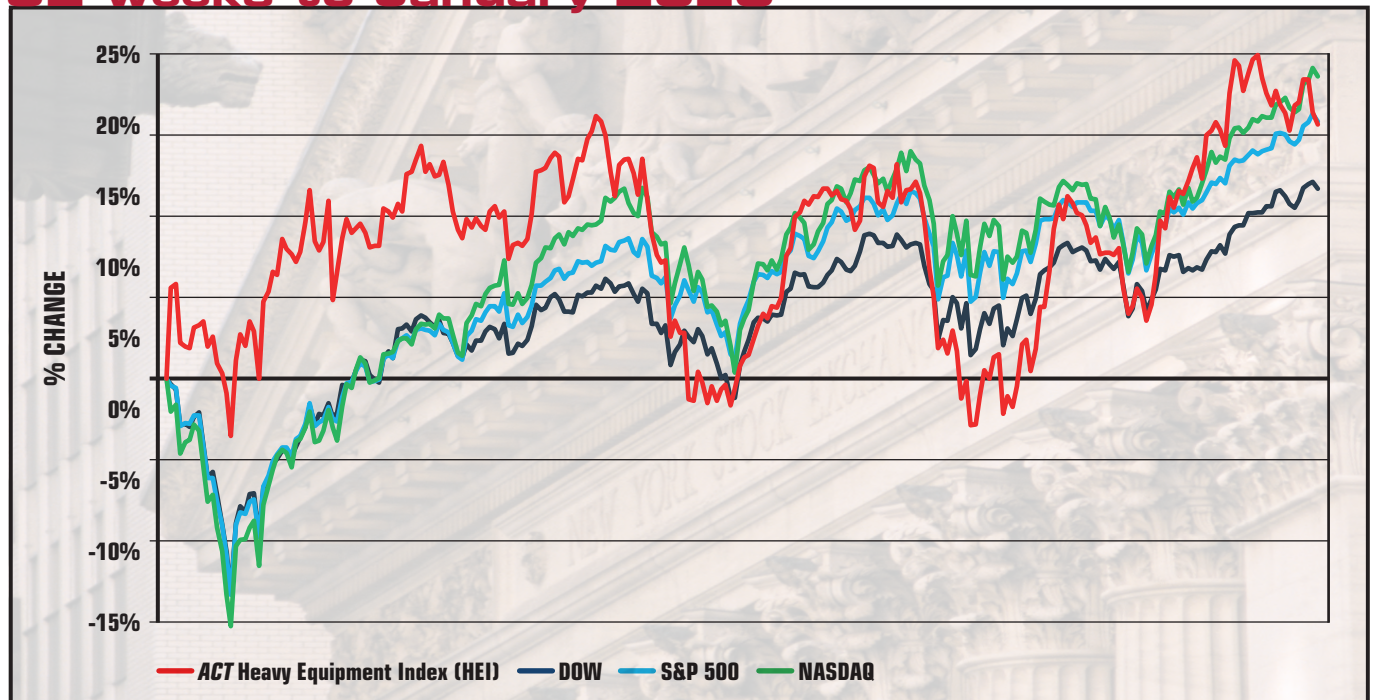
the second quarter of 2019, and one of the reasons the ACT HEI kept up with other indicators was that key OEMs took early and decisive action to reduce their headcount.

Besides managing the normal market cycle, there may be exceptional factors for OEMs to cope with in 2020. These include the U.S.-China trade war. Although the tone became more constructive and conciliatory in 2019, the fact remains that tariffs have been put in place and there is little prospect of them being removed. These are likely to have an impact on prices, which will ultimately be passed on to customers and may further weaken demand.

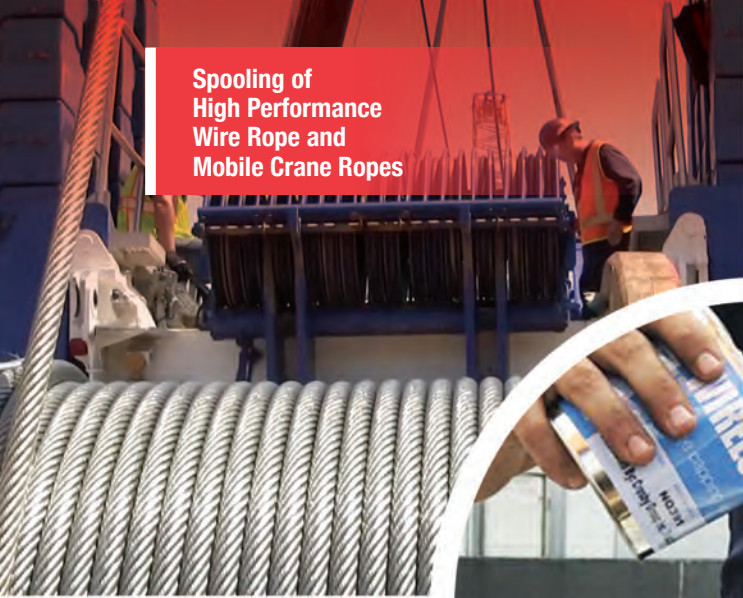
In the UK, long-standing uncertainty surrounding Brexit is starting to dissipate following the Conservative party's majority victory in the country's December elections.

The government has pledged to 'get Brexit done' by the end of January, with investors welcoming more political certainty.

## 52 weeks to January 2020








**Spooling of  
High Performance  
Wire Rope and  
Mobile Crane Ropes**



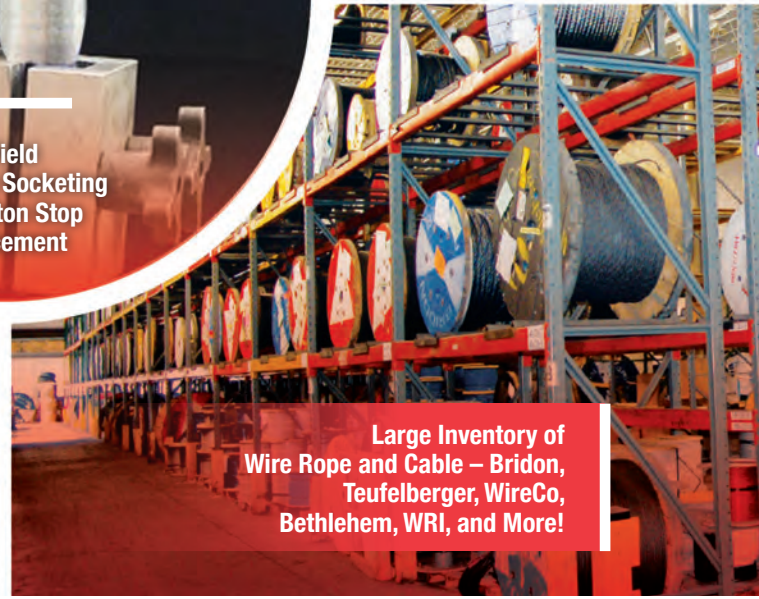
**Replacement Drill Line,  
Tubing Line, and Sand Line  
Cables for Drilling and  
Workover Rigs**



**In-Field  
Wire Rope Socketing  
and Button Stop  
Replacement**



**High Performance  
Crane Ropes for Mobile Cranes,  
Crawler Cranes, Tower Cranes,  
and Overhead Cranes**



**Large Inventory of  
Wire Rope and Cable – Bridon,  
Teufelberger, WireCo,  
Bethlehem, WRI, and More!**

# **YOUR ONE SOURCE FOR HIGH PERFORMANCE CRANE ROPE SERVICES & SOLUTIONS**

□ We have mobile spooling trucks to provide reliable, 24-hour, on-site service to all of our mobile crane customers. Our spooling units were designed and built to handle a variety of applications in the mobile crane industry with the ultimate goal of providing our crane customers with as little down time as possible!

We also employ certified technicians who can perform an in-field poured socket replacement for your high performance crane rope. We come to you with all of the tools and equipment necessary and will get your crane up and running in no time!

**MAZZELLA  
Companies®**

**1.800.362.4601**  
**mazzellacompanies.com**





# Rigging resources

It's a new year and its time to take a new look at the bevy of products offered in the SC&RA store.

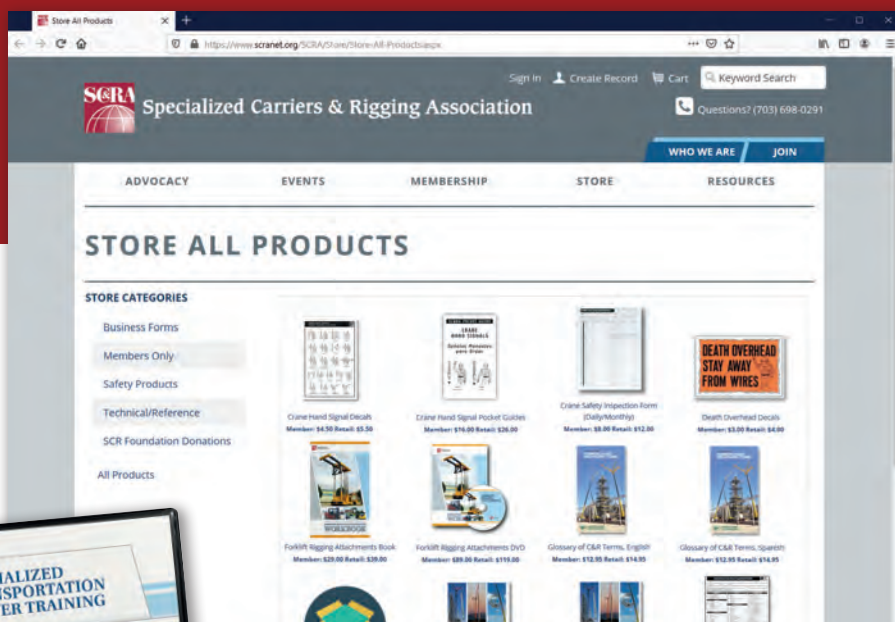
The Specialized Carriers & Rigging Association advocates for, educates and provides networking opportunities to support the specialized transportation, lifting and rigging industry in operating safely, legally and profitably around the world. The Association is the leading resource for the industry, and it offers a wealth of benefits for its members.

One such benefit is the SC&RA Store, which features some 30 products ranging from decals and safety guides to online subscriptions and customized videos. Products range in price from \$5.50 to \$500 with member and non-member pricing. Several of the guides are in English, Spanish and other languages.

The first category of products is business forms, including a daily and monthly Crane Safety Inspection Form, a Lattice Boom Crawler Crane Annual Inspection Checklist, a Mobile Crane Pre-job Safety Checklist, a Telescoping Boom Crane Annual Inspection Checklist and a Tower Crane Pre-Delivery Inspection.

Safety products include two important decals, including one for crane hand signals and one for overhead wires.

SC&RA's custom safety guides include the Crane Hand Signal Pocket Guide, the Guide to Mobile Crane Safety (in English, Spanish and Portuguese), Operating Cranes Around Power Lines DVD and Companion Booklet, Safety Talks Manual,



The SC&RA Store features some 30 products ranging from decals and safety guides to online subscriptions and customized rigging videos.



Specialized Transportation Driver Training Video (DVD) and Specialized Transportation

Load Securement DVD. There's also a Telescopic Hydraulic Gantry safety manual and DVD.

Among the most popular of the safety products is the Operating Cranes Around Powerlines DVD and booklet. The video provides a visual demonstration of safe operating procedures in accordance with OSHA's requirements for mobile cranes near and around power lines. Specifically, the video covers what to consider when planning the assembly or disassembly of a crane near a power line; precautions to take when operating a crane near a power line; where to post warnings; encroachment prevention measures and options; when to use a spotter as well as alternative measures to spotters; when operations can take place under a power line; smaller than minimum clearance distances; required safety meetings and procedures; working near transmitter communication towers; and OSHA's training requirements.

**Overweight/Overweight Permit Manual**

## Custom safety guides

A new product in the safety realm is the Specialized Transportation Drive Training Video. According to SC&RA, this new training video was created to address the specific needs of drivers who are new to the industry. It covers driver skills like right turns and railroad crossings, route planning permits and hazard identification. Additional topics include liability issues with OS/OW loads and advice for working with a team.

In the Technical/Reference category of the SC&RA Store are eight products including the Forklift Rigging Attachments book and DVD, Glossary of Crane & Rigging Terms in both Spanish and English, the SC&RA Membership Directory hard copy and CD, the Moving the World DVD and the Permit Manual Online Subscription. The one-year subscription to the Oversize/Overweight Permit Manual includes all information for all 50 states and Canadian provinces.

One of the most useful products for anyone in the industry is the SC&RA Membership Directory, which includes more than 1,800 listings for member companies all across the globe in crane, rigging, oversize/overweight, related fields (publications, engineers, consultants etc.) Alphabetical and geographical indexes allow for narrowing searches quickly.





**D. Ann Shiffler** and  
**Hannah Sundermeyer**

sit down with Manitex CEO

and Director **Steve Filipov**

to discuss the future of  
the company and his  
business acumen.

**A**n industry titan, Steve Filipov spent the last 25 years as a familiar face at Terex Cranes. But when the headlines broke during Bauma in April 2019 regarding the Tadano acquisition of Demag cranes, the tradeshow grounds were humming with conversations about what the future had in store for both companies. Then several months later, Filipov made news again as he announced his move from president of Terex Cranes to chief executive officer and director for Manitex International.

While he has always been a man in high demand, Filipov attributes the move from Terex to Manitex to the right timing and a little bit of destiny. He has hit the ground running, concentrating on aligning the company's core competencies. With the company running like a well oiled machine, he has devoted much of his time to appointing dedicated teams for the branches of the business. As a fresh set of eyes coming in, he has maintained synergy throughout the many different facets of the company while also paving the way for dynamic growth across the board.

Refocusing, expanding and innovating. These three words resonated throughout my conversation with Filipov. It's easy to see he has massive plans for Manitex, both in the North American market and globally. Composed of an in-depth product structure - Manitex boom trucks, MAC articulating cranes, PM, Valla and the Tadano PM products are continuing to evolve through Filipov's influence and extensive industry experience.

Personable and knowledgeable, Filipov leaves a legacy wherever he goes. When speaking to shareholders, he is often on the receiving end of the question, "What's next and how do we grow the company?" While he has no plans to purchase what is left of Terex right now, he strongly believes he has everything that he needs to grow Manitex. Every day the company takes a

# A fresh

step forward and does something a little bit differently.

"Of course, we'll make mistakes," said Filipov. "But we are going to try to do things differently and change the game where we can."

Self-aware, energetic and intelligent, Filipov is equipped with the prowess and expertise needed to turn Manitex into a global business. With years of industry experience under his belt and an eagerness to keep Manitex innovative and productive, the future of the company is looking very bright. I think you'll be equal parts impressed and interested to see what he had to say.

## HOW DID IT EVOLVE THAT YOU LANDED AT MANITEX INTERNATIONAL?

[Chuckles]. That's a good question. It was not predicted. As you can imagine, I get calls all the time which has been encouraging, but we were so focused on getting the Demag transaction closed, that I passed on a few opportunities. Getting the transaction closed and keeping the business stable was my number one focus. Once it closed, it was time to exit Terex and put together my bucket list.

Terex treated me right. They were a really great company to work for 25 years and I had some time in front of me to think about what I wanted to do. But my first priority was to take some time off, which I did not do very well. Dave Langevin and I have known each other for over 20 years, and he called me about the CEO role at Manitex. I actually asked him to wait a little bit, but I quickly saw a great opportunity in front of me. Dave has done a great job in cleaning up the portfolio and strengthening the balance sheet. When I looked at the opportunity, I felt it was right in my strike zone. The Manitex business is running well, but some other businesses needed more focus.

My global experience is really where I can help, and that's where we came together. But at the end of the day, it's a little bit about destiny, as I can hit the ground running, knowing the crane business, the customers, and have had public company experience the last 25 years. I've been a part of a public company for 25 plus years and know how that

works. Dave has given me 100 percent freedom to take it to the next place, and I think that next place will be a much bigger Manitex business. Clearly, we can't change the end markets. It's going to be a challenging market for the next couple of years. That said, we have great opportunity to grow our Italian business and leverage the strength we have in our North American Manitex business.





# perspective

## WHAT IS YOUR PRIMARY FOCUS FOR THE FIRST 12 MONTHS?

Growing the business. The first thing I noticed when visiting our Italian operations was that we had to refocus on our core competencies. We needed a dedicated team in each of our businesses to drive accountability and focus. The knuckle boom crane and truck mounted aerial business have completely

different end markets and distribution channels, but had been merged together. I separated them, and each now have dedicated teams with shared back office functions to keep our costs down. I'm also spending a lot of my time outside of North America. I have asked Steve Kiefer to keep focused on our North American operations, so I can spend more of my time with PM, Oil and

Steel and Tadano to grow our business internationally.

The other focus is manufacturing excellence. I have seen a lot of opportunity to streamline and improve things like quality, cost and delivery in our operations. Sometimes you have a lot of things going on, and it takes a fresh set of eyes to look at things differently and challenge the team. A perfect example of this was on my first visit to our Georgetown facility, I noticed some areas where we could be better organized on the shop floor. The team quickly picked up on my observations and started to drive change. Another good example is what we did with MAC. For us to bring PM as a separate brand is crazy. Clearly, Manitex has a great brand in North America and has a facility that we can leverage to produce and assemble product. We put in place a dedicated team, as it is a different market, a different manufacturing process and a completely different sales process. There's a pretty big difference between selling a 50-ton meter knuckle boom crane and selling a 50-ton boom truck.

## BETWEEN MANITEX BOOM TRUCKS, MAC ARTICULATING CRANES, PM, VALLA AND THE TADANO PM PRODUCT, THERE'S A LOT TO THINK ABOUT.

You are right! We have a lot of opportunity. Take the Valla product. I'm really excited about it. We have all known the Valla brand for decades. We're going to put more focus on it. It's not a huge number of cranes, but it's a very good specialized crane business that will diversify our portfolio. I started to really gain interest in it when I visited our Crane and Machinery team in Chicago. We put a few small 2.5 ton electric crane in our rental fleet, with a special application for installing windows in large buildings with a remote control. I started to look at the returns and the utilization of the product, and see a great rental opportunity going forward. We now have over a dozen in North America, and are continuing to grow our fleet, so

**Steve Filipov was appointed to the role of chief executive officer and director for Manitex International, while Steve Kiefer (right) serves as COO.**





“ I to spend time with the team and make sure we are making a difference every single day. What did you do today to change the future of Manitex? If we all make a small change every day, it means a huge change over time. Everyone needs to do their part and be accountable.”

**STEVE FILIPOV, CEO and Director,  
Manitex International**



imagine the potential later down the road. We also recently signed up a couple of nice orders for a rental business in North America, an order from our dealer Empire Crane for New York and an order in Qatar. Valla's Zero emission compact cranes have much more opportunity. Again, it's all there. When you look at the PM business, there hasn't been a lot of focus on it. So, I've been spending a lot of time and effort on it.

**WHAT MORE CAN BE DONE TO IMPROVE THIS PRODUCT LINE IN TERMS OF QUALITY, PERFORMANCE, PRICE AND LONGEVITY?**

We need to do all of these and it all starts with quality. I have spoken to many customers and we can do better with our quality, but I did not hear about anything that I do not think is fixable. We are going to start with improving our final test process and implementing metrics like defects at the end of the line and defects in the first 30 days. Getting this feedback will help us understand where we need to focus our efforts. We must be focused on our costs. We buy 70 percent of what we build, and we have much more opportunity to take cost out of our products. We need to be relentless in the pursuit of getting the best quality, at the right time, and at the best price.

**CAN BOOM TRUCK SALES BE TAKEN FURTHER GLOBALLY?**

The boom truck market outside of North America is fairly limited. We will look at opportunities, but not right now. We need to continue to strengthen the Manitex brand in North America and continue to develop new products. The market here has stabilized but it is a much smaller market than knuckle boom cranes. We are currently around 1,000 boom trucks sold in North America and the global market for knuckle booms is over 50,000 so you can see where the market potential really is.

**IT'S A CONEXPO YEAR. WHAT CAN WE EXPECT IN NEW PRODUCT DEVELOPMENT FROM MANITEX INTERNATIONAL?**

We had an opportunity at ICUEE to show some of that, as it's a much smaller show, and much more focused on rental and utility. I think

ConExpo gives us more of a global exposure. We're going to have MAC, new stick boom products and show some new industrial cranes. We're also going to have the A62 and Oil & Steel product there. I think it's going to be an opportunity to show the breadth of the portfolio we have, and start to change. I'm trying to change the perspective of customers and investors and show that we are much more than just a stick boom crane business. Manitex definitely has the potential to grow in North America with product we can assemble in Georgetown, Texas and Winona, Minnesota and in turn we can leverage those facilities. But our facility in Italy also has the potential to be much bigger.

**WHAT IS YOUR BUSINESS PHILOSOPHY?**

We say, we do. Whether to customers or external shareholders, we need to have the credibility that people will trust we will get the job done. If a crane is planned to be delivered on a specific day, we need to make it happen. We need to fix problems and continue to challenge the status quo. I try to spend time with the team and make sure we are making a difference every single day. What did you do today to change the future of Manitex? If we all make a small change every day, it means a huge change over time. Everyone needs to do their part and be accountable.

I have learned that one of the greatest gifts we can ask for is feedback, so I like to spend time with customers and understand what we are doing right, and what we need to do to improve. I'm passionate about what I do. If I wasn't passionate, I wouldn't have stayed with this business. It is hard work and a very competitive market but you have to have fun while doing it!

**WHAT ARE YOU DOING WHEN YOU'RE NOT WORKING?**

I try to spend as much time as possible with my family. I've been in the business so long, it's become a part of my family's life as much as it is my own.

We love to travel, see new things, and just have some fun! I have always been passionate about motor sports, and I like to think my family is also, so there's nothing like a weekend out in a race car or go-kart with the kids.

When I'm home on weekends, my wife and I go running with our dog. It's a great way to empty the mind and at 51, you need some exercise to keep fit when you're traveling almost every week.





## AT BIGFOOT, WE BELIEVE THAT:

Making products in the USA still matters.

Hiring veterans brings some of the best workers any company can have.

Sourcing manufacturing materials from other American companies is the right thing to do.

Hard work and innovation must be constant for success.

Making a great product matters more than cutting corners to increase profit margins.

Humans should answer the phone to help customers.

Making reliable, dependable products that last a lifetime should be the goal of every business.

If you're not providing amazing customer service, you're doing it wrong.

## AND BECAUSE WE BELIEVE IN THESE THINGS, IT IS WHO WE ARE & WHAT WE DO.

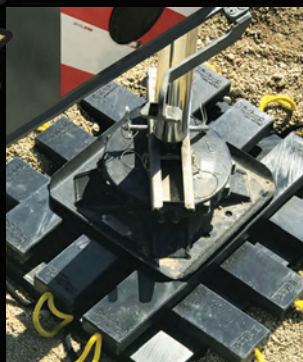
COMPOSITE OUTRIGGER PADS



WE MAKE ANY SIZE PAD YOU NEED



WE MAKE CUSTOM SOLUTIONS



WOOD OUTRIGGER PADS



# Bigfoot

CONSTRUCTION EQUIPMENT, INC.

OUTRIGGER PADS

STRENGTH | STABILITY | SAFETY

PHONE: (888) 743-7320 | EMAIL: [BIGFOOT@OUTRIGGERPADS.COM](mailto:BIGFOOT@OUTRIGGERPADS.COM) | WEB: [WWW.OUTRIGGERPADS.COM](http://WWW.OUTRIGGERPADS.COM)



Trends in technology are paving the way for the future of equipment operator training. **Hannah Sundermeyer** reports.

# Optimal operations

**T**esting and training via simulations can result in better designed equipment, as well as operators that are more prepared to run the equipment at optimal capacity.

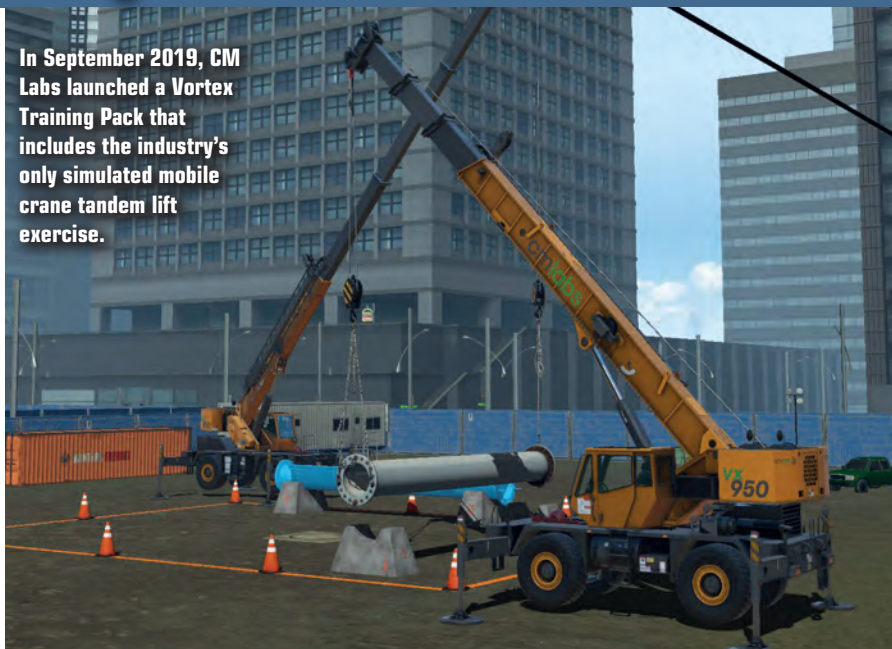
But how exactly is technology changing the way equipment operators are trained?

“Technology in today’s equipment is highly connected, and the ability to analyze equipment usage in real time also influences the way training is delivered,” said Drew Carruthers, director, product strategy, CM Labs Simulations. “Predictive analytics, for example, can apply to operator training when incorporated into simulators to teach advanced techniques, such as making tandem crane lifts. Real-time metrics captured by the simulator can indicate areas for improvement, whether in real time, or as part of an after-action review session with the trainer.”

With the advent of big data analysis, Carruthers added that modern simulators can also assess and predict the impact of individual operator actions on machine efficiency. This information typically provides the shortest, most effective path to skills acquisition.

Meanwhile, there is no longer any reason for learning to remain in the classroom.

**In September 2019, CM Labs launched a Vortex Training Pack that includes the industry’s only simulated mobile crane tandem lift exercise.**



As augmented reality (AR) becomes more widely adopted, there are many opportunities for on-the-job training.

“By using AR glasses to superimpose digital information on the environment, an equipment operator can train on site hazards and setup procedures, shift start-up equipment inspection or machine

troubleshooting or even practicing an operation before starting up the equipment,” said Carruthers.

## Improving dialog

Simulation also influences the human-machine interface. Modern construction equipment is designed with heads-up displays and systems-monitoring controls. Equipment manufacturers are using simulation-based software as a test bed for how equipment can better dialog with operators in the seat. Manitowoc’s new Crane Control System is an operating platform that provides a common interface across multiple product lines.

In September 2019, CM Labs also launched a Vortex Training Pack that includes the industry’s only simulated mobile crane tandem lift exercise, as well as a competency demonstration exercise that provides a safe, objective tool for employers to assess crane operator skills.

At this year’s ConExpo, CM Labs will be displaying its immersive Vortex Advantage and portable desktop Vortex Edge Plus. These simulators can run the company’s full catalog of lifting equipment and earthmoving equipment. This

## Easybook Training expands reach

Following the recent launch of their new and improved UK website, Easybook Training has ventured into the North American market with the official launch of a U.S. website and new office in Waukesha, WI. Originally based out of Tunbridge Wells, Kent, Easybook originated nine years ago and has seen continued success since then. Led by Terry Walsby and Lucy Tier, Easybook has joined with KHL Group in a joint venture offering a marketing platform to continue to grow the company. Easybook provides a simple and convenient way to search and book safety courses including certified crane training. This has become increasingly useful following the new Occupational Safety and Health Administration (OSHA) Regulation that was announced in 2019.

“The new American website will offer the same course categories as the UK, from construction and first aid training programs right through to working at height but the course offerings will be in-line with U.S. laws and regulations,” said Lucy Tier, director, Easybook Training.

Following the announcement of this new OSHA directive, Tier said it seemed like the right time to target the American training and certification market.

For more information, visit [www.easybooktraining.com](http://www.easybooktraining.com)

**easybook**  
training  
training for safety



“ Technology in today’s equipment is highly connected, and the ability to analyze equipment usage in real time also influences the way training is delivered.

**DREW CARRUTHERS, Director,  
Product Strategy, CM Labs**

includes simulations for mobile cranes, backhoes, excavators and many more.

## Visualizing success

Any lift plan that a user creates of a pick can be loaded into A1A Software’s soon to be launched VR Lift Simulator. This unique software innovation offers a variety of benefits to companies utilizing it for training and other applications.

“It complements the sales process by allowing the crane rental company to demonstrate to the customer how the lift will be executed,” said Tawnia Weiss, president, A1A Software. “The salesperson and the customer can both wear the VR headset to see the lift in action.”

The VR Lift Simulator can be used for mitigating risk by allowing the crane operator to practice the actual lift scenario and for lift directors to identify whether crane or personnel placement should be modified in order to improve safe execution.

“There’s no better way to visualize a crane lift plan than with VR [virtual reality],” said Tawnia Weiss, president, A1A Software.

The 3D Lift Plan VR could be used for training or crane operator evaluation, but Weiss said what sets it apart from other simulators is that it is designed as an enhancement of lift planning to aid in the execution of actual lifts.

When it comes to tech trends in crane and rigging and the future for training methods and technology further integration of software and technology products will pave the way so that data is able to be accessed more quickly and completely. Weiss added that she believes there will be more augmented reality applications for the crane and rigging industry in the years to come.

## Directory of select training, safety, certification and inspection services

COMPANY NAME	WEBSITE
<b>ACRA Enterprises</b>	<a href="http://www.acratech.com">www.acratech.com</a>
<b>All Crane Training USA Inc.</b>	<a href="http://www.actuinc.com">www.actuinc.com</a>
<b>All Test &amp; Inspection</b>	<a href="http://www.alltest.com">www.alltest.com</a>
<b>AmCrane</b>	<a href="http://www.amcranes.com">www.amcranes.com</a>
<b>America Crane Training Services Inc.</b>	<a href="http://www.americacranetraining.com">www.americacranetraining.com</a>
<b>American Crane Training &amp; Consulting</b>	<a href="http://www.americancranetraining.com">www.americancranetraining.com</a>
<b>American International Crane Bureau – AICB</b>	<a href="http://www.cranebureau.com">www.cranebureau.com</a>
<b>American Test Center</b>	<a href="http://www.atctest.com">www.atctest.com</a>
<b>Apprenticeship &amp; Skill Improvement Program</b>	<a href="http://www.asiplocal150.org">www.asiplocal150.org</a>
<b>Arxcis Inc.</b>	<a href="http://www.arxcis.com">www.arxcis.com</a>
<b>Associated Training Services</b>	<a href="http://www.operator-school.com">www.operator-school.com</a>
<b>Atlantic Crane Inspections Service</b>	<a href="http://www.atlanticcrane.com">www.atlanticcrane.com</a>
<b>Barth Crane Inspections LLC</b>	<a href="http://www.craneoperator.com">www.craneoperator.com</a>
<b>BC Association for Crane Safety</b>	<a href="http://www.bcacs.ca">www.bcacs.ca</a>
<b>California Crane School</b>	<a href="http://www.californiacraneschool.com">www.californiacraneschool.com</a>
<b>Cairo Marine Service, Inc</b>	<a href="http://www.cairomarineservice.com">www.cairomarineservice.com</a>
<b>CH C&amp;R Consultants</b>	<a href="http://www.chcrane.com">www.chcrane.com</a>
<b>CM Crane &amp; Training Services</b>	<a href="http://www.cmcrane.net">www.cmcrane.net</a>
<b>Columbus McKinnon Training</b>	<a href="http://www.cmworks.com/training">www.cmworks.com/training</a>
<b>Construction Safety Experts</b>	<a href="http://www.safety-xperts.com">www.safety-xperts.com</a>
<b>Crane Certification Services</b>	<a href="http://www.cranecert.com">www.cranecert.com</a>
<b>Crane Exam, LLC</b>	<a href="http://www.craneexam.com">www.craneexam.com</a>
<b>Crane Industry Services, LLC</b>	<a href="http://www.centeredonsafety.com">www.centeredonsafety.com</a>
<b>Crane Inspection &amp; Certification Bureau (CICB)</b>	<a href="http://www.cicb.com">www.cicb.com</a>
<b>Crane Inspection Services</b>	<a href="http://www.craneinspection.com">www.craneinspection.com</a>
<b>Crane Institute Certification</b>	<a href="http://www.cicert.com">www.cicert.com</a>
<b>Crane Institute of America</b>	<a href="http://www.craneinstitute.com">www.craneinstitute.com</a>
<b>Crane Operators Certification and Inspections Inc.</b>	<a href="http://www.cociinc.com">www.cociinc.com</a>
<b>Cranes 101</b>	<a href="http://www.cranes101.com">www.cranes101.com</a>
<b>Crane Safety Associates of America</b>	<a href="http://www.cranesafetyassociates.com">www.cranesafetyassociates.com</a>
<b>Crane Tech, LLC</b>	<a href="http://www.cranetech.com">www.cranetech.com</a>
<b>Crane U, Inc.</b>	<a href="http://www.craneu.com">www.craneu.com</a>
<b>Crane Wise Certifications, LLC</b>	<a href="http://www.cranewisellc.com">www.cranewisellc.com</a>
<b>Cranecoach</b>	<a href="http://www.cranecoach.com">www.cranecoach.com</a>
<b>Crawford Custom Consulting</b>	<a href="http://www.crawfordcustom.com">www.crawfordcustom.com</a>
<b>Crews Crane Training International</b>	<a href="http://www.cranetraining">www.cranetraining</a>
<b>Domson Engineering &amp; Inspection</b>	<a href="http://www.domson.ca">www.domson.ca</a>
<b>ehs International, Inc.</b>	<a href="http://www.ehsinc.org">www.ehsinc.org</a>
<b>Equipment Safety Services</b>	<a href="http://www.maxboom.com">www.maxboom.com</a>
<b>Equipment Training Solutions, LLC</b>	<a href="http://www.equipmenttraining">www.equipmenttraining</a>
<b>Falck Safety Services</b>	<a href="http://www.falck.com">www.falck.com</a>
<b>Global Crane &amp; Rigging Certification</b>	<a href="http://www.globalcrane.com">www.globalcrane.com</a>
<b>Global Environment Network</b>	<a href="http://www.My-DVBE.com">www.My-DVBE.com</a>
<b>Hite Services Limited</b>	<a href="http://www.hiteservices.com">www.hiteservices.com</a>
<b>IMPACT</b>	<a href="http://www.impact-net.org">www.impact-net.org</a>
<b>Industrial Training International, Inc.</b>	<a href="http://www.iti.com">www.iti.com</a>
<b>Industrial Training Solutions</b>	<a href="http://www.industrial-training-solutions.com">www.industrial-training-solutions.com</a>
<b>Industry Training Authority</b>	<a href="http://www.itabc.ca">www.itabc.ca</a>



# The job site is no place to roll the dice.

Don't gamble on generic contracts and policies with more exclusions than coverage. NBIS is the undisputed industry leader when it comes to insurance contract language for crane and rigging and heavy haul companies. So you're covered the **right** way, no matter what.

## COVERAGES

General Liability | Property/ Inland Marine | Commercial Auto | Excess/Umbrella  
Physical Damage | Custom Cargo/ Transit | Workers' Compensation

*NBIS is a national managing program underwriter, loss control provider, claims adjusting administrator, and reinsurer specializing in construction and transport insurance programs exclusively through agents/ brokers.*

*NBIS is an endorsed property and casualty provider for **SORA***



NBIS has been providing airtight insurance solutions to crane and rigging, specialized transportation, and equipment dealer/ rental companies for over 20 years. Ask your agent for an NBIS quote today and experience the risk-management difference.

Call (888) 668-6247 or email [submissions@nbis.com](mailto:submissions@nbis.com).



# All the answers

NCCCO updates frequently asked questions about OSHA's Final Crane Rule.

**M**ost employers are likely familiar with the crane operator training and certification requirements of 29 CFR 1926 Subpart CC that OSHA published in 2010. The latest Rule published in November 2019 modifies some of those and adds a new process called "Evaluation." Here, NCCCO provides an overview of the essential elements of each of these requirements.

## WHAT TRAINING DOES OSHA REQUIRE AND WHAT SPECIFICALLY MUST TRAINING INCLUDE?

Employers 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.

OSHA 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?

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

## WHAT ARE 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 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 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?

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 EMPLOYERS HAVE TO RETRAIN?

Yes. Employers 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.

## HOW CAN EMPLOYERS ENSURE OPERATORS ARE QUALIFIED?

There are three essential components to this process. Employers must ensure that



The Rule published in November 2019 modified crane operator training and certification.

each of their operators is trained, certified (or licensed) and evaluated.

## WHAT ABOUT 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.

## WHAT IF I WORK AS A CONTRACTOR TO THE MILITARY?

This rule still applies. The military exclusion from the rule only covers employees of the United States military (Department of Defense or Armed Services). All contractor companies with



## Directory of select training, safety, certification and inspection services

COMPANY NAME	WEBSITE
Institute for Safety and Health Management	<a href="http://www.ishm.org">www.ishm.org</a>
International Training & Safety LLC	<a href="http://www.trainmesafe.com">www.trainmesafe.com</a>
IPT Publishing & Training	<a href="http://www.iptbooks.com">www.iptbooks.com</a>
KC Training Technology	<a href="http://www.kctrainingtechnology.com">www.kctrainingtechnology.com</a>
Kissimmee Crane School	<a href="http://www.kisscranes.com">www.kisscranes.com</a>
Lift-It Manufacturing Co, Inc.	<a href="http://www.lift-it.com">www.lift-it.com</a>
Morrow Training Center	<a href="http://www.morrow.com">www.morrow.com</a>
National Commission for the Certification of Crane Operators (NCCCO)	<a href="http://www.nccco.org">www.nccco.org</a>
National Crane Inspection, LLC	<a href="http://www.nationalcraneinsp.com">www.nationalcraneinsp.com</a>
National Crane Services	<a href="http://www.natlcrane.com">www.natlcrane.com</a>
Nationwide Crane Training	<a href="http://www.nationwidecranetraining.com">www.nationwidecranetraining.com</a>
NCCER	<a href="http://www.nccer.org">www.nccer.org</a>
North American Crane Bureau	<a href="http://www.cranesafe.com">www.cranesafe.com</a>
Occupational Safety Training Systems Inc.	<a href="http://www.ostsinc.com">www.ostsinc.com</a>
Operating Eng. Training Institute	<a href="http://www.oetio.com">www.oetio.com</a>
Operator Network	<a href="http://www.operatornetwork.com">www.operatornetwork.com</a>
Overton Safety Training, Inc.	<a href="http://www.overtonsafety.com">www.overtonsafety.com</a>
Professional Service & Repair Inc.. (PSR Inc.)	<a href="http://www.psrinc.biz">www.psrinc.biz</a>
Quad City Testing Laboratory, Inc.	<a href="http://www.testlab1.com">www.testlab1.com</a>
RHTC, Inc.	<a href="http://www.rhtcinc.com">www.rhtcinc.com</a>
Rigging Institute	<a href="http://www.rigginginstitute.com">www.rigginginstitute.com</a>
R Spec Crane Inspectors	<a href="http://www.cranedecals.com">www.cranedecals.com</a>
Safety Provisions Inc.	<a href="http://www.hardhattraining.com">www.hardhattraining.com</a>
Safety Resources Unlimited Inc.	<a href="http://www.sruinc.org">www.sruinc.org</a>
Stephenson Equipment Inc.	<a href="http://www.stephenson-equipment.com">www.stephenson-equipment.com</a>
Sylvan Enterprises	<a href="http://www.sylvanent.com">www.sylvanent.com</a>
The Center for Construction Research and Training	<a href="http://www.cpwr.com">www.cpwr.com</a>
The Crane School	<a href="http://www.thecraneschool.com">www.thecraneschool.com</a>
The Safety Zone	<a href="http://www.safety-zone.com">www.safety-zone.com</a>
Total Crane Services Ltd	<a href="http://www.totalcraneservices.com">www.totalcraneservices.com</a>
Tower Crane Inspection Bureau	<a href="http://www.towercraneinspectionbureau.com">www.towercraneinspectionbureau.com</a>
Tower Crane School of Phoenix LLC	<a href="http://www.towercraneschool-phoenix.com">www.towercraneschool-phoenix.com</a>
TSC Training Academy	<a href="http://www.tsctrainingacademy.com">www.tsctrainingacademy.com</a>
Turner Safety	<a href="http://www.steveturnersafety.com">www.steveturnersafety.com</a>
West Coast Training Inc.	<a href="http://www.heavyequipmenttraining.com">www.heavyequipmenttraining.com</a>
Working Class Heroes Safety	<a href="http://www.wchcranesafety.com">www.wchcranesafety.com</a>

Excerpted from the 2020 *American Cranes & Transport Sourcebook*

crane operators on site need to meet the certification requirements listed [§ 1926.1427(a)(3)].

### WHAT ABOUT 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 most cases licensed operators will have obtained

NCCCO certification as a condition of obtaining their state license. In those cities or states where the license requirements do not meet OSHA's certification requirements, OSHA requires employers also obtain certifications for their operators. [Federal Register Vol. 83, No. 218, November 9, 2018, Page 56125]

### WHO PAYS FOR THE CERTIFICATION AND OR LICENSE?

The employer does. It wasn't certain in the

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

### WHERE CAN I GET CERTIFICATION?

The issuing entity 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.

### CAN EMPLOYERS DEVELOP THEIR OWN CERTIFICATION PROGRAM?

Employers can develop their own program, but it must meet essentially the same development, management and test administration requirements of a certification program from a third-party organization. It must be audited by someone who is certified to evaluate such programs by an accredited crane operator testing organization. The requirements are laid out in 1926.1427(e).

### 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 OPERATOR TESTS HAVE TO COVER?

OSHA is specific about what areas have to be covered 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?

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, the NCCCO Foundation has established 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 is program is not available. Requests for determination can be sent to [cranetype@nccco.org](mailto:cranetype@nccco.org).

## WHAT IF OPERATORS 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. And, of course, the crane operator testing organization has to have exams available in that language [§ 1926.1427(h)(2)].

## DO ALL CRANE OPERATORS NEED TO BE CERTIFIED?

Operators of most cranes above 2,000-pound capacity when used in construction need to be certified either by a nationally accredited crane operator testing organization or through an audited employer program [§ 1926.1427(a)].

## WHAT DOES A CERTIFIED CRANE OPERATOR NEED TO DO?

Nothing. CCO certification provided by the National Commission for the Certification of Crane Operators (NCCCO) fully meets the requirements of the OSHA rule.

Please note that this applies to certifications of operators of all the crane types NCCCO currently offers (Mobile Cranes, Tower Cranes, Overhead Cranes, Articulating Cranes, Service Truck Cranes) [§ 1926.1427(d)].

## WHO IS ACCREDITED?

It's important to note that OSHA now requires all certification organizations providing certification to crane operators to be accredited. There are several certification bodies but only four that are currently accredited.

Accredited by ANSI:

- NCCCO – National Commission for the Certification of Crane Operators
- NCCER – formerly the National Center for Construction Education and Research

- EICA – Electrical Industry Certifications Association

Accredited by NCCA:

- OECP – Operating Engineers Certification Program

Bear in mind that not all certification bodies are accredited for all the programs they offer. Employers can verify for themselves which programs are included in the accreditation scope, and which bodies are accredited, by checking directly with the appropriate agency. ■

**Have a question? Email NCCCO's Personnel Rule Task Force at [osharule@nccco.org](mailto:osharule@nccco.org).**

# Modulift®

working between the hook and the load

**Experts in the design and manufacture of standard and engineered lifting products**

- Modular Spreader Beams up to 600t in stock and available worldwide for distribution
- Modular Spreader Beams for 6–5000t and spans up to 100m/330ft
- Adjustable Lifting/Spreader beams stocked as a boxed product for immediate shipping
- Load Monitoring Spreader Beams with an integrated Load Cell giving you instant wireless data logging
- Experts in engineered lifting products and projects requiring high QA standards
- All MOD beams are fully tested and certified with DNV Type approval as standard

**For details of your local distributors in North America please visit our website**



## Spreader Beams



## Adjustable Lifting/ Spreader Beams



## Load Monitoring Spreader Beams



## Trunnion Spreader Beams



## Spreader & Lifting Frames



**For more information contact**

+44 (0)1202 621511

[sales@modulift.com](mailto:sales@modulift.com)

[www.modulift.com](http://www.modulift.com)



ACT surveyed leading articulating crane manufacturers about their latest and greatest products for the North American market.

# Agile and adaptable

Articulating cranes go by a variety of names. Classified as anything from loader cranes to knuckleboom cranes to picker cranes, these machines are versatile yet powerful pieces of equipment that cover a range of applications across the industry. Particularly relevant in utility applications and material handling, articulating cranes are able to fit into spaces that more traditional cranes cannot. However, their smaller size does not compromise their

strength, as articulators can provide a variety of lifting solutions.

The ACT team reached out to several articulating crane companies to get the scoop on their latest makes and models.

## Fassi

Fascan International recently unveiled the Fassi F375SE.14, the company's newest wallboard crane, at a dealer demo at Fascan headquarters in Baltimore, MD. Fascan is the exclusive U.S. distributor of Fassi articulating cranes. Dealers and technicians from across the U.S. had an opportunity to operate the new crane which arrived in the U.S. market in March of 2019.

The 7-story F375SE.14 has a maximum lifting capacity of more than 7,900 pounds, a vertical reach of 84 feet and a horizontal reach of more than 72 feet. It features an extension on the main boom and 4 extensions on the outer boom, allowing operators to extend vertically to 38 feet with a load before knuckling over and extending it to its full reach.

Another enhancement on the F375SE is that the inner boom can be extended at any angle. On previous load charts, the inner boom angle could only be extended after the boom was above 45 degrees.

**The 7-story F375SE.14 has a maximum lifting capacity of more than 7,900 pounds and a vertical reach of 84 feet.**

The F375SE.14 and its F375SE.13 counterpart are also equipped with a ten-sided boom, which increases the overall strength and stability of the boom when compared to a traditional diamond-shaped structure.

The machine incorporates stronger steel into the boom structure which allows for a lighter overall design without affecting the crane's maximum lift.

## Franna

On display at ConExpo 2020 will be Franna's popular AT 22 model, a mid-sized, mobile pick and carry crane with a maximum lifting capacity of 24 tons. Boasting maximum safety features and superior capabilities than that of other pick and carry cranes in the field, the AT 22 is a logical choice for customers who cover a wide range of applications, the company said. Key features and benefits of the machine include its 24-ton capacity at a 4-foot 7-inch radius, and a 1.8-ton capacity at its 51-foot 10-inch radius as well as a 55 foot 9-inch maximum hook height. The AT 22 has an 18.5 capacity on its four-part hook block and a single line pull capacity of 4.6 tons.

Its unique boom head design allows for maximum clearance and easy access to all key maintenance points, the company said.

Franna's patented Dynamic LMI system is also designed to offer 'real-time' calculation of rated capacity taking into





IMT's 32/222 model has a maximum lift capacity of 15,058 pounds and one of the industry's longest maximum horizontal reaches.



and has generated a lot of interest in the North American crane market, so we are very excited to showcase it to visitors at Conexpo 2020," said Dermot McCracken, marketing manager, Franna.

## Manitex International

This year, the Manitex team is focusing on growing the Manitex Articulating Cranes (MAC) division, along with the continued innovation of their entire family of products. After the unveiling of the MAC brand at the 2019 ICUEE show in Louisville, KY the company said it is looking forward to 2020 and ConExpo to highlight core offerings. At ICUEE, Manitex revealed the MAC 47.5 knuckle boom. Manitex's articulating crane products combine the versatility of a knuckle boom and the dependability

account boom configuration, as well as chassis articulation, pitch and roll.

"The first AT 22 export arrived in the U.S. towards the end of 2018

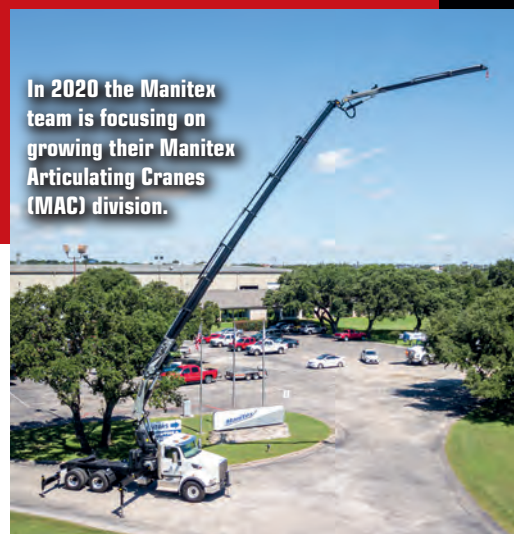
**Franna's popular AT 22 is a mid-sized, mobile pick and carry crane with a maximum capacity of 24 tons.**



of the brand, the company said.

From the MPL74 wallboard delivery machine to the MAC 65 with jib (ideal for tree care when fitted with an optional grapple saw attachment), the company is excited to showcase their full line of machines to the North American market.

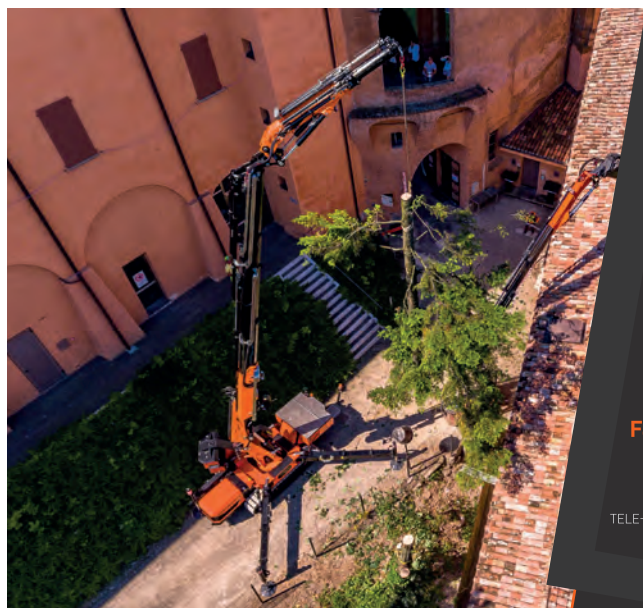
In 2020 the Manitex team is focusing on growing their Manitex Articulating Cranes (MAC) division.



## Iowa Mold Tooling (IMT)

The IMT 32/222 articulating crane features a superior lift-to-weight ratio, as the model has a maximum lift capacity of 15,058 pounds and one of the industry's longest maximum horizontal reaches in the 30-tm range: 69 feet 7 inches. It offers versatility and dependability even on the most challenging jobsites, the company said.

Standard features of the 32/222 include application-specific product offering, superior lift-to-weight ratio, long-reach capabilities, hexagonal booms for reach and control, internal hose routing and a 15° overbending on the outer boom. It also features various stabilizer configurations, a double link arm system, boom mounted winch, a floodlight on outer boom, boom tip functions for hydraulic attachments, an oil cooler and the Electronic Vehicle Stability (EVS) System.



## JF SERIES ARTICULATED CRAWLER CRANE

Evolution of the species



Booths  
F4569 & 4346



Booth  
C6226



Booth  
4880

MINICRANES | MINIPICKERS  
TELE-CRAWLER CRANES | VACUUM & TOOLS  
ARTICULATED CRAWLER CRANES  
[www.jekko-cranes.com](http://www.jekko-cranes.com)





# Auction season

Used cranes and transport equipment has the potential to bring an immediate value to purchasing groups.

**D. Ann Shiffler** reports.

Last month Bigge Crane & Rigging held a special auction to sell off its specialized lifting and transport equipment.

Kitchen's Crane & Equipment partnered with Motley's Industrial to help organize and advertise the lots that were auctioned, according to Eddy Kitchen.

"The lot planning and project

organization was initiated by the team with the successful end result for the client always driving our focus and direction," he said. "Understanding the products and how they are used in today's market was critical to gaining the business and understanding who our marketing and sales efforts should be directed to."

## Combined efforts

The Kitchen and Motley teams worked in advance to identify and market to a specific group of world contractors.

"This auction was a unique opportunity for all the parties involved to create a specialized heavy-lift and transport auction platform that would connect with world industry players while focusing on satisfying the client's interest in liquidation of the assets," Kitchen said.



"The auction was an overall success where the combined efforts of an industry specialist and a professional auction group provided a solution otherwise never provided in the market. Working together was required to make the best decisions for reaching the goals of all the parties."

Kitchen said specialized transport equipment was the biggest draw from the auction and products were in full demand.

"Even though heavy lifting could be considered as the biggest bidder draw, transportation seemed to show the greatest return in an economy still

## A global reach

Late winter and early spring is live auction season in North America, especially in Florida where several big auctions are held each year.

Likely the biggest auction held each year is the Ritchie Bros.' Orlando auction, which will be held February 17-22, 2020. Known for its size and selection of equipment, the February auction attracts more than a million people online and thousands onsite each year. The 2019 event featured 13,000+ items selling for \$297+ million. It was Ritchie Bros.' largest ever.

"We've been holding auctions in Florida since 1984, and we challenge ourselves to improve every year," said Jake Lawson, senior vice president, Ritchie Bros. "Our facilities and services are unmatched in the industry. In six days, we will sell more than 200 acres of equipment. From Florida, that equipment will travel to jobs across the U.S., Canada and Mexico, as well as overseas to Europe, the Middle East and Asia. This is not just a Florida or U.S. auction – this will be the premier global auction of 2020."

The Yoder & Frey equipment auction takes place February 12-15 in Kissimmee, FL. JJ Kane will host a live auction in Palm Beach, FL March 28, 2020.

**Bigge Crane & Rigging held an auction to sell its specialized lifting and transport equipment.**

The screenshot shows a web browser displaying the Motley's Industrial website. The page is titled "Bigge Crane & Rigging Co. Asset Realignment Auction | REMOVAL DATES, TIMES, LOCATIONS & CONTACTS - Assets Still Available for Sale! For Details, Please Contact Jeremy Lehman @ 804.627.2165." The website has a navigation bar with links for ALL SALES, RESULTS, SELLERS, APPRAISALS, FAQs, ABOUT US, OFFICES, and CONTACT US. Below the main heading, there is a large image of a Bigge crane and a smaller image of a Bigge truck. The page also includes a section for "Bigge Crane & Rigging Co. Ass. - Motley's Asset Disposition Group" and a "PRESENTED BY:" section at the bottom.





**Ritchie Bros.' annual February auction attracts more than a million people online and thousands onsite each year.**

booming from transporting goods and major manufacturing equipment and tools," he said.

Kitchen's Crane & Equipment has played a valued role in the buying, selling and trading of specialized heavy lifting equipment for more than 13 years.

"Our ability to understand the risks and potential rewards of buying at an auction or direct from a client influences our business on a daily basis," Kitchen said.

Buying and selling equipment at auctions has plenty of upsides and downsides. The positives of buying from an auction are that the opportunities of obtaining specialized equipment and tools at a discounted rate can bring immediate value to purchasing groups, Kitchen said. Conversely, the downside can be the potential risk of buying a piece of equipment that isn't up to par.

"Without having a specialist review and inspect the equipment, you could then end up with a piece of equipment not meeting the expectations of the buyer from a condition or performance standpoint," said Kitchen. "For this auction, our team worked specifically with the Bigge team to assure we offered maintenance records and reports to support the true condition and give the buyers a real snapshot of the value for the equipment."

### Up in the air

At this point, Kitchen said the market for used equipment is mixed. "The U.S. crane market seems to be flooded with

## Select auctioneers

COMPANY NAME	PHONE NUMBER	WEBSITE
<b>Alex Lyon &amp; Son</b>	(315) 633-2944	<a href="http://www.lyonauction.com">www.lyonauction.com</a>
<b>American Auctioneers LLC</b>	(256) 927-5263	<a href="http://www.american-auctioneers.com">www.american-auctioneers.com</a>
<b>Bar None Auction</b>	(866) 372-1700	<a href="http://www.barnoneauction.com">www.barnoneauction.com</a>
<b>Berryhill Auctioneers</b>	(972) 874-1222	<a href="http://www.berryhillauctioneers.com">www.berryhillauctioneers.com</a>
<b>Bunch Bros Auctioneers</b>	(270) 376-2992	<a href="http://www.bunchbrothers.com">www.bunchbrothers.com</a>
<b>Crane Network</b>	(214) 612-7626	<a href="http://www.cranenetwork.com">www.cranenetwork.com</a>
<b>Darell Dunkle Auctioneers</b>	(800) 433-6670	<a href="http://www.dunkleauctioneers.com">www.dunkleauctioneers.com</a>
<b>Deanco Auction</b>	(601) 656-9768	<a href="http://www.deancoauction.com">www.deancoauction.com</a>
<b>Dovebid Auctions</b>	(800) 665-1042	<a href="http://www.go-dove.com">www.go-dove.com</a>
<b>DSA Don Smock Auction Company</b>	(765) 778-9277	<a href="http://www.dsaauctions.com">www.dsaauctions.com</a>
<b>First Capitol Auction Inc.</b>	(707) 552-0739	<a href="http://www.1stcapitolauction.com">www.1stcapitolauction.com</a>
<b>Henderson Auctions</b>	(225) 686-2252	<a href="http://www.hendersonauctions.com">www.hendersonauctions.com</a>
<b>Hilpipe Auctions</b>	(319) 235-6007	<a href="http://www.hilpipe.com">www.hilpipe.com</a>
<b>Hunyady Auction Services</b>	(215) 361-9099	<a href="http://www.hunyady.com">www.hunyady.com</a>
<b>I.R.A.Y. Auction</b>	(320) 968-7230	<a href="http://www.iraymn.com">www.iraymn.com</a>
<b>J J Kane Auctioneers</b>	(855) 462-5263	<a href="http://www.jjkane.com">www.jjkane.com</a>
<b>J M Wood Auction Company</b>	(334) 264-3265	<a href="http://www.jmwood.com">www.jmwood.com</a>
<b>Lloyd Meekins &amp; Sons</b>	(910) 738-1389	<a href="http://www.meekinsauction.com">www.meekinsauction.com</a>
<b>LVG Auctions</b>	(800) 340-7606	<a href="http://www.lvgauctions.com">www.lvgauctions.com</a>
<b>Jeff Martin Auctioneers Inc.</b>	(601) 450-6200	<a href="http://www.jeffmartinauctioneers.com">www.jeffmartinauctioneers.com</a>
<b>Martin Auction Services LLC</b>	(217) 935-3245	<a href="http://www.martinauction.com">www.martinauction.com</a>
<b>Musser Bros Auctioneers</b>	(509) 416-6060	<a href="http://www.mbauction.com">www.mbauction.com</a>
<b>Myron Bowling Auctioneers</b>	(513) 738-3311	<a href="http://www.myronbowling.com">www.myronbowling.com</a>
<b>Petrowsky Auctioneers</b>	(860) 642-4200	<a href="http://www.petrowskyauctioneers.com">www.petrowskyauctioneers.com</a>
<b>Pro Team Auction Company</b>	(865) 674-7002	<a href="http://www.proteamauction.com">www.proteamauction.com</a>
<b>Purple Wave Auction</b>	(785) 537-7653	<a href="http://www.purplewave.com">www.purplewave.com</a>
<b>Ritchie Bros. Auctioneers</b>	(778) 331-5500	<a href="http://www.rbuctions.com">www.rbuctions.com</a>
<b>Sullivan Auctioneers LLC</b>	(217) 847-2160	<a href="http://www.sullivanauctioneers.com">www.sullivanauctioneers.com</a>
<b>Thompson Auctioneers</b>	(937) 426-8446	<a href="http://www.thompsonauctioneers.com">www.thompsonauctioneers.com</a>
<b>Vocon Auctions</b>	(866) 218-6266	<a href="http://www.govocon.com">www.govocon.com</a>
<b>West Auctions</b>	(530) 661-0490	<a href="http://www.westauction.com">www.westauction.com</a>
<b>Yoder &amp; Frey Auctioneers Inc</b>	(419) 865-3990	<a href="http://www.yoderandfrey.com">www.yoderandfrey.com</a>

Source: ACT Sourcebook 2020

### Likely the biggest auction held each year is the Ritchie Bros.' Orlando, FL auction.

used and newer machines," Kitchen said. "Our market seems steady depending on U.S. markets requiring various sizes and capacities of cranes. It's more of a buyer's market."

In addition, current exchange rates and a strong dollar may thwart an increased international interest in U.S. equipment. Other world markets may present a better value in the eyes of international buyers, Kitchen said.

"This leads to potential buyers seeking out the best value for their purchase except where specialized equipment may only be available through North American brokers and other sales



venues," he said. "Other equipment and the pricing is directly affected based on availability, condition and associated costs of operating and maintaining the gear."



# Rocket lift

NASA is currently performing a lift-training program for the new SLS Pathfinder Core Stage rocket. **Julian Leek** and **Mary Kanian** report exclusively for *ACT*.

**T**he U.S. space program has historically built in redundant systems on just about every rocket and spacecraft it ever manufactured for good reason. Human life is on the line, not to mention expensive machinery, so catastrophic failure must be avoided at all costs.

This is not the case for its ground support facilities. If something breaks, someone can usually go out and make repairs. However, that is not the case when it comes to the unique, one-of-a-kind equipment developed for the space program, as it can only be maintained during down-time between scheduled launches, as time permits, usually not for long periods of time.

Since the last shuttle mission STS-135 in 2011, NASA has been on an ambitious schedule to upgrade its infrastructure to be ready for its next generation of spaceflight,

the Space Launch System (SLS), with its Artemis 1 rocket. This is a U.S. next generation advanced super heavy-lift expendable launch vehicle scheduled to launch sometime in 2020 or later.

By the time the Space Shuttle program ended, several buildings, aircraft, tracking and relay systems, launch pads, miles of cabling, barges, transporters, fire and safety and cranes were well-used and maxed out in terms of their design life. Much of these systems were pretty much "on life support" and seriously in need of being upgraded or replaced prior to initiating this new program.

## Crucial upgrades

NASA, an acronym for the National Aeronautics and Space Administration, formed in 1958, is the federal agency that has long been responsible for overseeing activities related to aerospace research, aeronautics and the civilian space program. But in actuality, NASA is made up of thousands of subcontractors working under its umbrella.

One of these subs is PaR Systems, located

Since the last shuttle mission in 2011, NASA has been upgrading its infrastructure to get ready for its next generation of spaceflight with its Artemis 1 rocket.

## Pegasus barge

During the Space Shuttle era, NASA transported the massive space shuttle external tank, that measured 154-feet in length and 27.6 feet in diameter, on a custom-made covered sea-going barge named Pegasus for a distance of approximately 1,000 miles from NASA's Michoud Space Systems Assembly Facility near New Orleans down the west coast of Florida, around the Keys and up the east coast of Florida to the Kennedy Space Center (KSC).

During the downtime between the shuttle era and the new Space Launch System (SLS) program, NASA had Pegasus modified and refurbished to transport the SLS Core Stage Pathfinder to KSC for its new deep space mission. The SLS Core Stage Pathfinder measures 212-feet in length and 27.6 feet in diameter and measures over 50-feet longer than the older shuttle external tank. As the core stage is more than 50 feet longer than the space shuttle external tank and was more than 600,000 pounds heavier, some modifications were necessary to accommodate the greater length and additional weight.

In 2014, crews at Conrad Shipyard LLC in Morgan City, LA were given the task to refurbish the barge. A 115-foot section of the barge was removed and replaced with a 165-foot section which had been especially designed to allow for the increase in the cargo length and weight. The docking area at the NASA's KSC Vehicle Assembly Building (VAB) turning basin was also modified to accommodate the upgraded barge.

PHOTOS: ©JULIAN LEAK



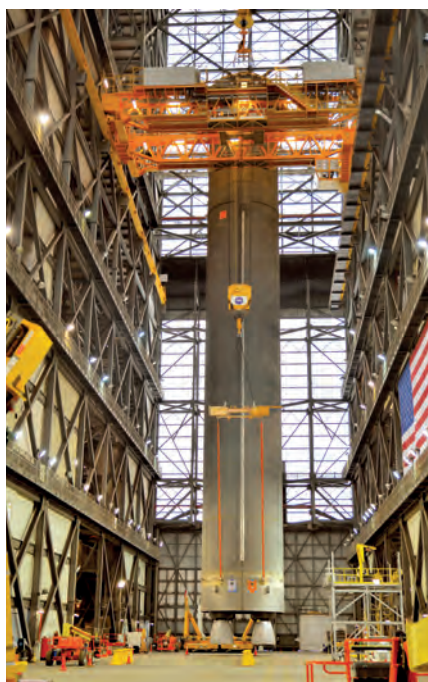
PaR's crane team that is stationed at the Kennedy Space Center is taking part in a lift-training program for the new SLS rocket.



# training



The forward end of the Core Stage Pathfinder was attached to a custom-made spider fixture with leveling capability.



After reaching a predetermined height level above the ground, the operation began with the two cranes working in tandem, one lifting and one holding position and then converging onto each other.

SLS Pathfinder Core Stage was rolled into the VAB on its self-propelled Wheelift Systems transporter, after arriving by barge from the Michoud Assembly Facility in New Orleans.

## Practice makes perfect

American Crane & Transport photographer Julian Leek was granted exclusive access to the restricted areas of the VAB high bays during this lift operation.



The Aft Lifting Equipment was attached to the rear Colby Crane and tandem-lifted the Core Stage off the transporter.



## Specialized transporters

NASA's Core Stage Transporters were procured from Wheelift/Doerfer and manufactured in Waverly, IA.

Each Self-Propelled Modular Transporter (SPMT) is rated to carry 75 tons. It takes four SPMTs to carry the Core Stage and its Ground Support Equipment, two under the front and two under the aft. There is a fifth SPMT that is used as a spare.

Each SPMT has 12-wheel modules with two wheels each for a total of 24 wheels. Therefore, the total load of the Core Stage, Ground Support Equipment and SPMTs is spread over 96 wheels. Each SPMT is powered by a Chevrolet V8 Engine running on propane. The engine drives a generator that provides power to the controlling computer, hydraulic pumps for lifting and servo drives for propulsion. The SPMTs can also be powered by external electrical cables instead of the propane engines.

The SPMTs can also be configured to work individually or grouped together in almost any configuration. When grouped in multi-mode to carry the Core Stage, they operate like a single system with a master wireless controller. The SPMTs are omni-directional and can maneuver in various drive modes including; normal, diagonal, lateral and can rotate about a center point or either end. Each SPMT weighs 60,000 pounds, is 33 feet long and 12 feet wide. The lowered deck height is 30 inches and the raised deck height is 42 inches. The SPMTs can travel up to 80 feet per minute but are restricted to 60 feet per minute when carrying the Core Stage.

There is constant communication between the forward and aft and the system will autocorrect if necessary.

Source: NASA

>36





### Landmark status

The Vehicle Assembly Building, or VAB, is a national landmark that remains a central element in NASA's plans to launch people and equipment deep into space on missions of exploration, including the agency's Journey to Mars. Built at NASA's Kennedy Space Center in Florida, it remains the only facility where assembly

of a rocket occurred that carried humans beyond low-Earth orbit and on to the Moon. For 30 years, it also served as the final assembly point for space shuttles to external fuel tanks and solid rocket boosters. The iconic facility will serve as the central hub of NASA's premier multi-user spaceport, capable of hosting several different kinds of rockets and spacecraft at the same time. Whether the rockets and spacecraft are going into Earth's orbit or being sent into deep space, the VAB will have the infrastructure to prepare them correctly for their missions.

Source: <https://www.nasa.gov/sites/default/files/atoms/files/vab-fact-sheet-3.pdf>

The forward end of the Core Stage Pathfinder was attached to a custom-made spider fixture with leveling capability onto the hook of the 325-ton Ederer crane. Another set of specialized lifting gear, the Aft Lifting Equipment (ALE), was attached to the rear Colby Crane and tandem-lifted the Core Stage off the transporter. After reaching a predetermined level height above the ground, the lifting operation

began with the two cranes working in tandem, one lifting and one holding position and then converging onto each other with one lifting while the other lowered the rear of the Core Stage until it was vertical and the rear attachments could be removed.

This was a test run and will be repeated a number of times with different operators before the actual flight-ready hardware



**Custom-built by Colby Crane 54 years ago, the 175-ton bridge crane has been heavily modified. Upgrades include new relay logic and wiring, an updated control system with Autron drives/PLCs and a new control cab.**

arrives. As with the Space Shuttle's external tank the SLS Core Stage will be hoisted up to the transfer isle and moved over to be lowered onto the mobile launch platform (MLP) where it will be mated to the solid rocket motors. ■

# PYTHON® Shaping Skyscrapers.

Shanghai Tower, 2nd tallest building in the world.  
2,073 ft high. Built with PYTHON® Compac-35  
non-rotating wire rope.

# PYTHON®

## HIGH PERFORMANCE WIRE ROPE

# PYTHON® AMERICA

[www.pythonrope.com](http://www.pythonrope.com)

1.708.647.4900





# TOWER IC CRANES NORTH AMERICA CONFERENCE & RECEPTION

**JUNE 22, 2020**  
Evening networking reception

**JUNE 23, 2020**  
Full-day conference

Miami Marriott Biscayne Bay, Miami, Florida, USA

**SAVE  
THE  
DATE**



The essential education and networking event for tower crane professionals across North America, providing a unique networking and learning opportunity.

IN 2018, OVER  
**290**  
DELEGATES  
REGISTERED

FROM  
**17**  
COUNTRIES

REPRESENTING  
**165**  
COMPANIES

#### TO FIND OUT ABOUT SPONSORSHIP OPPORTUNITIES CONTACT:

INTERNATIONAL  
**Mike Posener**  
TEL: +353 860 431219  
e-mail: mike.posener@khl.com

USA  
**Matt Burk**  
TEL: +1 312 496 3314  
e-mail: matt.burk@khl.com

#### EVENT PARTNER



**Specialized  
Carriers &  
Rigging  
Association**

OUR MEMBERS **LIFT & MOVE** THE WORLD

#### GOLD SPONSORS



**COMANSA**



**TOWER  
CRANES**



**TEREX®**

#### SILVER SPONSOR

**LIEBHERR**

#### WELCOME SPONSOR



**MORROW**

#### SUPPORTING SPONSORS



**BLOKCAM**



**INDUSTRIAL TRAINING  
INTERNATIONAL**  
crane personnel training programs

CREATED AND ORGANIZED BY

**INTERNATIONAL  
CRANES  
AND SPECIALIZED TRANSPORT**

**AMERICAN CRANES & TRANSPORT  
ACT**

**khl**

[www.khl-tcna.com](http://www.khl-tcna.com)



# BAY CRANE

Offering the largest and most modern fleet of cranes, full service heavy lift, and project transportation to the northeastern United States and beyond.

SERVICE. KNOW HOW. PROFESSIONALISM.

Locations in:

New York City, Long Island,  
New Jersey, Connecticut,  
Rhode Island, Massachusetts,  
and Westchester NY.



[www.baycrane.com](http://www.baycrane.com)

## Electric Pick & Carry Cranes

e: [info@jmgcranes.com](mailto:info@jmgcranes.com)  
[www.jmgcranes.com](http://www.jmgcranes.com)



**From 2 to 70 Ton**



Visit Us:  
Booth Nr. F3572  
March 10-14 2020 - Las Vegas, NV

**JMG**<sup>®</sup>  
movetosolution





NCCCO kicks off its anniversary year with the launch of a new website and program.



# 25 years of making a difference

NCCCO's efforts in workforce development, including Lift & Move USA, YouthBuild Philadelphia, and the ACE Mentor Program, will also take on increased visibility in 2020.

It was twenty-five years ago this month that the articles of incorporation that established NCCCO were officially filed, and so 2020 will be a year of both looking back at past accomplishments as well as forward to the work ahead. The year's events will draw to a head in October in a major celebration with an Anniversary Gala that will recognize the impact to the industry made by NCCCO, its certificants, volunteers, staff and industry partners.

To kick off the anniversary year, NCCCO launched its new website, bringing all of the content and functionality of its

previous site to a modern, mobile-friendly design. Now that people are relying more on their mobile devices for their primary internet access, the new website responds with content optimized for a variety of devices, including phones, tablets, and desktops.

## Industry involvement

This year NCCCO will also launch its Five-Star program to recognize crane operators who have recertified five times, and have therefore been continually certified since 1996, the first year that CCO certification became available. The continued commitment of those who embraced operator certification right out of the gate speaks volumes about the value that NCCCO has brought to the industry, as well as the safety benefits promised and delivered. "It's a remarkable achievement to be entering one's 25th year of certification," said Joel Oliva, NCCCO



Director of Operations. "Our hat goes off to all who qualify for this special recognition."

NCCCO's efforts in workforce development, including Lift & Move USA, YouthBuild Philadelphia and the ACE Mentor Program, will also take on increased visibility in 2020, although this activity, like NCCCO's

Safety, Information Research and Education Network (SIREN), are now the purview of the newly-formed NCCCO Foundation.

ANSI's recent recognition of NCCCO's contribution to the industry in this regard reflects the importance of these activities in maintaining a qualified workforce moving forward. ANSI's signaling that certifications such as NCCCO's can carry as much weight in qualifying candidates as four-year degrees has created important new opportunities for thousands of young people, many of whom may have not

“It's a remarkable achievement to be entering into one's 25th year of certification. Our hat goes off to all who qualify.”

JOEL OLIVIA, Director of Operations, NCCCO



“ The word is clearly out about the power of CCO certification to reduce risk and save lives.

**THOM SICKLESTEEL**  
Chief Executive Officer, NCCCO

”

previously considered moving directly into the building trades.

### A powerful tool

In response to numerous industry requests to serve the growing Spanish-speaking construction labor force, and in recognition of OSHA's crane rule which permits tests to be administered “in any language the candidate understands,” in 2020 NCCCO will also be making its CCO Mobile Crane Operator written certification exams available in Spanish. With data from the Department of Labor indicating that people of Hispanic or Latino ethnicity will represent almost 25 percent of the construction industry labor force, NCCCO determined that in order to continue to fulfill its mission to all stakeholders it needed to offer Spanish versions of its exams. The Spanish CCO exams are based on direct translations of the English language exams, with identical



content outlines, with the same number of questions, and with the same time limits.

“With no less than 12 certification programs, some with their own subcategories and more than one million exams administered, NCCCO has confirmed its place as the nation's leader in the development and administration of certification for crane operators and those working in related disciplines,” said NCCCO CEO, Thom Sicklestee.

“The sheer number of written, practical and recertification exams taken by over 225,000 candidates in more than 27 different crane and lifting equipment-related exam categories is a remarkable testimony to the success of CCO certification in establishing itself as an effective means of evaluating personnel competency. And in the process, we have provided employers with a powerful tool that has now been proven to reduce the number of injuries and fatalities on construction sites across this nation.”

“The word is clearly out about the power of CCO certification to reduce risk and save lives,” he said. “It's little wonder, then, that users and manufacturers of a wide range of construction and maintenance equipment, as well as personnel who work

in related disciplines in mid- to senior management positions, are seeking similar programs to address their own activities. As the organization specifically established by industry to develop such programs, and whose mission is laser-focused on improving safety wherever workers are potentially in harm's way, it is our privilege to serve all those who come in search of certification tools to mitigate that inherent risk,” Sicklestee added.

### Formal recognition

Of all of NCCCO's achievements over the past 25 years, being accredited in 1998, and formally recognized by OSHA in 1999, are perhaps the most notable (NCCCO programs are accredited by ANSI through 2022.) “That formal recognition by OSHA marked the beginning of a turning point for NCCCO certification and the industry as a whole,” said NCCCO President Kerry Hulse. Along the same lines, Vijay Krishna, Ed.D, ANSI's Senior Director for Personnel Credentialing Programs, noted that achieving ANSI accreditation was a major undertaking. “NCCCO can be very proud of this accomplishment,” he said. “No other accreditation process demands the degree of psychometric or management disclosure that ANSI requires for accreditation under ISO 17024.”

**NCCCO has brought new opportunities and recognition to the building trades.**





# SC&RA AWARDS

RECOGNIZING WORLDWIDE EXCELLENCE IN THE SPECIALIZED  
TRANSPORTATION, CRANE AND RIGGING INDUSTRY.

CATEGORIES INCLUDE:



JOB OF THE YEAR



DRIVER OF THE YEAR



CRANE OPERATOR  
SAFETY



LONGEVITY

ENTRIES  
NOW  
BEING  
ACCEPTED!

APPLY ONLINE AT  
[WWW.SCRANET.ORG/AWARDS](http://WWW.SCRANET.ORG/AWARDS)  
BY FEBRUARY 28, 2020



Specialized Carriers &  
Rigging Association

OUR MEMBERS **LIFT & MOVE** THE WORLD



[sales@nelsontrailers.com](mailto:sales@nelsontrailers.com)  
[www.nelsontrailers.com](http://www.nelsontrailers.com)  
Phone: 419-523-5321

Providing Solutions for all of North America



LET US ASSIST YOU WITH YOUR  
TRANSPORTATION NEEDS

Crane \* Rigging \* Construction \*  
Heavy Haul \* Oversize \* Aerospace

6448 State Route 224 Ottawa, Oh 45875



**Motec**  
Heavy-Duty Camera Solutions  
**AMETEK**



## MOTEC WORKVIEW SYSTEM

Wireless camera monitor system – suitable for any type of crane application



# One contract: four

**Bill Smith** discusses how having the right contract language gives your company four layers of protection.

If you've been in business for any length of time, you've likely heard about – or learned – one of the most important lessons there is to learn in the crane and rigging industry: If you have a claim, contract language can be the deciding factor in initiating complete risk transfer and suffering a policy limits loss.

By ensuring the legally preferred contractual language is embedded within each of your company's contracts, in accordance with each state's laws – whether it's a daily work ticket or a long-term rental agreement – you can effectively optimize your risk transfer potential, help mitigate your losses and do your part to fight against rising insurance costs.

## Clause clarification

However, while those are all really critical benefits to knowing and understanding what needs to be in your contracts, perhaps the biggest benefit is the fact that you're essentially teeing up four defenses in the event you find yourself immersed in a claim.

If your daily work ticket or contract has an Indemnification Clause, an Additional Insured Clause utilizing preferred language, a tie-in to the B-30 standards and a Care, Custody and Control Clause (also known as the Borrowed Servant clause), then you're putting yourself in the best possible position to defend yourself.

Here's how each of these break down. **INDEMNIFICATION CLAUSE.** At its most basic level, indemnity is the promise to pay for the cost of possible damage, loss or injury and determines the level of liability crane insurance policyholders are assuming or passing on to their customers.

**The goal with contract language is to tee up your defenses in the event your company becomes immersed in a claim.**



Indemnification is driven by the particular state you're operating in and is typically broad-based, intermediate or limited. Below is an example of each form of indemnity:

**1 Broad based:** The contractor is at fault – regardless of who is actually at fault – and indemnifies the crane company for the crane company's sole negligence, the contractor's sole negligence and any joint negligence of the two. The entire risk is transferred to the contractor. This is the most onerous of indemnity clauses and the one most targeted by anti-indemnity legislation.

**2 Intermediate:** The contractor assumes responsibility for its own sole negligence or partial negligence. If the crane company is solely at fault, there is no indemnity. There are two types of intermediate indemnity:

■ **Full Indemnity (“broad based”):** If the contractor is partially at fault, he pays all the damages. This allows a crane company who was 99 percent at fault to receive indemnity from the contractor who was only one percent at fault.

■ **Partial Indemnity:** Indemnity is on a sliding scale based on the extent of the contractor's negligence. This sets a cap on the amount of indemnity that can be had. If the crane company is 51 percent

at fault it is indemnified only for 49 percent of the total damages.

**3 Limited:** The contractor assumes only the responsibility for its own negligence – if it is solely at fault. There is no protection if the crane company is even partially at fault. All states allow limited indemnity provisions.

## **ADDITIONAL INSURED CLAUSE WITH PREFERRED CONTRACT LANGUAGE.**

Additional Insured clauses are often the most favorable risk transfer tools you can have in your contract for two reasons: (1) When you can't get protection through an indemnity clause, you may find protection through an Additional Insured clause; (2) Becoming an additional insured on your customer's insurance policy, by way of a written contract, affords you the same liability protection your customer would have under its insurance policy for covered claims, including defense obligations by the customer's insurer. By becoming an additional insured on your customer's insurance policy, you have two insurers to call on for defense and indemnity coverage.

**REQUIREMENTS FOR STANDARDS OF CARE/TIE IN TO ANSI B 30.5 ROLES AND RESPONSIBILITIES.** Incorporating the ASME B30.5 standard into your contract assists your insurer's defense team in




## **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.



# lines of defense



making liability arguments as to both the standard of care and responsibilities the contracting parties agreed to follow by. In the event of a loss where a dispute arises as to who was responsible for a specific task during crane operations, ASME B30.5 becomes the standard that guides litigators to delineating roles and responsibilities. Should one of the contracting parties fail to perform according to the standard of care outlined in the B30.5, litigators can refer back to the agreed-upon terms within the contract.

## **CARE, CUSTODY AND CONTROL CLAUSE.**

During crane operations, it's common for the crane operator to be working under the direction and supervision of another party, such as the customer's lift director and/or signal personnel. Who had the right to control the crane operators' activities becomes a critical liability argument. So to ward off liability as to who is responsible for directing the

“ You can effectively optimize your risk transfer potential, help mitigate your losses and do your part to fight against rising insurance costs. ”

crane operator's activities on a given job, crane service providers can benefit from inserting a “Care, Custody and Control Clause,” also known as “Right to Control” clause, into their daily work ticket or contract. In doing so, crane companies are contractually transferring the risk back to the customer and/or the customers who is supervising and/or directing the crane operator's activities at time of incident. ■

## SPECIALIZED TRANSPORTATION SYMPOSIUM

### WHO SHOULD ATTEND?

Owners, Safety Managers, Permit Officials, Sales Managers, Drivers

FEBRUARY 18-21, 2020  
SHERATON CHARLOTTE HOTEL,  
CHARLOTTE, NC



REGISTER NOW AT  
[WWW.SCRANET.ORG/SYMPOSIUM2020](http://WWW.SCRANET.ORG/SYMPOSIUM2020)





# Calling all training providers...

## ...Boost your class sizes!

Join the Fastest growing  
National course finder



NO SIGN  
UP FEES



INSTANT  
AUDIENCE

**easybook**  
**training**  
training for safety

For more information visit

**[www.easybooktraining.com](http://www.easybooktraining.com)**

or e-mail: [info@easybooktraining.com](mailto:info@easybooktraining.com) Toll Free: 1 833 278 1884



# Cybercrime primer

Digital criminals have their eyes on your fleet.

Otherwise known as computer-oriented crime, there are three major types of cybercrime: crimes against people, crimes against property and crimes against government.

Within that orbit, experts point out that the most popular cybercrimes to be aware of and protect yourself against are phishing scams, identity theft scams, online harassment, cyberstalking and invasion of privacy.

While no individual, company or even government is ever truly safe, transportation fleets should take particular note of certain countermeasures that, when applied with consistency and focus, can effectively combat the efforts of digital criminals. Tech-crime being what it is, the same rules that apply to your personal life should apply to your business. Protect your identity, be weary of tricky emails and similar scams and, without a doubt, protect your devices. This obviously includes keeping your credit card and social security numbers out of public view, as well as documents that contain delicate information.

But here's an eye-opener: nearly half of all cell phone users don't use a passcode. Moral of the story – use a passcode on all of your fleet's devices. To that end, two-step verification is suggested – especially when accessing various accounts.

As for those scam emails? They seem to get trickier and trickier. All the more reason for users to remain as vigilant as possible. Modern hackers design corrupt emails to look like IRS, Google, FBI or

even social media requests. Complete with familiar language and branding, they're easy to fall prey to. Make a point to never click on any links in these emails or texts on your phone. Those are access points, and once inside, cybercriminals are well versed in navigating your system(s), and the consequence is typically some type of corruption and the resulting ransom request.

## Desirable goals

One big risk for drivers is using their various devices (phone, computer, tablet, ELD) via an unsecured wi-fi connection. As much as drivers find themselves on the road, eating in places that provide wi-fi, as well as staying overnight in hotels that provide it, the risk is very high that users can be hacked by fake wi-fi networks that look very much like the network they should be on (HolidayInnwifi vs. FreeHolidayInnwifi). Train up your workforce to always confirm which wi-fi is the real one associated with the place they currently find themselves.

Consistent updating of all of your software systems is also a must. These updates contain the most up-to-date protections, which likely have been updated for that very reason – because the old one has been out in the world for a month or three or six, and is now too vulnerable to attack.

Another eye-opener: as estimated by consumer data market leader, Statista, there will be more than 80 million connected vehicles in existence in 2020. And although more and more private

vehicles have some kind of online technology, it is businesses and their fleets that most benefit from these technologies, thanks to the telematic data provided by OBD (on-board diagnostics) ports in vehicles. While originally designed to monitor emissions, OBD ports now provide all sorts of data, from the vehicle's location and driving parameters (speed, acceleration, etc.), to weight and type of freight, and the state of the vehicle's mechanical components.

Online security company, Panda, recently addressed the risks involved with this optimization tool, stating, "If the vehicles are transporting valuable goods, finding out the location and route of each vehicle, as well as what it is carrying, is a desirable goal for potential thieves."

Needless to say, gone are the days of the Hollywood snatch-and-grab heist – these days, cybercriminals snatch your vital information from thin air, if given the opportunity. But you can protect yourself and your business by remaining aware, consistent and up-to-date. While it might be inconvenient at times, don't settle for less within today's digital landscape. Don't let your fleet end up on the receiving end of a ransom request.

## CHIEF EXECUTIVE OFFICER



**Joel Dandrea**

5870 Trinity Parkway,  
Suite 200  
Centreville, VA 20120  
Ph: 703-698-0291  
Fax: 703-698-0297

## SC&RA Leadership

### CHAIRMAN

**Gary Stang**

Anderson Trucking Service,  
St. Cloud, MN

### PRESIDENT

**Tom Bennington**

Duncan Machinery Movers,  
Lexington, KY

### VICE PRESIDENT

**Jay Folladori**

Bennett International Group,  
McDonough, GA

### TREASURER

**Michael J. Vlaming**

Vlaming & Associates,  
Vallejo, CA

### ASSISTANT TREASURER

**Kevin L. Johnston**

J&R Engineering Co.,  
Mukwonago, WI

### ALLIED INDUSTRIES GROUP CHAIRMAN

**Michael Rosendahl**

PCE, Ridgewood, NJ

### CRANE & RIGGING GROUP

#### CHAIRMAN

**Ingo Schiller**

Tadano America, Houston, TX

### TRANSPORTATION GROUP

#### CHAIRMAN

**Ed Bernard**

Precision Specialized,  
Brantford, Ontario

### LADIES GROUP CHAIRWOMAN

**Kimberly Kitchen**

Kitchen's Crane & Equipment,  
Chesterfield, VA

### SC&R FOUNDATION

#### PRESIDENT

**Dave Wittwer**

Hays Companies,  
Salt Lake City, UT

#### VICE PRESIDENT

**Geoff Davis**

Unified Logistics Operating  
Group, Bethesda, MD

### TREASURER

**Jennifer Gabel**

JK Crane,  
Kenvil, NJ



SC&RA begins 2020 with a new insurance buildout.

# The power

Insurance and risk-management programs have always been a key component of SC&RA member operations. The goal is to provide member companies with an insurance option that integrates the specific needs of companies in this specialized industry while minimizing cost and exposure to risk.

New in 2020, SC&RA's Property & Casualty Insurance platform responds to the needs of members and strategic Board direction by providing a range of choices as well as additional education opportunities. The partners involved have demonstrated a commitment to the Association and offer innovative strategies and devoted staff driven to work with SC&RA members on their insurance and risk-management programs and initiatives.



“We'll continue trying to grow our business through the Association, and will be coming out with some new products that will allow us to grow – providing additional markets and capacity that we didn't have last year.”

**BILL TEPE, NBIS**



members, added Dandrea. “They're all uniquely qualified, they've all been in this space for a long time and we know that members tend to migrate to different producers for different reasons and tend to buy insurance from the markets for different reasons, based upon their exposure. Everyone involved in this new platform is very good at listening to their customers and studying and learning. They've demonstrated a commitment to partner with the Association and contribute resources in a variety of ways, from financial, to services, expertise and



**NATIONAL  
INTERSTATE  
INSURANCE**  
MEMBER OF GREAT AMERICAN INSURANCE GROUP

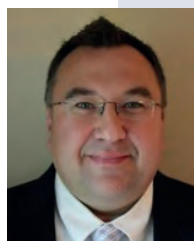
## Additional players

Structurally, the new platform is comprised of two Endorsed Market Partners – NBIS and National Interstate – and four Preferred Producers: Allied Insurance Brokers, Emery & Karrigan, TrueNorth Companies and USI Insurance Services.

“For the past twenty-three years, NBIS has been the exclusively endorsed property and casualty provider, and they have been and continue to be a great partner,” said SC&RA CEO Joel Dandrea. “This new platform is strengthened by addition, and as far as NBIS as the original partner is concerned, we fully expect them to continue to grow and improve as they have over the past twenty-three years.

“Over the last couple of years, we recognized a desire to open up additional options to members – from a standpoint of insurance, risk-management and educational offerings – and based on input from members buying these products and services, we felt it prudent to introduce additional players into the program.”

The combination of the two endorsed markets and the four preferred producers will bring a lot of information, products and service, and a wealth of expertise to Association



“The competition will only make us better; we've got a group of risk-control people that really bring a lot of value – a lot of unique insight – which is also something we've always admired about SC&RA.”

**SHAWN LOS, National Interstate**

educational content.”

The two-year agreement will also allow SC&RA a chance to listen to its membership and evaluate along the way, while continuing to work on improvements for the ultimate good of buyers through the best possible coverage, terms, contracts, risk-management services and education.

## Stepping up

While NBIS will maintain a robust presence and continue to develop and produce accordingly, SC&RA members can expect to see a variety of faces on stage, depending on the event, and increased overall visibility for the platform partners throughout the year.

“We'll continue trying to grow our business through the Association, and will be coming out with some new products that will allow us to grow – providing additional markets and capacity that we didn't have last year,” said Bill Tepe of NBIS. “We look forward to growing both our specialized transportation and crane and rigging programs. But, as usual, our primary focus is on risk management. We're excited about some new tools that will address some exposure that we see through our claims data, and how we can help the industry become safer. It's not just our insureds – it's the entire industry that we need to work to improve.”

National Interstate's Shawn Los echoed Tepe and sees the new platform as a way for all the partners to simply be better. “The SC&RA is one of the most forward-thinking groups we're involved with – safety conscious and always looking to be their best and enhance the industry,” he said. “And that's how we view ourselves and our responsibility to our customers.”

Los indicated that National Interstate has always been interested in increasing its



# of partnership



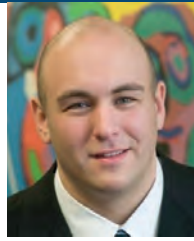
presence within the Association, and this opportunity affords them a chance to spotlight their strengths. "The competition will only make us better; we've got a group of risk-control people that really bring a lot of value – a lot of unique insight – which is also something we've always admired about SC&RA," he noted. "It will force us all to step up and, in many cases, innovate. But we think we can bring something highly customized, unique, relevant and meaningful to Association members. We're big believers in alternative risk transfer – different ways of financing risk – and we're eager to bring different options to the table that haven't been available to members until now."

## Ideas and perspectives

"The partnership and relationship with SC&RA is vital to what our customers are doing and for the education of everyone involved," said Jared Clough of Allied Insurance Brokers, "especially in the crane and rigging and specialized carriers space – as well as insurance – and how tightly it's a driver for their business, whether that's on cost or on the management of their risk."

Clough summarized the competition piece of the partnership as a simple fact of doing business, and ultimately "... an opportunity to display what resources Allied presents and the value proposition we bring to both the Association and the industry."

Rick Emery at Emery & Karrigan agreed, and added that it's also simply about offering more to SC&RA members. "When we were approached, it was apparent that there needs to be better information exchange through the Association's members. This is an opportunity to allow our



**Jared Clough,**  
Allied Insurance  
Brokers

perspective to be heard; we want to provide a different perspective than what other people have provided – based on thirty years of doing this at the highest level possible."

To that end, Clough pointed out that, "... if you're stagnant, you're dying. One of our drivers is

to continually innovate – continuous improvement is vital to what we look at on a daily basis through the leadership and through our entire organization."

Emery emphasized that, like Clough, while he's very excited to be involved, it's also vital to recognize NBIS for what they've accomplished across more than two decades of leadership within the Association. "They've done immensely good things for the industry; they've been an advocate and really offered their stewardship in a very productive way. But I think now it's an opportunity for other ideas and perspectives – in addition to what NBIS has proven it can do."

## Playing to strengths

"When we think about SC&RA and construction, infrastructure, transportation and people – all of these are near and dear to our heart," said TrueNorth's Dan Cook.

"As a company, we help corporations and their people manage risk, but we also help them maximize the resources that they have in their business, and capitalize on the commercial opportunities that are in front of them. I think this partnership can allow us to do that with a number of SC&RA members – help them grow and be successful."

The overall approach of multiple partner agencies is ultimately healthy for the industry, stressed Cook.

"It allows more choices for members, and it will allow



The overall approach of multiple partner agencies is ultimately healthy for the industry. It allows more choices for members and more customization...

**DAN COOK, TrueNorth Insurance**



**Jeff Haynes,**  
USI Insurance  
Services



more customization of service offerings to the unique needs of these companies. So, we're excited to be able to do what we do well with the folks that we fit well with."

Jeff Haynes at USI Insurance Services recognizes that there already is competition within SC&RA, but agrees with Cook that the partnership allows those involved to create an awareness of their capabilities with members in a way that plays to each partner's strengths.

"It gives all of us an opportunity to operate at a high level while at the same time increasing our visibility," he said. "Friendly collaboration with perceived competitors will always be a good thing. We've been doing this for thirty-five years – because of our size and expertise, I think this will be a very good opportunity for USI. And a very good option for SC&RA members."

**To explore your company's insurance and risk management options, see the full contact list of SC&RA's endorsed market partners and preferred producers at [scranet.org/insurance](http://scranet.org/insurance).**



**Rick Emery,**  
Emery & Karrigan





# WHERE TO BE IN

# 2020



## JANUARY BOARD & COMMITTEE MEETINGS

JANUARY 8-11  
SHERATON HACIENDA DEL MAR  
CABO, MX



## SPECIALIZED TRANSPORTATION SYMPOSIUM

FEBRUARY 18-21  
SHERATON CHARLOTTE HOTEL  
CHARLOTTE, NC



## ANNUAL CONFERENCE

APRIL 14-18  
OMNI AMELIA ISLAND PLANTATION  
AMELIA ISLAND, FL



## CRANE & RIGGING WORKSHOP

SEPTEMBER 16-18  
SHERATON DALLAS HOTEL  
DALLAS, TX



**JOIN SC&RA AND ATTEND ONE OF THESE EVENTS FOR FREE.\***  
**VISIT [WWW.SCRANET.ORG/JOIN](http://WWW.SCRANET.ORG/JOIN) TO GET STARTED.**

*\*Excludes the January Board & Committee Meeting*



# Safety resolutions

**Michael Rubin** discusses five New Year's safety resolutions for crane owners.

It's time to ring in the New Year and embark on creating a fresh set of safety New Year's resolutions for your company. The myriad ways to make 2020 better than 2019 might seem overwhelming, but one surefire way is to take a hard look at your existing safety and health program and seek to enhance your safety performance. Below are five different, distinct ways in which to do so – all consistent with the theme that everyone enjoy a happy, healthy and prosperous 2020.

**1 EVALUATE YOUR 2019 SAFETY PERFORMANCE.** It's always tempting at the end of the year to “turn the page” and look forward, not back. In the world of safety, however, the prior year offers a wealth of valuable information that cannot be overlooked.

Employers should analyze their 2019 lagging indicators, such as their OSHA recordable injuries (specifically, forms 300/301), lost workdays and Workers' Compensation costs. This should prompt a host of questions, such as: did you thoroughly investigate any accidents, determine the root cause, share the results with your workforce, implement appropriate controls and provide any necessary training or re-training? Also, does the injury data reflect any dangerous trends or emerging hazards? Furthermore, what about any close calls, near misses, or safety complaints? All of this is worthy of your scrutiny – and becoming a safety resolution.

**2 IDENTIFY HAZARDS.** Hazard identification is the first step in the risk assessment process and involves examining the work environment to identify those hazards associated with each

job or task. What better time to do this than now?

Ways to engage in the process of hazard identification include engaging in a comprehensive analysis of all of the following: i) your prior year's injury data; ii) inspection records; iii) self-audits; iv) safety meeting minutes; and v) lessons learned by others in the industry. Also, it sounds basic, but speak with your employees – engage with them. Ask them what concerns they have, what they believe can be improved and what they have observed. Communication, especially thoughtful discussion at all levels, is critical.

**3 REEMPHASIZE YOUR HEALTH AND SAFETY PLAN.** The best health and safety plan (HSP) won't get you very far if your employees don't know about it, have never been given a copy of it (or access in some way), have never received any training on it; and/or are never re-trained.

Employers should ensure that what their HSP says mirrors reality. That means if your HSP says you have a safety committee, you should have the committee. If your HSP says you use particular forms annexed as exhibits, you should use those forms. Same for your disciplinary policy. It should be a written document that is followed. Furthermore, one word of warning: an HSP should never simply sit on the shelf (this is an OSHA pet peeve – especially if dust is involved). Make it a resolution to use your HSP to your advantage. An HSP should be living, breathing, evolving and most of all, an effective/helpful resource.

**4 ANALYZE APPLICABLE OSHA SAFETY AND HEALTH STANDARDS.** This should not be deemed a “resolution,” but instead an absolute necessity. Indeed, the expression “ignorance of the law is no excuse” is just as true today as it ever was.

Crane owners should ensure their compliance with *all* applicable standards – not just the crane standards (found in Part 1926, Subpart CC) but other standards relating to PPE, electrical safety, hazard communication, recordkeeping and machine guarding, just to name a few. It's important to remember that OSHA might show up to inspect not only your

“ The myriad ways to make 2020 better than 2019 might seem overwhelming, but one surefire way is to take a hard look at your existing safety and health program and seek to enhance your safety performance. ”

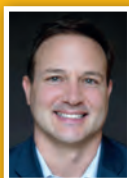
jobsites, but also your shop, yard and main office. Companies often get cited for not complying with OSHA's hazard communication standard. They often get cited for not complying with the recordkeeping regulations.

Also, make sure your record retention policy mirrors OSHA's. For example, your monthly and annual crane inspections must be documented and the written results maintained (monthly inspections for at least three months and annual inspections for at least 12 months). Compliance with OSHA's “minimum” safety standards must be one part of your comprehensive health and safety program.

**5 ENCOURAGE EMPLOYEE ENGAGEMENT.** Employee engagement starts and ends at the same place: at the top. It is critical that management lead by example and focus on creating a culture of safety. It should be no surprise then that the first core element identified by OSHA in its “*Recommended Practices for Safety and Health Programs*” is “management leadership.” There are many ways to encourage employee engagement, including implementing safety incentive programs – especially those that are tied to certain proven-to-be-effective leading indicators.

At all times, not just the start of the year, employee safety should be top of mind. All employers are encouraged to add some or all of the above resolutions to their plans. ■

## THE AUTHOR



**Michael Rubin** is chair of Goldberg Segalla's national OSHA and Worksite Safety Practice Group. A Certified Safety Professional (CSP), Michael

focuses his practice on issues involving occupational safety and health law.



Complete the form below or register online at: [www.khl.com/subs/ACT](http://www.khl.com/subs/ACT)

## 1 CHOOSE YOUR MAGAZINE/S

### American Cranes & Transport

Access International ☐  
Access, Lift & Handlers ☐  
Construction Europe (digital edition) ☐  
Construcción Latinoamericana (Spanish) ☐  
Construção Latino Americana (Portuguese) ☐  
Cranes & Project Transport Türkiye (Turkish) ☐  
Demolition & Recycling International ☐  
International Construction ☐  
International Construction Türkiye (Turkish) ☐  
International Cranes and Specialized Transport ☐  
International Rental News ☐

## 2 CHOOSE YOUR E-NEWSLETTER/S

### World Crane Week

Access International ☐  
Access, Lift & Handlers ☐  
Construction Europe ☐  
Construcción Latinoamericana (Spanish) ☐  
Construção Latino Americana (Portuguese) ☐  
Concreto Latinoamericano (Spanish) ☐  
Concreto Latino-Americano (Portuguese) ☐  
Demolition & Recycling International ☐  
国际建设月讯中文版 (Chinese) ☐  
International Rental News ☐  
International Rental News Product & Services Update ☐  
World Construction Week ☐  
KHL Crane Market ☐

## 3 ORGANIZATION TYPE

Construction Contractor / Consultant ☐  
Crane & Equipment Rental ☐  
Specialized / Heavy Transport / Rigging ☐  
Airports / Ports / Docks / Offshore ☐  
Public / Private Utilities ☐  
Manufacturer of Lifting Equipment ☐  
Energy - Windpower ☐  
Energy - Oil & Gas ☐  
Distributor / Agent / Equipment Sales ☐  
Power Generation ☐  
Other (Please specify): ☐

## 4 YOUR DETAILS

Name:   
Job title:   
Company:   
Address:   
Town:   
Country:   
State/County:   
Zip code/Post code:   
e-mail:

## 5 Do you purchase or influence the purchase of cranes and transport equipment or services?

YES ☐ NO ☐

## 6 What is the annual revenue of your company (US\$ millions):

Under \$1 million ☐ \$1-3 million ☐  
\$3-5 million ☐ \$5-20 million ☐  
\$20-100 million ☐ Over \$100 million ☐

## 7 FORMAT OF MAGAZINE

PRINT ☐ DIGITAL ☐ PRINT & DIGITAL ☐

## 8 YOUR PREFERENCES

KHL Group will keep you up-to-date with industry insight, products and events relevant to you as a professional in the construction or power industry.  
If you do not wish to receive such information, please tick the selected boxes below.

e-mail ☐ Telephone ☐ Post ☐

KHL Group works with other companies in the construction and power industry and will contact you about their products and services.

**I would like to receive e-mails from KHL about other third party products** ☐

All e-mails will contain a link in the footer to enable you to unsubscribe at any time.  
For more information, please see our Privacy Policy: [www.khl.com/privacy-policy](http://www.khl.com/privacy-policy)

## 9 SIGN AND DATE:

**SIGNATURE:**

**DATE:**

**MAIL TO:** KHL Group Americas, Circulation Department,  
20855 Watertown Road, Suite 220  
Waukesha, WI 53186-1873, USA  
**FAX TO:** +1 262 754 4175  
**e-mail:** [circulation@khl.com](mailto:circulation@khl.com)





**January 8-11, 2020**  
**SC&RA Board & Committee Meeting**  
 Sheraton Hacienda Del Mar  
 Cabo San Lucas, Mexico  
[www.scranet.org](http://www.scranet.org)

**February 4-7, 2020**  
**World of Concrete**  
 Las Vegas Convention Center  
 Las Vegas, NV  
[www.worldofconcrete.com](http://www.worldofconcrete.com)

**February 18-21, 2020**  
**SC&RA Specialized Transportation Symposium**  
 Sheraton Charlotte Hotel  
 Charlotte, NC  
[www.scranet.org](http://www.scranet.org)

**March 10-14, 2020**  
**ConExpo-Con/Agg Trade Show**  
 Las Vegas, NV  
[www.conexpoconagg.com](http://www.conexpoconagg.com)

**March 11, 2020**  
**Off-Highway Global Briefing** (During ConExpo)  
 Las Vegas, NV  
[www.offhighwaybriefing.com](http://www.offhighwaybriefing.com)

**April 14-18, 2020**  
**SC&RA Annual Conference**  
 Omni Amelia Island Plantation  
 Amelia Island, FL  
[www.scranet.org](http://www.scranet.org)

**April 14-18, 2020**  
**North American Iron Workers/IMPACT Conference**  
 Sheraton Grand Chicago  
 Chicago, IL  
[www.impact-net.org](http://www.impact-net.org)

## Brent's legacy honored with prestigious NCCCCO Award

The National Commission for the Certification of Crane Operators (NCCCCO) recently awarded its inaugural Lifetime Achievement Award to its founding CEO, Graham Brent. Brent, who recently stepped down from NCCCCO to take on a new role leading the NCCCCO Foundation, had

served as the organization's chief executive officer since 1996. The prestigious award was presented at the fourth Industry Forum on Personnel Qualifications in October 2019 in Crosby (Houston), TX, by Thom Sickelsteel who took over the position of CEO of NCCCCO on July 1.

"I'm humbled and deeply honored to receive this award," said Brent. "The progress we have made over almost 25 years in improving worksite safety through NCCCCO certification is profound and is a tribute to the tireless efforts of our dedicated and committed industry experts that have been with us throughout



**NCCCCO presented its inaugural Lifetime Achievement Award to its former CEO, Graham Brent.**

■ Kentucky headquartered crane manufacturer Link-Belt Cranes has named **Greg**



**George** district sales manager for the Rocky Mountain region of U.S. and Canada. George will be based in Omaha, NE.

■ The Caldwell Group has named **Jay Schroeder** regional sales manager. Schroeder will oversee sales for RUD,



Caldwell and Renfro products in the eastern half of the U.S. and Canada.

the journey. I feel incredibly privileged to have had the opportunity to contribute to this initiative which we now know conclusively has saved lives and avoided the pain and heartbreak of injury for so many."

## Wicklander named GM of Sunshine Crane

A veteran of the ALL Family of Companies, T.J. Wicklander, has been appointed general manager of ALL Sunshine

Crane Rental Corp. of Orlando, FL. Wicklander brings two decades of crane experience forged in the Greater Chicago area, where he served in a multitude of roles at Central Contractors Service, also an ALL branch. Wicklander began his career with the ALL family 19 years ago as a parts runner for Central Contractors Service.

"T.J. is a crane industry veteran with a wealth of knowledge to share," said Michael L. Liptak, president of the ALL Family of Companies. "His path is what makes ALL an industry leader. We know that the best employees are the best problem solvers. So those are the people we hire. Then



we train them to succeed and develop their skills so they can grow with our company."

Wicklander said the ALL name is strong in the market, and he plans to build on that success with the company's mix of fleet breadth, crane know-how, rent-ready condition and service and support. "This is a market where jobs are big and ever-changing," said Wicklander.

## Manitex announces organizational changes



Steve Filipov, newly appointed CEO of Manitex International has announced major developments at its Italian operations. As of November 1, the PM and Oil & Steel businesses now operate as separate divisions of Manitex International.

In addition to this change, two senior management appointments have

been made. **Giovanni Tacconi** has been named general manager for the PM articulated crane business, while **Fabrizio Girotti** will serve as general manager for the Oil & Steel aerial work platforms. Both will report directly to Filipov.





The ACT Marketplace is sponsored by

**easybook**  
**training**  
training for safety

Browse 1000s of safety training  
courses all in one place

**www.easybooktraining.com**

e-mail: info@easybooktraining.com Toll Free: 1 833 278 1884

# The Marketplace

ACT's Marketplace is designed to help readers find the products and services they need. It is divided into convenient categories including equipment for sale, crane & lifting services, transport & heavy haul, training and dealers & distributors.

## Training Directory

53

Find the company to fulfill your training needs

## Dealer Locator

54

Find a Dealer/Distributor by using ACT's Dealer Locator. When viewing online, check out the interactive map. Click and see where the dealers are and e-mail or go to their website from the map. From the printed page, please pick up the phone and call for your crane needs.

## Products, Parts & Accessories

61

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

69

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

## Safety & Industry Services

73

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.

## To advertise in the ACT Marketplace Contact

**BEV O'DELL**

**Tel:** 816-886-1858

**e-mail:** bev.odell@khl.com

**CINDY KIRBY**

**Tel:** 515-381-9519

**e-mail:** cindy.kirby@khl.com

**www.americancranesandtransport.com**





**All Purpose Safety Training Solutions**  
888-501-1355  
www.apcranetraining.com  
Lewis Trugillo  
info@apcranetraining.com



**Crane Tech**  
1-800-290-0007  
www.cranetech.com  
Tony Dotto  
tdotto@cranetech.com



**Industrial Training International**  
800.727.6355  
www.iti.com  
info@iti.com



**North American Crane Bureau Inc**  
1-800-654-5640  
www.cranesafe.com  
Monica McNeill  
nacbgrou@cranesafe.com



**RHTC, Inc.**  
(318) 330-9000  
www.rhtcinc.com  
Jeff Hairston  
jeffh@rhtcinc.com



**Crane Inspection & Certification Bureau**  
800-327-1386  
www.cicb.com  
Camille Singletary  
info@cicb.com



**Doc Bailey Construction**  
702-485-1457  
Las Vegas Facility  
5040 Alto Ave, Las Vegas, NV 89115  
Tower.Lattice.RT, Boom Truck Training & Testing



**Kissimmee Crane School**  
1-407-931-0015  
www.kisscranes.com  
Glenda Merkel  
Kisscranes@gmail.com



**Overton Safety Training, Inc.**  
(866) 531-0403  
www.overtonsafety.com  
Cody Fischer  
cody@overtonsafety.com



**Tower Crane School of Phoenix**  
1-480-993-3302  
www.towercraneschoolphoenix.com  
Jennifer Meadows  
jmeadows@towercraneschoolphoenix.com



**Crane Institute of America**  
800-832-2726  
www.craneinstitute.com  
James Headley  
info@craneinstitute.com



**Easybook Training**  
1-833-278-1884  
www.easybooktraining.com  
info@easybooktraining.com



**Morrow Training Center**  
1-503-585-5721 ext 0118 or 0128  
www.morrow.com  
Leena Ellis  
training@morrow.com



**Rigging Institute, LLC**  
(888) 416-1965  
www.rigginginstitute.com  
Eric Perry  
training@rigginginstitute.com



**Wika Mobile Control LP**  
(formerly Hirschmann / PAT)  
1-717 217-2255  
www.wika-mc.com  
Sarah Nell  
sarah.nell@wika.com

This is a paid advertisement. If you would like to be included, contact  
**Bev O'Dell - 816-886-1858 – bev.odell@khl.com or Cindy Kirby - 515-381-9519 - cindy.kirby@khl.com**



## Contact our Dealers



### H&E Equipment Services

Tel: 877-HE-CRANE  
[www.he-equipment.com](http://www.he-equipment.com)  
**Branches:**  
**Little Rock, AR.**  
 Tel: 501-568-7867  
**Springdale, AR.**  
 Tel: 479-927-1672  
**Phoenix, AZ.**  
 Tel: 602-232-0600  
**Tuscon, AZ.**  
 Tel: 520-770-1120  
**Boise, ID.**  
 Tel: 208-388-3323  
**Alexandria, LA.**  
 Tel: 318-443-7173  
**Baton Rouge, LA.**  
 Tel: 225-356-6113  
**Kenner, LA.**  
 Tel: 504-467-5906  
**Lafayette, LA.**  
 Tel: 337-837-9600  
**Lake Charles, LA.**  
 Tel: 337-528-2661  
**Shreveport, LA.**  
 Tel: 318-746-5272  
**Baltimore, MD.**  
 Tel: 410-477-6500

**Belgrade, MT.**  
 Tel: 406-388-2308  
**Jackson, MS.**  
 Tel: 601-373-0444  
**Billings, MT.**  
 Tel: 406-259-9720  
**Albuquerque, NM**  
 Tel: 505-764-8100  
**Arden, NC.**  
 Tel: 828-684-1692  
**Charlotte, NC.**  
 Tel: 704-504-2870  
**Las Vegas, NV.**  
 Tel: 702-320-6500  
**Raleigh, NC.**  
 Tel: 919-781-9454  
**Winston Salem, NC.**  
 Tel: 336-767-6900  
**Chatanooga, TN.**  
 Tel: 423-499-7700  
**Memphis, TN.**  
 Tel: 901-375-4902  
**Nashville, TN.**  
 Tel: 615-248-0266  
**Dallas, TX.**  
 Tel: 972-986-0910  
**Houston, TX.**  
 Tel: 713-433-6411  
**Salt Lake City, UT.**  
 Tel: 801-974-0388  
**Ashland, VA.**  
 Tel: 804-798-9740  
**Norfolk, VA.**  
 Tel: 757-295-4944

**Roanoke, VA.**  
 Tel: 540-362-3600  
**Warrenton, VA.**  
 Tel: 540-349-2878

**Kirby-Smith Machinery, Inc.**  
 6715 W. Reno,  
**Oklahoma City, OK. 73127**  
 Tel: 405-495-7820  
**Branches:**  
**Kansas City, KS.**  
 Tel: 877-851-5729  
**St. Louis, MO.**  
 Tel: 314-729-0125  
**Tulsa, OK.**  
 Tel: 918-438-1700  
**McAlester, OK**  
 Tel: 918-310-1550

**Shawmut Equipment Co, Inc**  
 20 Tolland Turnpike,  
**Manchester, CT. 06042**  
 Tel: 800-829-4161  
 860-643-4161  
[www.shawmutequipment.com](http://www.shawmutequipment.com)  
**Branches:**  
**South Easton, MA.**  
 Tel: 877-526-9213  
 508-238-1900  
**Shawmut Equipment of Canada, Inc**

**Saint John, NB.**  
 Tel: 888-594-8444  
 506-635-1550

**Stephenson Equipment, Inc**  
 7201 Paxton Street  
**Harrisburg, PA. 17111**  
 Tel: 800-325-6455  
[www.stephensonequipment.com](http://www.stephensonequipment.com)  
**Branches:**  
**McDonald, PA**  
 Tel: 800-692-7600  
**Pittston, PA**  
 Tel: 866-667-6756  
**Prospect Park, PA**  
 Tel: 800-220-4033  
**Syracuse, NY**  
 Tel: 800-368-6455  
**Waterford, NY**  
 Tel: 518-357-2200



### H&E Equipment Services

Tel: 877-HE-CRANE  
[www.he-equipment.com](http://www.he-equipment.com)  
**Branches:**  
**Birmingham, AL.**  
 Tel: 205-661-1323  
**Phoenix, AZ.**  
 Tel: 602-232-0600  
**Tuscon, AZ.**  
 Tel: 520-770-1120  
**Belle Chasse, LA.**  
 Tel: 504-394-7400  
**Baltimore, MD.**  
 Tel: 410-477-6500  
**Billings, MT.**  
 Tel: 406-259-9720  
**Albuquerque, NM.**  
 Tel: 505-764-8100

**Las Vegas, NV.**  
 Tel: 702-320-6500  
**Dallas, TX**  
 Tel: 972-986-0910  
**Houston, TX.**  
 Tel: 713-433-6411  
**Salt Lake City, UT.**  
 Tel: 801-974-0388  
**Ashland, VA.**  
 Tel: 804-798-9740  
**Norfolk, VA.**  
 Tel: 757-295-4944  
**Roanoke, VA.**  
 Tel: 540-362-3600  
**Warrenton, VA.**  
 Tel: 540-349-2878

**Kirby-Smith Machinery, Inc.**  
 6715 W. Reno,  
**Oklahoma City, OK. 73127**  
 Tel: 405-495-7820  
**Branches:**  
**Kansas City, KS.**  
 Tel: 877-851-5729  
**St. Louis, MO.**  
 Tel: 314-729-0125  
**Tulsa, OK.**  
 Tel: 918-438-1700  
**McAlester, OK**  
 Tel: 918-310-1550

**Shawmut Equipment Co, Inc**  
 20 Tolland Turnpike,  
**Manchester, CT. 06042**  
 Tel: 800-829-4161, 860-643-4161  
[www.shawmutequipment.com](http://www.shawmutequipment.com)  
**Branches:**  
**South Easton, MA.**  
 Tel: 877-526-9213,

508-238-1900  
**Shawmut Equipment of Canada, Inc**  
**Saint John, NB.**  
 Tel: 888-594-8444,  
 506-635-1550

**Stephenson Equipment, Inc**  
 7201 Paxton Street  
**Harrisburg, PA. 17111**  
 Tel: 800-325-6455  
[www.stephensonequipment.com](http://www.stephensonequipment.com)  
**Branches:**  
**McDonald, PA**  
 Tel: 800-692-7600  
**Pittston, PA**  
 Tel: 866-667-6756  
**Prospect Park, PA**  
 Tel: 800-220-4033  
**Syracuse, NY**  
 Tel: 800-368-6455  
**Waterford, NY**  
 Tel: 518-357-2200





# Contact our Dealers

## NATIONAL CRANE®

by Manitowoc

### H&E Equipment Services

Tel: 877-HE-CRANE  
www.he-equipment.com

#### Branches:

**Little Rock, AR.**  
Tel: 501-568-7867  
**Springdale, AR.**  
Tel: 479-927-1672  
**Phoenix, AZ.**  
Tel: 602-232-0600  
**Tucson, AZ.**  
Tel: 525-770-1120  
**Boise, ID.**  
Tel: 208-388-3323  
**Baltimore, MD.**  
Tel: 410-477-6500  
**Jackson, MS.**  
Tel: 601-373-0444  
**Albuquerque, NM.**  
Tel: 505-764-8100  
**Arden, NC.**  
Tel: 828-684-1692  
**Charlotte, NC.**  
Tel: 704-504-2870  
**Raleigh, NC.**  
Tel: 919-781-9454  
**Winston Salem, NC.**  
Tel: 336-767-6900

**Las Vegas, NV.**  
Tel: 702-320-6500  
**Columbia, SC.**  
Tel: 423-499-7700  
**Greenville, SC.**  
Tel: 864-272-2600  
**Salt Lake City, UT**  
Tel: 801-974-0388  
**Ashland, VA.**  
Tel: 804-798-9740  
**Norfolk, VA.**  
Tel: 757-295-4944  
**Roanoke, VA.**  
Tel: 540-362-3600.  
**Warrenton, VA.**  
Tel: 540-349-2878

### Kirby-Smith Machinery, Inc.

6715 W. Reno,  
**Oklahoma City, OK. 73127** Tel: 405-495-7820  
**Branches:**  
**Kansas City, KS.**  
Tel: 877-851-5729  
**St. Louis, MO.**  
Tel: 314-729-0125  
**Tulsa, OK.**  
Tel: 918-438-1700  
**Abilene, TX.**  
Tel: 325-692-6334  
**Amarillo, TX.**  
Tel: 806-373-2826

**Dallas, TX.**  
Tel: 214-371-7777  
**Ft Worth, TX.**  
Tel: 817-378-0600  
**Lubbock, TX.**  
Tel: 806-745-2112  
**Odessa, TX.**  
Tel: 432-333-7000  
**McAlester, OK**  
Tel: 918-310-1550

### Shawmut Equipment Co, Inc

20 Tolland Turnpike,  
**Manchester, CT. 06042**  
Tel: 800-829-4161,  
860-643-4161

www.shawmutequipment.com

#### Branches:

**South Easton, MA.**  
Tel: 877-526-9213,  
508-238-1900  
**Shawmut Equipment of Canada, Inc**  
**Saint John, NB.**  
Tel: 888-594-8444,  
506-635-1550

### Stephenson Equipment, Inc

7201 Paxton Street  
**Harrisburg, PA. 17111**  
Tel: 800-325-6455  
www.stephensonequipment.com

#### Branches:

**McDonald, PA**  
Tel: 800-692-7600  
**Pittston, PA**  
Tel: 866-667-6756  
**Prospect Park, PA**  
Tel: 800-220-4033  
**Syracuse, NY**  
Tel: 800-368-6455  
**Waterford, NY**  
Tel: 518-357-2200



### Bigge Equipment

10700 Bigge Ave,  
**San Leandro, CA. 94577**  
Tel: 510-681-0918  
e-mail: cranesales@bigge.com  
www.bigge.com  
**Branches:**  
**Houston, TX.**  
Tel: 510-681-0918  
**La Mirada, CA.**  
Tel: 510-681-0918

### Rapicon Inc

924 Burton Road  
**Vars ON. K0A 3H0**  
Tel: 613 443-1323  
www.rapicon.ca  
e-mail: redemond@rapicon.ca

### RMS Cranes

1900 E 66th Avenue  
Denver, CO 80229  
Tel: 800-588-7095  
e-mail: info@rmscranes.com  
www.rmscranes.com

### Shawmut Equipment Co, Inc

20 Tolland Turnpike,  
**Manchester, CT. 06042**  
Tel: 800-829-4161, 860-643-4161  
www.shawmutequipment.com  
**Branches:**  
**South Easton, MA.**  
Tel: 877-526-9213, 508-238-1900  
**Shawmut Equipment of Canada, Inc**  
**Saint John, NB.**  
Tel: 888-594-8444,  
506-635-1550

### Stephenson Equipment, Inc

7201 Paxton Street  
**Harrisburg, PA. 17111**  
Tel: 800-325-6455  
www.stephensonequipment.com

#### Branches:

**McDonald, PA**  
Tel: 800-692-7600  
**Pittston, PA**  
Tel: 866-667-6756  
**Prospect Park, PA**  
Tel: 800-220-4033  
**Syracuse, NY**  
Tel: 800-368-6455  
**Waterford, NY**  
Tel: 518-357-2200

### Transport Equipment Sales (TES)

**Kearny, NJ.**  
Tel: 973-589-4100  
e-mail: info@tes-inc.net  
www.tes-inc.net



## Contact our Dealers

### Coastline Equipment Crane Division

325 N. 5th Street, Bldg. A, Sacramento, CA. 95811

Tel: 916-440-8090

www.coastlinecd.com

#### Branches:

Santa Ana, CA.	Tel: 714-265-6550
Long Beach, CA.	Tel: 562-273-7013
Bakersfield, CA.	Tel: 661-399-3600
Oxnard, CA.	Tel: 805-485-2106
Santa Maria, CA.	Tel: 805-922-8329
Las Vegas, NV.	Tel: 702-399-2700
Elko, NV.	Tel: 775-777-7070
Meridian, ID.	Tel: 208-888-3337
Jerome, ID.	Tel: 208-324-2900
McCall, ID.	Tel: 208-634-3903

### CraneWorks, Inc.

www.Crane-Works.com

e-mail: sales@Crane-Works.com

#### Branches:

Houston, TX	Tel: 832-280-8737
Kansas City, KS	Tel: 913-308-0184
Bakersfield, CA	Tel: 661-765-8891
San Diego, CA	Tel: 760-906-8044
Denver, CO	Tel: 303-710-8308
Orlando, FL	Tel: 407-307-2562
Hampton, NJ (NYC/PHL)	Tel: 908-336-9651
Dallas/Ft. Worth, TX	Tel: 817-497-8217
Calgary, AB	Tel: 403-907-0804

### Cropac Equipment Inc.

1-800-4-CROPAC

www.cropac.com, e-mail: sales@cropac.com

#### Branches:

Abbotsford, B.C.	Tel: 604-755-3927
Oakville, ON.	Tel: 905-825-6377
Laval, QC.	Tel: 450-625-4738
Nisku, AB.	Tel: 780-955-8862

### Dozier Crane & Machinery, Inc.

155 Pine Barren Rd, Pooler, GA. 31322

Tel: 912-748-2684, Parts: 877-541-3754

www.DozierCrane.com, Sales@DozierCrane.com

Dealer for boom trucks and carry deck cranes in GA, AL & LA.

### Exact Crane & Equipment Corp

www.ExactCrane.com

e-mail: Sales@exactcrane.com; Parts@exactcrane.com

#### Branches:

Cleveland, OH	Tel: 440-349-1999
Louisville, KY	Tel: 985-381-4988

### Empire Crane Co, LLC

12 Mear Road, Holbrook, MA 02343

www.empirecrane.com, e-mail: sales@empirecrane.com

Tel: 315-458-4101; 800-342-7575; Parts: 315-701-4933

e-mail: sales@empirecrane.com

#### Branches:

Billerica, MA.	Tel: 508-868-7734
Luke@empirecrane.com	
Bridgewater, NJ (NYC/NJ)	Tel: 908-203-0400
sales@empirecrane.com	

### Giuffre Bros. Cranes, Inc.

6635 South 13th Street, Milwaukee, WI. 53221

Tel: 414-764-9200

www.giuffre.com, e-mail: tproctor@giuffre.com

#### Branches:

CICERO, IL.	Tel: 708-656-9200
e-mail: tproctor@giuffre.com	

### H&E Equipment Services

Tel: 877-HE-CRANE

www.he-equipment.com

#### Branches:

Little Rock, AR.	Tel: 501-568-7867
Springdale, AR.	Tel: 479-927-1672
Alexandria, LA.	Tel: 505-764-8100
Baton Rouge, LA.	Tel: 225-356-6113
Kenner, LA.	Tel: 504-467-5906
Lafayette, LA.	Tel: 337-837-9600
Lake Charles, LA.	Tel: 337-528-2661
Shreveport, LA.	Tel: 318-746-5272
Dallas, TX.	Tel: 972-986-0910
Houston, TX.	Tel: 713-433-6411

### Transport Equipment Sales (TES)

Kearny, NJ.

Tel: 973-589-4100

www.tes-inc.net, e-mail: info@tes-inc.net





## LOWER YOUR CRANE OWNING AND OPERATING COSTS

To improve your ROI contact an authorized Tadano dealer below:



### Bigge Equipment

10700 Bigge Ave.

**San Leandro, CA 94577**

Tel: 510-681-0908

e-mail: cranesales@bigge.com

www.bigge.com

Authorized dealer in AZ, CO, NM, UT.

#### Branches:

**Arizona** Tel: 510-681-0908

**Henderson, CO** Tel: 510-681-0908

**New Mexico** Tel: 510-681-0908

**Salt Lake City, UT** Tel: 510-681-0908

### Coastline Equipment Crane Division

325 N. 5th Street, Bldg. A

**Sacramento, CA. 95811**

Tel: 916-440-8090

www.coastlinecd.com

Authorized dealer in CA, ID, NV.

#### Branches:

**Santa Ana, CA** Tel: 714-265-6550

**Long Beach, CA** Tel: 562-273-7013

**Bakersfield, CA** Tel: 661-399-3600

**Oxnard, CA** Tel: 805-485-2106

**Santa Maria, CA** Tel: 805-922-8329

**Las Vegas, NV** Tel: 702-399-2700

**Elko, NV** Tel: 775-777-7070

**Meridian, ID** Tel: 208-888-3337

**Jerome, ID** Tel: 208-324-2900

**McCall, ID** Tel: 208-634-3903

### Exact Crane & Equipment Corp

www.ExactCrane.com

Email: Sales@exactcrane.com

Parts@exactcrane.com

#### Branches:

**Cleveland, OH** Tel: 440-349-1999

**Louisville, KY** Tel: 985-381-4988

Authorized dealer for KY, MI, OH

### Cropac Equipment Inc.

1007 South Service Road

**Oakville, Ontario L6L 6R3 Canada**

1-800-4-CROPAC/ 905-825-6377

www.cropac.com

e-mail: sales@cropac.com

Authorized dealer in:

Newfoundland-Labrador

Nova Scotia

Prince Edward Island

New Brunswick

Manitoba

Tel: 800-427-6722

#### Branches:

**Laval, QB** Tel: 450-625-4738

**Oakville, ON** Tel: 905-825-6377

### Heavy Iron Cranes

411 Burton Road

**Lexington, SC 29072**

Tel: 803-358-9191

E-mail: levy@heavyironcranes.com

www.heavyironcranes.com

### Scott-Macon Equipment

14925 S. Main

**Houston, TX. 77035**

Tel: 713-721-7070

www.smequipment.com

Authorized dealer for OK, TX.

#### Branches:

**Corpus Christi, TX.** Tel: 361-289-2782

**Dallas, TX.** Tel: 214-391-4000

**Big Spring, TX** Tel: 432-271-4650

**San Antonio, TX** Tel: 210-960-9938

**Tulsa, OK.** Tel: 918-224-2000

**Oklahoma City, OK** Tel: 405-673-8509

TADANO AMERICA CORPORATION 4242 W Greens Rd Houston, TX 77066 281-869-0030

<https://tadanoamerica.com/dealers/>



## FIND A DEALER NEAR YOU!

### Coastline Equipment Crane Division

325 N. 5th Street, Bldg. A  
Sacramento, CA. 95811  
Tel: 916-440-8090  
www.coastlinecd.com

#### Branches:

**Santa Ana, CA**  
Tel: 714-265-6550  
**Long Beach, CA**  
Tel: 562-273-7013  
**Bakersfield, CA**  
Tel: 661-399-3600  
**Oxnard, CA**  
Tel: 805-485-2106  
**Santa Maria, CA**  
Tel: 805-922-8329  
**Las Vegas, NV**  
Tel: 702-399-2700  
**Elko, NV**  
Tel: 775-777-7070  
**Meridian, ID**  
Tel: 208-888-3337  
**Jerome, ID**  
Tel: 208-324-2900  
**McCall, ID**  
Tel: 208-634-3903

### Cropac Equipment Inc.

www.cropac.com  
Tel: 1-800-4-CROPAC  
sales@cropac.com

#### Branches:

**Oakville, ON.**  
Tel: 905-825-6377  
**Laval, QC.**  
Tel: 450-625-4738

### Exact Crane & Equipment Corp

**Cleveland, OH**  
www.ExactCrane.com  
Tel: 440-349-1999  
Sales@exactcrane.com  
Parts@exactcrane.com

### Empire Crane Co, LLC

7021 Performance Dr,  
**N Syracuse, NY 13212**  
www.empirecrane.com  
Tel: 315-458-4101;  
800-342-7575;  
Parts: 315-701-4933  
e-mail:  
sales@empirecrane.com  
**Branches:**  
**Billerica, MA.**  
Tel: 508-868-7734  
Luke@empirecrane.com  
**Bridgewater, NJ (NYC/NJ)**  
Tel: 908-203-0400  
sales@empirecrane.com

### Scott-Macon Equipment

14925 S. Main,  
**Houston, TX. 77035**  
Tel: 713-721-7070  
www.smequipment.com

#### Branches:

**Corpus Christi, TX.**  
Tel: 361-289-2782  
**Dallas, TX.**  
Tel: 214-391-4000  
**San Antonio, TX.**  
Tel: 210-629-0400  
**Midland, TX.**  
Tel: 432-517-4378  
(Field Service Office)  
**Tulsa, OK.**  
Tel: 918-224-2000  
**Houma, LA.**  
Tel: 985-851-1118  
**Baton Rouge, LA.**  
Tel: 225-753-4111  
(Lake Charles Area)  
**Sulphur, LA.**  
Tel: 337-882-0197



CONGRATULATIONS!  
YOU'RE #1



Contact us today to get  
the treatment you deserve.

**ELLIOTT**  
EQUIPMENT COMPANY

**Built for You.**

sales@elliottequip.com  
(402) 592-4500  
www.elliottequip.com

## Find a dealer near you

### ML Cranes & Equipment

3908 N. Graham Street,  
**Charlotte, NC.** 28206  
Tel: 877-649-7739  
www.mlcranes.com

#### Branches:

**Baltimore, MD.**  
**Bridgeville, DE.**  
**Chesapeake, VA.**  
**Manassas, VA.**  
**Richmond, VA.**  
**Roanoke, VA.**  
**Winchester, VA.**  
**Wise, VA.**

### Coastline Equipment Crane Division

325 N. 5th Street, Bldg. A  
**Sacramento, CA.** 95811  
Tel: 916-440-8090  
www.coastlinecd.com

#### Branches:

**Santa Ana, CA.**  
Tel: 714-265-6550  
**Long Beach, CA.**  
Tel: 562-273-7013  
**Bakersfield, CA.**  
Tel: 661-399-3600  
**Oxnard, CA.**  
Tel: 805-485-2106  
**Santa Maria, CA.**  
Tel: 805-922-8329  
**Las Vegas, NV.**  
Tel: 702-399-2700  
**Elko, NV.**  
Tel: 775-777-7070  
**Meridian, ID.**  
Tel: 208-888-3337  
**Jerome, ID.**  
Tel: 208-324-2900  
**McCall, ID.**  
Tel: 208-634-3903



## Contact your authorized Link-Belt distributor today!

### Triad Machinery

www.triadmachinery.com  
Tel: 503-254-5100

**Portland, OR**      **Seattle/Tacoma, WA**  
**Eugene, OR**      **Spokane, WA**  
**Bend/Prineville, OR**      **Mt Vernon, WA**

Burl Redman - Crane Specialist (OR)  
503-318-2140

Will Hayes - Crane Specialist (WA)  
206-450-5220

### Link-Belt Mid-Atlantic Construction Equipment

10020 Lickinghole Road,  
**Ashland, VA.** 23005  
Tel: 804-798-2290, 800-552-3837  
E-mail: dcoffey@linkbelt.com  
www.link-beltmidatlantic.com

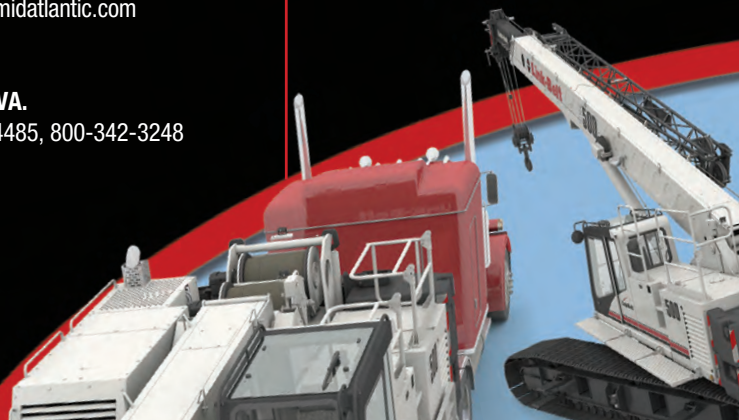
#### Branches:

**Chesapeake, VA.**  
Tel: 757-485-4485, 800-342-3248

### Transport Equipment Sales (TES)

**Kearny, NJ.**  
Tel: 973-589-4100  
E-mail: info@tes-inc.net  
www.tes-inc.net

**www.linkbelt.com**





**TEREX®**

**TEREX®**

Cranes

© Terex Cranes 2019 Terex, the Terex Crown design are trademarks of or licensed by Terex Corporation or its subsidiaries.





# OVERHAUL BALL ASSEMBLIES



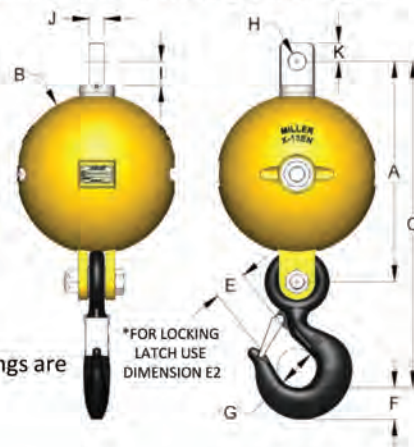
Charlton, Massachusetts USA • [www.millerproducts.net](http://www.millerproducts.net) • Tel. 1-800-733-7071 E-mail: [sales@millerproducts.net](mailto:sales@millerproducts.net)

## MILLER **SOLID-BALL®** TOP SWIVELING Y-LINK OVERHAUL BALL ASSEMBLIES

Miller's highest-performance Y-Link overhaul ball assemblies are uniquely equipped with angular contact ball bearing (ACBB) swivels for maximum response to wire rope dynamics under load. The ACBB swivel contains a set of multiple, precision-matched bearings which respond with significantly lower friction and torque than do the basic thrust bearing overhaul balls found elsewhere. In addition to the improved responsiveness, long term durability is greatly enhanced due to longer bearing life.



- Miller Type 2, eye to hook arrangement
- Working load capacities from 5 to 35 tons
- Design safety factor of 5:1
- Weights to 1450 lbs. for up to 1 1/2" rope
- Features Miller Y-Link® ACBB swivel
- Swivel lubrication fitting
- Drop forged steel eye hook with safety latch
- Optional positive locking latch (shown at left)
- Heavier units available
- Bottom swiveling available
- Integrated wedge socket or clevis as upper fittings are available
- Available in full conformance with API2C



WLL (tons)	MODEL	ROPE SIZE (in)	A (in)	B	C	E	E2	F	G	H	I	J	K	WT. LBS.
5	HB7-2N	5/8	13.56	7	20.38	1.61	1.31	1.81	2.50	1.28	1.56	1.00	1.19	65
5	HB8-2N	5/8	13.56	8	20.38	1.61	1.31	1.81	2.50	1.28	1.56	1.00	1.19	100
8.5	HB9B-2N	3/4	16.31	9	25.56	2.27	2.00	2.59	3.25	1.41	1.94	1.25	1.50	130
8.5	HB10B-2N	3/4	16.31	10	25.56	2.27	2.00	2.59	3.25	1.41	1.94	1.25	1.50	170
8.5	HB11B-2N	3/4	17.19	11	26.44	2.27	2.00	2.59	3.25	1.41	1.94	1.25	1.50	215
8.5	HB12-2N	3/4	17.19	12	26.44	2.27	2.00	2.59	3.25	1.41	1.94	1.25	1.50	265
8.5	HB13B-2N	3/4	18.19	12	27.44	2.27	2.00	2.59	3.25	1.41	1.94	1.25	1.50	330
10	HB13C-2N	7/8	22.06	13	32.81	3.02	2.75	3.00	4.25	1.66	2.84	1.72	1.81	363
10	HB13-2GN	9/16 - 1-1/4	21.84	13	32.59	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	363
15	HB13-2GGN	9/16 - 1-1/4	21.88	13	32.63	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	363
15	HB13D-2N	1	21.75	13	32.50	3.02	2.75	3.00	4.25	2.03	2.78	1.94	2.13	363
25	HB13E-2N	1-1/2	25.56	13	37.75	3.25	3.25	3.62	5.00	2.31	2.88	2.25	2.38	413
35	HB13F-2N	1-1/2	25.56	13	41.50	3.00	3.00	4.56	5.38	2.31	2.88	2.25	2.38	487
10	HB16-2N	7/8	24.56	16	35.31	3.02	2.75	3.00	4.25	1.66	2.84	1.72	1.81	600
10	HB16-2GN	9/16 - 1-1/4	24.34	16	35.09	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	600
15	HB16-2GGN	9/16 - 1-1/4	24.38	16	35.13	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	600
15	HB16B-2N	1	24.25	16	35.00	3.02	2.75	3.00	4.25	2.03	2.78	1.94	2.13	600
25	HB16C-2N	1-1/2	26.94	16	39.63	3.25	3.25	3.62	5.00	2.31	2.88	2.25	2.38	650
35	HB16D-2N	1-1/2	26.94	16	44.00	3.00	3.00	4.56	5.38	2.31	2.88	2.25	2.38	720
10	HB18G-2N	7/8	25.19	18	37.71	3.02	2.75	3.00	4.25	1.66	2.84	1.72	1.81	800
10	HB18-2GN	9/16 - 1-1/4	24.97	18	37.49	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	800
15	HB18GG-2N	1	24.87	18	37.40	3.02	2.75	3.00	4.25	2.03	2.78	1.94	2.13	800
15	HB18-2GGN	9/16 - 1-1/4	25.00	18	37.53	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	800
15	HB22GG-2N	1	29.25	22	40.03	3.02	2.75	3.00	4.25	2.03	2.78	1.94	2.13	1300
15	HB22-2GGN	9/16 - 1-1/4	29.38	22	40.16	3.02	2.75	3.00	4.25	1.78	2.75	1.25	2.00	1300
25	HB22H-2N	1-1/2	32.19	22	44.50	3.25	3.25	3.62	5.00	2.31	2.88	2.25	2.38	1400
35	HB22HH-2N	1-1/2	32.19	22	48.13	3.00	3.00	4.56	5.38	2.31	2.88	2.25	2.38	1450



• LUBE-A-BOOM • LUBE-A-BOOM • LUBE-A-BOOM • LUBE-A-BOOM • LUBE-A-BOOM • LUBE-A-BOOM • LUBE-A-BOOM





# Contact Your Nearest Dealer



**Certified Boom Repair**  
www.certifiedboomrepair.com



**Cleveland Crane and Shovel**  
Bedford Heights, OH 44146  
800-362-8494  
www.craneandshovel.net



**Dakota Riggers & Tool Supply**  
www.dakotariggers.com



**Flaherty Equipment**  
Newton, MA  
781-736-9009  
www.flahertyequipment.com



**Hayden-Murphy Equipment Co.**  
Bloomington, MN  
800-352-2757  
www.hayden-murphy.com



**Stevenson Crane Service**  
www.stevensoncrane.com



**Transport Equipment Sales**  
Kearny, NJ  
800-255-5512  
www.tes-inc.net



**Walter Payton Power Equipment**  
IN, IL, MI, KY  
800-922-5508  
www.wppellc.com



**Western Pacific Crane & Equipment**  
CA, HI, WA, AK, HI, OR, NV, ID,  
Guam & Marshall Islands  
855-927-2637  
www.wpcrane.com

For a full listing of dealers, please visit our website at  
[www.lubeaboom.com](http://www.lubeaboom.com)

## LUBE-A-BOOM® SHUTTLE TUBE

- 15oz shuttle tube of Original LUBE-A-BOOM®
- Fits the LubeJet-eco by MATO GmbH
- LUBE-A-BOOM® part no. LAB027



## LUBE-A-PIN™ SHUTTLE TUBE

- High performance and long life.
- 5% Moly fortified.
- Superior high temperature properties.
- Exceptional pressure, shock loading and wear protection.
- Outstanding rust and corrosion protection.
- Excellent water washout resistance.
- Outstanding resistance to heat.
- Versatile, multi-purpose.
- Nontoxic and environmentally friendly.

Part No. LAB028 15oz shuttle tube.  
Also available in pails, kegs & drums

## LUBE-A-ROPE LIQUID

- Specially formulated liquid lubricant
- For Wire Ropes, cables, chains & gears
- Wipe, brush or spray on
- Repels water and salt water
- Won't fling off
- High Load carrying properties
- Heavy lubricating protective shield that penetrates the wire strands

**AWARD  
WINNING**

**NEW**

## LOOSE-N-IT

- 4-in-1 lubricating & penetrating oil
- Inhibits rust & corrosion by adding protective layer
- Prevents breaking off or corroded or rusty parts
- Loosens threads
- Displaces water & moisture from contacts

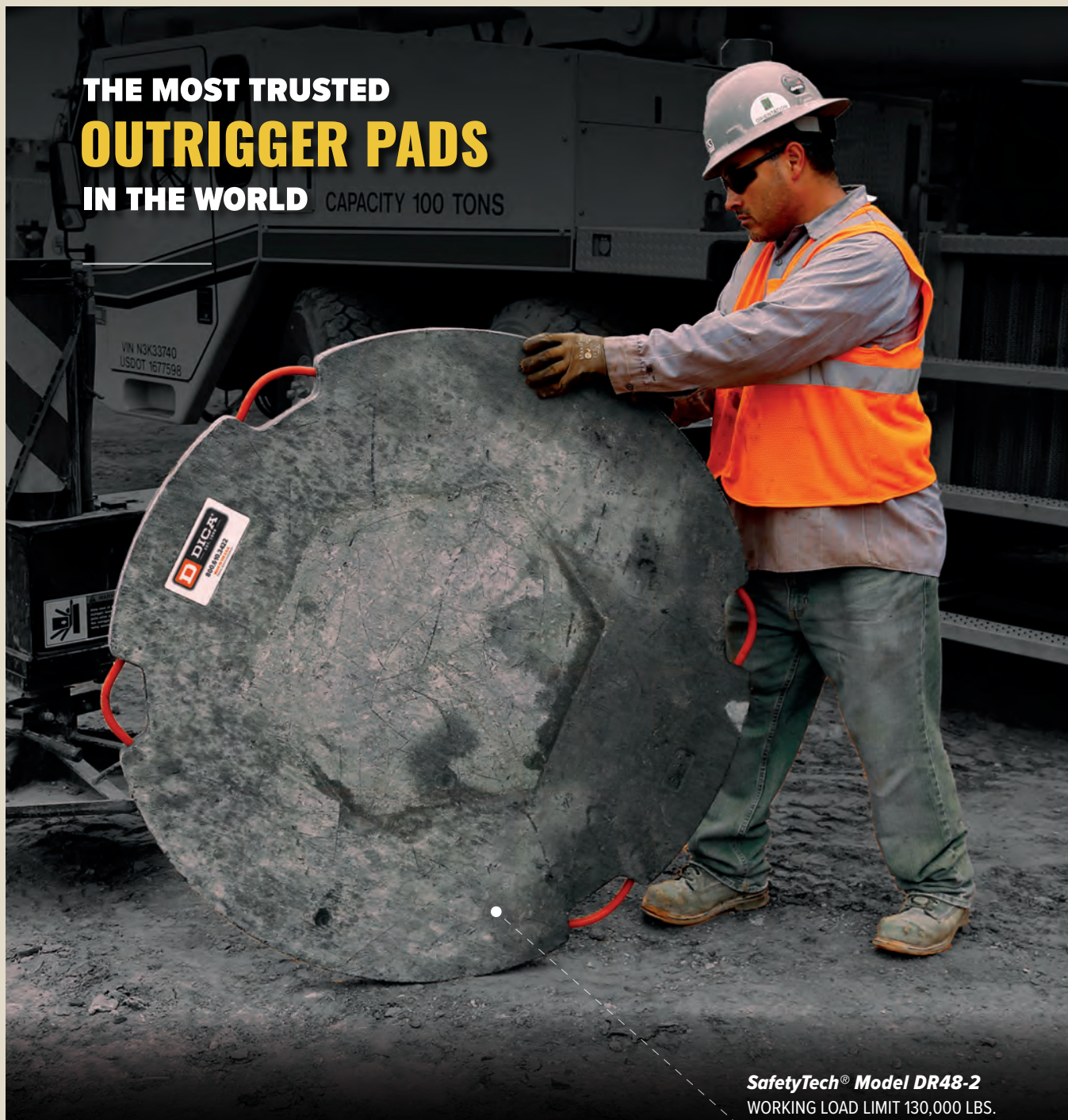
## LUBE-A-BOOM® INSULATOR dielectric spray

**NEW**



# THE MOST TRUSTED **OUTRIGGER PADS** IN THE WORLD

CAPACITY 100 TONS



**SafetyTech® Model DR48-2**  
WORKING LOAD LIMIT 130,000 LBS.

## CONFIDENCE ON EVERY SETUP

Engineered **SafetyTech® Outrigger Pads** help operators remove uncertainty from their setups. Give your crews the performance they need on every job.

**DICAUSA.COM | 888.713.0747**







# TRAINED & PROTECTED

Sigalarm Training Course and  
Monitoring App Now Available!



VISIT OUR BOOTH  
**#100707**

SIGN UP NOW:

**APP.SIGALARMINC.COM**

**866-644-5826**

PRODUCTS, PARTS & ACCESSORIES • PRODUCTS, PARTS & ACCESSORIES • PRODUCTS, PARTS & ACCESSORIES

## HIGH QUALITY LIFTING/ROLLING PRODUCTS

- ✓ VB MODELS: WLL FROM 22T TO 138T
- ✓ HCLW MODELS: WLL FROM 35T TO 150T
- ✓ LARGER SIZES AVAILABLE ON REQUEST



310-448-5444  
sales@awrrinc.com



310-522-9698  
sales@watermansupply.com

associatedwirerope.com





# Technology to Tackle the Toughest Repairs



**GARROD**  
HYDRAULICS, INC.

- Critical boom extension cylinders
- In-house chrome plating capabilities
- Cylinder repairs to crane manufacturer specs using OEM parts

Trusted by Crane Owners and Manufacturers since 1978.



**TADANO**

**LIEBHERR**



**Manitowoc**  
Crane Care™



**Montanhydraulik**

Garrod Hydraulics, Inc  
1050 Locust Point Road  
York, PA 17406  
866-4-GARROD  
brian@garrod.com  
garrod.com

**tele radio®**  
wireless solutions



**tele-radio.com**



Worldwide Support



866 629 0780



usa@teleradio.com



Approved



# SERVICE | PARTS | REPAIR | RESTORE | REPOWER

## CRANE

- RT / AT / TM Cranes
- Boom Trucks
- Service Cranes / Carrydecks

## FORKLIFT

- Telescopic Reach Forklifts
- Material Handlers
- Container and Heavy Lift

## AERIAL EQUIPMENT

- JLG Service Provider (GSSP)
- Genie Service Provider
- Utility Vehicles

## DRILL & FOUNDATION EQUIPMENT



**WHECO.COM**

1-800-937-4772



**GN ROPE FITTINGS**

Grofsmederij Nieuwkoop B.V. - the Netherlands

**HEAVY FORGINGS**



*Leading Manufacturer of  
Products & Accessories for:*

- **Heavy Lifting & Rigging**
- **Mooring Systems**
- **Anchor Handling**



**Shackles**

**Thimbles**

**Tri-Plates**

**Links**

**Hooks**



Ph: 310.448.5444  
sales@awrrinc.com

[www.associatedwirerope.com](http://www.associatedwirerope.com)

Ph: 310.522.9698  
sales@watermansupply.com





**SPECIALIZING IN THE SALE AND RENTAL OF  
HEAVY TIMBER AND LAMINATED MATS**

*SERVING THE GULF COAST FOR OVER 30 YEARS*



**1 (800) 671 - 0694**

[WWW.AMERICANMATANDTIMBER.COM](http://WWW.AMERICANMATANDTIMBER.COM)

*New*  
**BOB'S RIGGING & CRANE  
HANDBOOKS & REFERENCE CARDS**

**BOB'S OVERHEAD CRANE & RIGGING HANDBOOK**  
FOR INDUSTRIAL OPERATIONS  
THIRD EDITION

**NEW 9TH EDITION**

- TRAINING - RIGGING & CRANES
- RIGGING & CRANE SAFETY RULES
- RIGGING TRAINING PROGRAM EXAMPLE
- HORIZONTALLY MOVING LOADS
- WIRE ROPE TABLES
- WORKING LOAD LIMITS - SLINGS & HARDWARE
- ASME SAFETY STANDARDS
- OSHA REGULATIONS

**BOB'S INDUSTRIAL PUBLICATIONS, LLC**

Bob's Industrial Publications, LLC.  
Tel: 248-994-4006  
e-mail: [info@bobsindustrialpublications.com](mailto:info@bobsindustrialpublications.com)

[www.bobsindustrialpublications.com](http://www.bobsindustrialpublications.com)

**DON PELLOW**  
Engineering Consultant



**QUICK-LOCK™  
SERIES**

HOOK &  
SHAFT STYLES  
AVAILABLE  
MANUAL &  
HYDRAULIC  
AVAILABLE

**OSHA  
Compliant**

**Portable Professional Rigging Boom System**

For Forklifts & Tele-Handlers

**Interchangeable: Any Brand. Any Size.  
Systems In Stock Fitting 2,000lb - 40,000lb**

**Your Fork Truck + Our Boom = 5 Minute Installation**

Demonstration Video And Other Available Products At

[www.RigReady.com](http://www.RigReady.com)

1-866-829-0344



**BUY YOUR PADS**  
**From the Source That**  
**OEM's Trust**



**[WWW.SAUBERMFG.COM](http://WWW.SAUBERMFG.COM)**  
**(800) 323-9147**



# RITTER

FOREST PRODUCTS

PROVIDING THE  
**FOUNDATION**  
FOR YOUR SUCCESS

**CRANE • LAMINATED • DRAGLINE MATS**

Beaumont, Texas  
1.800.426.9570

Houston, Texas  
1.866.673.4800

Sorrento, Louisiana  
1.877.812.6909

Sulphur, Louisiana  
1.888.333.1925

Corpus Christi, Texas  
1.888.596.6391

**RITTERFOREST.COM**

## Used Cranes

### Demag CC 2400-1

Capacity 440 USt  
Main boom SSL/LSL (S1) 374 ft  
Upper hours 2,262 h  
Counterweight 220.5 USt  
Year 2017



### Demag AC 250-1

Capacity 275.5 USt  
Main boom 47.5 - 262.4 ft  
Boom extension 32.8 - 65.6 ft  
Upper hours 5,422 h  
Counterweight 106.4 USt  
Year 2011



**+1 203 451-3168**

daniel.melnyk@tadano.com

**DEMAG**  
TADANO GROUP

© Tadano Demag GmbH 2019. Demag is a trademark of Tadano Demag GmbH.

## COASTLINE

Equipment  
Crane Division

**562.273.7013**

sales@coastlinecd.com

www.coastlinecd.com | HQ: Long Beach, CA

**SALES | RENTAL | PARTS & SERVICE**

"RENTAL PURCHASE & LEASING OPTIONS AVAILABLE"

MANTIS

Manitex

TADANO

SKYJACK

SHUTTLELIFT

ELLIOTT

PALFINGER

ao72xv



2016 TADANO GR550XL 55 TON  
#5188 \$375,000 Project Rates Avail

bb00vb



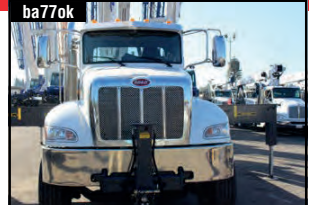
2020 ELLIOTT L60R 60 FT Reach  
Stk#87530 M43R H70R Available

az500q



2020 MANITEX 40124SHL 40 TON  
#85974 Only 3 Units Available - CALL

ba77ok



2020 MANITEX 22101S 22 TON  
#86989 - Swing Cab Model - CALL

an03zs



2016 TADANO GR750XL 75 Ton  
#43667 \$460,000 RENT SALE RPO

al21ve



2016 TADANO GR1000XL 100 Ton  
#44711 - \$575,000 Sale Rent RPO

ar25cg



2018 MANITEX 30100C 30 Ton  
#72562 - \$245,000 Sale Rent RPO

aw26ii



2019 MANITEX 26101C 26 Ton  
Stk#79342 \$242,00 Sale Rent RPO

az61bt



2019 TADANO GR1600XL 160 TON  
#83443 SALE RENT RPO - Call Today

ay67dv



2019 MANITEX TM2085T# 79337  
20 ton Capacity CALL FOR PRICE

al12ca



2014 SHUTTLELIFT CD3339 9 Ton  
#41162 \$105,000 SALE RENT RPO

ba26fi



2013 SKYJACK ZB20044 #37855  
\$90,000 20K Capacity 40FT Reach



# H&E EQUIPMENT SERVICES

*YOUR FULL-SERVICE CRANE DEALER*



**RENTALS / SALES / PARTS / SERVICE**

With over 50 years in the crane business, H&E is the largest Manitowoc and Grove crane dealer in the world. As industry leaders, we provide outstanding new and used equipment sales, general crane service, and parts replacement. In addition, we have rebuilt hundreds of cranes from various manufacturers. With remanufacturing centers conveniently located throughout the United States, our state-of-the-art repair facilities are staffed with factory-trained and certified service professionals.

**EnCORE**  
Rebuild. Repair. Remanufacture. Exchange.

**Manitowoc**  
Crane Care

- > Largest Grove and Manitowoc dealer
- > Crane Sales and Product Support Experts
- > Factory-Authorized Remanufacturing / Structural Repair
- > Factory-Authorized Component Rebuilds
- > Tier 4 Engine Repowers
- > Factory-Trained Technicians
- > In-Shop and Mobile Service
- > Largest New Inventory and Rental Fleet
- > New and Used Manitowoc Parts
- > Comprehensive New and Used Parts Inventory
- > 34 crane locations, 8 remanufacturing centers

Give us a call today!

**877-HE-CRANE**

**HE-EQUIPMENT.COM**

**GROVE**  
by Manitowoc

**NATIONAL CRANE**  
by Manitowoc

**Manitowoc**

**Manitex**

**MARINE**  
**TRAVELIFT**

**EFFER**



+31 30 774 0004 [www.re-move.com](http://www.re-move.com)

**re-move**

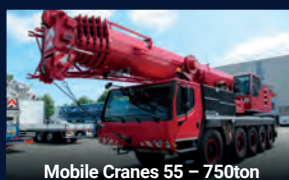
- ↑ Leasing
- ↑ Bare Rental
- ↑ Sale & Lease Back

#### OUR WORLDWIDE FLEET:

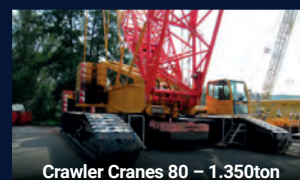
- Mobile Cranes 55 – 750ton
- Crawler Cranes 80 – 1.350ton
- Rough Terrain Cranes 55 – 100ton
- Mobile Tower Cranes 4 – 6 axles
- Heavy Transport Equipment

GLOBAL CAPACITY PROVIDER FOR  
HEAVY LIFT AND TRANSPORT EQUIPMENT

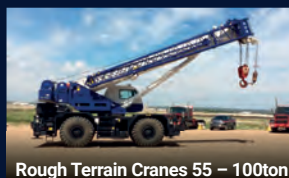
**CRANES 4 CRANES**



Mobile Cranes 55 – 750ton



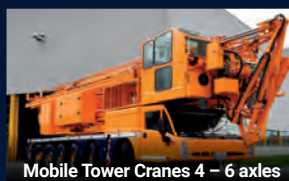
Crawler Cranes 80 – 1.350ton



Rough Terrain Cranes 55 – 100ton

**CRANES AND  
EQUIPMENT  
FOR SALE**

CHECK OUR WEBSITE  
FOR LATEST STOCK



Mobile Tower Cranes 4 – 6 axles



Heavy Transport Equipment

**WWW.CRANES4CRANES.COM**

**When Reliability is a Requirement  
Choose the Right Crane Rental**

Need a LIFT?  
**CALL US TODAY FOR A QUOTE**  
**718-784-1776**



#### **CRANES AVAILABLE FOR RENT NATIONWIDE**

##### **BRAND NEW!**

Liebherr LTM 1450 Truck Crane  
Mantis GTC 1200 Hydraulic Crawler

##### **Crawler Cranes**

Liebherr LR 1300 SX  
Liebherr LR 1400/2  
**Hydraulic Crawler Cranes**  
Liebherr LTR 1220  
Mantis GTC 1200  
Liebherr LTR 1100

##### **Hydraulic Truck Cranes**

Liebherr LTM 1500-8.1  
Liebherr LTM 1450-8.1  
Liebherr LTM 1350-6.1  
Liebherr LTM 1300-6.2  
Liebherr LTM 1250-5.1

**CRANES**  
INC.  
(718) 784-1776

Visit us Online...  
**www.CranesInc.com**



## GLOBAL SALES &amp; RENTALS

Houston, TX 77024, USA  
Large fleet in stock  
Phone: +1 (713) 975-7702  
e-mail: info@LSMcrane.com



LIEBHERR A.T. CRANES 120-900T



(50+) TADANO RT CRANES IN FLEET



LIEBHERR LR1100 &amp; 1220, 120/240T

## ALL TERRAIN

**LIEBHERR LTM1750-9.1**, 900 TON, '20, 171' BOOM,  
299' LUFFER RENT/RENT TO OWN..... **CALL**  
**LIEBHERR LTM1500-8.1**, 600 TON, '18&'20, 164'3'279  
BOOM, 299' LUFFER RENT/RENT TO OWN..... **CALL**  
**LIEBHERR LTM1250-5.1**, 300 TON, '17-'20, 197'  
BOOM, 69' JIB, RENT/RENT TO OW..... **CALL**  
**LIEBHERR LTM1160-5.2**, 190 TON, '19-'20, 203'  
BOOM, 62' JIB, RENT/RENT TO OW..... **CALL**  
**LIEBHERR LTM1130-5.1**, 155 TON, '19-'20, 197'  
BOOM, 62' JIB, RENT/RENT TO OWN..... **CALL**  
**LIEBHERR LTM1100-5.1**, 120 TON, 171' BOOM,  
62' JIB, RENT/RENT TO OWN..... **CALL**

## ROUGH TERRAIN

**TADANO GR1600XL**, 160 TON, '16-'20, 200' BOOM,  
59' JIB, SEVERAL IN OUR FLEET..... **CALL**  
**TADANO GR1200XL**, 120 TON, '18-'20, 184' BOOM,  
58' JIB, SEVERAL IN OUR FLEET..... **CALL**  
**TADANO GR1000XL**, 100 TON, '14-'20 154' BOOM,  
58' JIB, SEVERAL IN OUR FLEET..... **CALL**  
**TADANO GR750XL**, 75 TON, '14-'18, 141' BOOM,  
58' JIB..... **CALL**

## CRAWLER CRANES

**DEMAG CC3800**, 715 TON, 315' BOOM,  
275' LUFF, S.LIFT..... **CALL**  
**LIEBHERR LTR1220**, 240 TON, 197' TELE-BOOM  
72' JIB, RENT/RENT TO OWN..... **CALL**  
**LIEBHERR LTR1100**, 110 TON, 171' TELEBOOM,  
62' JIB RENT/RENT TO OWN..... **CALL**

**OVER 100 UNITS IN FLEET**  
**CALL FOR ALL YOUR CRANE NEEDS!!**

[www.LSMcrane.com](http://www.LSMcrane.com)

# Brute Lift®

## Heavy Lifting Equipment



### NEW HEAVY CHASSIS LINEUP

#### BRUTE LIFT BT160 - BT180 - BT200

Lifting capacities  
160,000 lbs. - 180,000 lbs.- 200,000 lbs.

Please do not hesitate to contact us with any custom requirements  
Email: [sales@hmslift.ca](mailto:sales@hmslift.ca) Phone: 1.877.506.7770

[www.hmslift.ca](http://www.hmslift.ca)

## INTERNATIONAL SALES & BARE RENTAL SOLUTIONS

## ALL TERRAIN CRANES

1x	80 t	Grove GMK 4080-1	2013
1x	130 t	Liebherr LTM 1130-5.1	2015/2019
1x	130 t	Liebherr LTM 1130-5.1	NEW!
1x	170 t	Grove GMK 5170-1	2016
1x	200 t	Liebherr LTM 1200-5.1	2016
1x	220 t	Demag AC 220-5	2019
1x	220 t	Tadano ATF 220G-5	2012/2016
1x	220 t	Liebherr LTM 1220-5.2	2016
1x	250 t	Demag AC 250-5	2019
1x	250 t	Grove GMK 5250L	2016/2017
1x	250 t	Liebherr LTM 1250-5.1	NEW!
1x	250 t	Liebherr LTM 1250-5.1	2017
1x	300 t	Grove GMK 6300L	2016
1x	500 t	Liebherr LTM 1500-8.1 + 84m	2010/2014
1x	500 t	Liebherr LTM 1500-8.1	2018
1x	750 t	Liebherr LTM 1750-9.1	NEW!

## LATTICE BOOM MOBILE CRANES

1x	750 t	Liebherr LG 1750 + SX BOOM	NEW!
----	-------	----------------------------	------

## CRAWLER CRANES

1x	250 t	Kobelco CKE 2500-2 + LUFFER	2008
1x	400 t	Demag CC 2400 SL	2009
1x	650 t	Demag CC 3800 SL + BOOM BOOSTER NEW!	
1x	650 t	Demag CC 3800 SL	2015
1x	750 t	Liebherr LR 1750	2010

## CRAWLER CRANE WITH TELESCOPIC BOOM

1x	100 t	Liebherr LTR 1100	2016
1x	100 t	Liebherr LTR 1100	NEW!
1x	200 t	Liebherr LTR 1220	2016

## ROUGH TERRAIN CRANES

1x	40 t	Grove RT 540E CE	2011
1x	75 t	Tadano GR 750XL-3	2015
1x	80 t	Terex RT 780	2016
1x	80 t	Grove RT 880E	2008
2x	100 t	Tadano GR 1000XL-3	2015/2017
1x	120 t	Tadano GR 1200XL-3	2018
1x	160 t	Tadano GR 1600XL-3	2017



Established in 1946  
Member of the ProDelta group

[www.hovago.com](http://www.hovago.com)

**HOVAGO**  
Your global cranes partner

Toermalijnring 2200  
3316 LC Dordrecht  
The Netherlands  
[info@hovago.com](mailto:info@hovago.com)  
+31(0)10 892 04 75





Honolulu, Las Vegas, San Francisco & Guam

## Link-Belt Crane Dealer for Hawaii & the Pacific Islands

*Coming to Las Vegas for Con-expo?*

We will be holding Certified Crane Operator Practical Exams at our Brand New Las Vegas Facility.....

Email us: [doc.b@docbaileycranes.com](mailto:doc.b@docbaileycranes.com)  
to schedule your exam.....

**Link-Belt**  
CRANES

888-362-2245

[www.888docbailey.com](http://www.888docbailey.com)

### TRANSPORT & HEAVY HAUL

## ACT & DEALER LOCATOR

**OPPORTUNITY KNOCKS  
WITH OUR NEW,  
IMPROVED DEALER  
LOCATOR PROGRAM**

Participate with your  
manufacturers by  
purchasing a listing  
on their page.



**VISIT OUR NEW WEBSITE:  
[WWW.AMERICANCRANESANDTRANSPORT.COM](http://WWW.AMERICANCRANESANDTRANSPORT.COM)**

- Your Dealer Contact Information included on OEM Specific Advertisements within ACT.
- ACT's Dealer Locator web portal is prominently displayed on [khl.com/act](http://khl.com/act) and features clickable links to each OEM and to dealer web pages.
- Monthly e-cast of your dealer contact information to a global audience of buyers and/or rental companies.
- Full inclusion of all information in ACT's tablet edition.

For more information or to participate in this cost-effective Dealer Locator Program contact:

Bev O'Dell,  
Phone: 816-886-1858 E-mail: [bev.odell@khl.com](mailto:bev.odell@khl.com)



**BUCKINGHAM**  
STRUCTURAL MOVING EQUIPMENT

**(610) 488-8969**

**SALES & RENTALS**

[www.BuckinghamEquipment.com](http://www.BuckinghamEquipment.com)

*Radio Remote  
Control System!*

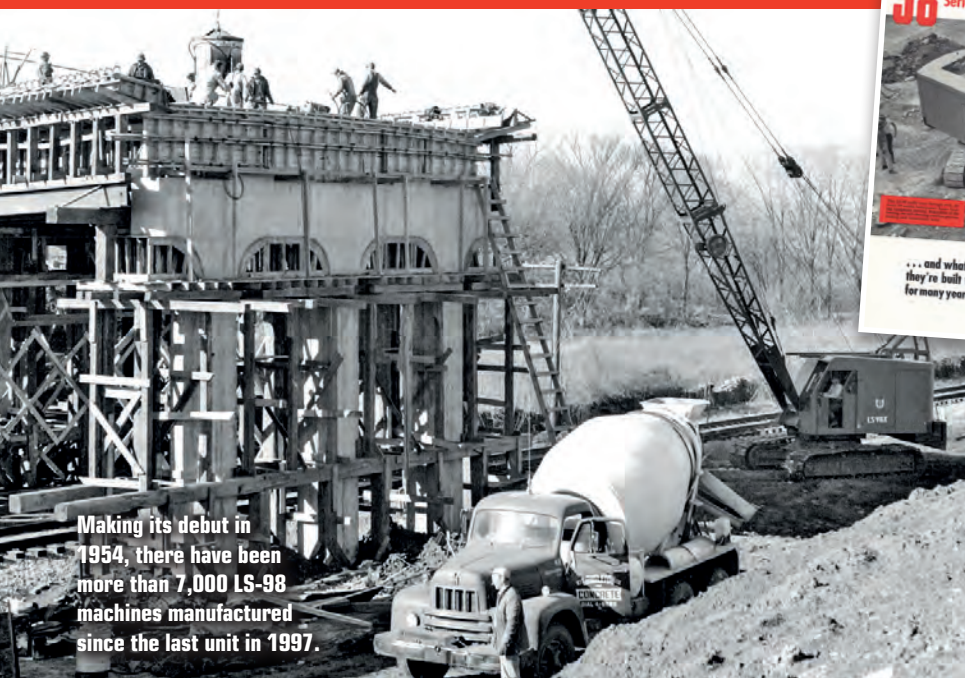
#### **Buckingham Power Units**

Engineered for maximum safety and efficiency. Proportional Hydrostatic drive with complete Radio Remote Control of Jacking, Steering and Air Braking Systems. Various models customized to meet your needs, with Diesel Engines from 24 to 173hp, and multiple Jacking and Steering ports.

#### **Buckingham Dolly**

Power Drive units are designed to move up to 350 tons per Dolly. Differential lock, Positioning, Power Steering or Caster Steering. Heavy-Duty multi-position tongue for towing and steering applications. 45-Ton capacity. Also available as Coaster units without driving capabilities.





Making its debut in 1954, there have been more than 7,000 LS-98 machines manufactured since the last unit in 1997.

The 25-ton capacity Link-Belt LS-98 crawler crane was one of the most revered cranes in American construction equipment.

# A true classic

It's probably not off the mark to suggest that any crane company operating in the United States between the late 1950s and the late 1990s had a Link-Belt LS-98 crawler in its fleet. Some companies had dozens of these cranes. A wire rope crawler and excavator, the LS-98 was produced for 43 years. It was a beloved machine by many an operator.

Making its debut in 1954, there have been more than 7,000 LS-98 machines manufactured until the last unit was

produced in 1997. "The rule in Florida was you couldn't lower the boom on a 98 to less than 40 degrees for fear of hitting another 98," Link-Belt said.

## Prominent and versatile

Sold at a wholesale price of \$26,000 in 1958, the machine featured three different attachments including a lift crane, dragline and shovel attachment. With a capacity of 25-27.5 tons, this tried-and-true machine had an angle boom length of 100 feet and tip height of 104 feet. A heavy hitter, the LS-98 clocked in at a lifting crane weight of 60,425 pounds, a dragline of 61,160 pounds and clamshell or magnet weight of 60,425 pounds.

Typical jobs for this machine utilized its

**In 1958, the LS-98 was sold at a wholesale price of \$26,000. The units featured angled 100-foot booms with a 104-foot tip height.**

"The rule in Florida was you couldn't lower the boom on a 98 to less than 40 degrees for fear of hitting another 98."



**A wire rope crawler and excavator, the LS-98 was produced for 43 years.**

lift crane, dragline, backhoe, shovel, scrap and pedestal capabilities. The crawler was also capable of traveling at speeds of 0.79 to 1.78 miles per hour. The LS range featured three versions: the original LS-98, the LS-98A and the LS-98D. LS-98 engines also ranged in manufacturers from International Harvester, Cummins, Caterpillar, General Motors and Waukesha. The LS-98 was assembled across North America, including facilities in Cedar Rapids, IA, Bowling Green, KY, Milano, Italy, Ontario, Canada and Querétaro, Mexico.

Link-Belt Cranes, headquartered in Lexington, KY, is a leader in the design and manufacture of telescopic boom and lattice boom cranes.

Complete crane specifications are available at [www.linkbelt.com](http://www.linkbelt.com).







# INTERNATIONAL CRANES & TRANSPORT MIDDLE EAST CONFERENCE

Conference and networking event for  
the Middle East's crane and specialized  
transport industry

## SAVE THE DATE 7 OCTOBER 2020

WALDORF ASTORIA DUBAI PALM  
JUMEIRAH, DUBAI, UAE



# LEARN NETWORK DEBATE

**Key topics under discussion  
in 2020 will be**

- Improving health and safety in lifting and transport operations;
- Increasing the efficiency of fleet management practices;
- Enhancing the productivity of equipment on site;
- Highlighting best practice advice and case studies from around the world.

SILVER SPONSORS



SUPPORTING SPONSORS



SUPPORTING ORGANISATIONS



CREATED AND ORGANISED BY



FOR MORE INFORMATION AND TO BOOK YOUR PLACE VISIT

[www.khl-catme.com](http://www.khl-catme.com)



**Discover Next Level Job Site Intelligence.**

**Visit Us at Festival Booth 7804**

# **a1s Software**

**Your Data, Your Way**

## **The Leader in 3D Lift Planning**

*Now bringing you more business tools  
for the unique needs of the crane industry.*

**iCraneTrax**



**Plug & Play Telematics**



**3D Lift Plan**



**Sales & CRM Tools**



**GPS, Telematics & Maintenance Info**



**Dispatch & Documentation**



**Detailed Reports**



**GPS Tracking**



**Maintenance Scheduling**



**Faults/Alerts Notifications**



**Usage Data**



**Realistic 3D, Animation,  
Import Google Earth or CAD**



**Outrigger & Crawler Loads**



**Detailed Rigging Plans**



**Largest Database of Cranes**

[a1software.com](http://a1software.com) | 904-430-0355

