SUMMER 2024

LIFT LINE

YOUR SOURCE FOR NEW AND USED LIFT EQUIPMENT

ALL Family of Companies 60 YEARS 1964-2024

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Cover: ALL Crane Rental of Columbus, Ohio, a member of the ALL Family of Companies, performs the heavy lifting at this industrial plant. Featured, our Manitowoc 21000 with Maxer Counterweight (1000 USt).

Regional Sales Managers

US Northeast:
Shaune Rados
(216) 986-5190
Shaune.Rados@allcrane.com

US North & Northwest:
Joe Ruddell
(414) 831-6114
Joe.Ruddell@allcrane.com

US South:
Jordan Nessmith
(770) 285-3679
Jordan.Nessmith@allcrane.com

About *Lift Line*
Lift Line is your guide to used equipment from an industry leader and North America's largest privately held crane and lift equipment rental and sales enterprise — the ALL Family of Companies.

ALL Family of Companies

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Service Never Stops

Service is the name of the game. Since Jeffers Crane Service, Inc. was first established in 1948, and since joining the ALL Family of Companies in 1995, our branches have proudly served Western Ohio and Michigan.

Service, of course, means many things. Here at ALL, it begins with our commitment to keeping our equipment well-maintained. We're proud of our equipment. Leadership invests in the newest cranes, so we always have the most modern fleet available. So of course we want to take care of it.

As performing service has evolved from wrenches to laptops, we have managed to stay ahead of the technology curve with consistent investment in our team. ALL sees to it that our entire team is trained on the latest technology as soon as it comes out. We're fortunate to have multi-generation leadership that believes service is key to being on the cutting edge.

We engage in on-site training, remote brush-up sessions, and factory-endorsed courses on the latest equipment. It adds up to a well-educated, highly skilled staff that can keep diverse machines ready for rental.

Service also extends to the selection and experience we offer to customers. We have well-stocked yards under the Jeffers name, and by drawing from other ALL branches, we're able to offer specialized equipment and higher capacities that otherwise wouldn't be available in our market. It helps make our customers more competitive in ever-challenging business sectors.

I'm very proud to be part of the Jeffers team. For twenty years, I've seen the commitment to professionalism, integrity, and getting every job done right. It never ceases to amaze me how this crew comes through for our customers, and each other, time and again.

This can-do attitude extends to every branch. We all view every customer as "our" customer, no matter where we might be located in the U.S. Serving customers is a goal we all share.

Service never stops. It's what we do here at ALL.

Marty Bowman

Martin L. Bowman
General Manager
Jeffers Crane Service, Inc.

Say it in six

TAKE ME OUT TO THE BALLGAME.

Within minutes of the final out of the 2023 home season, work began transforming Progressive Field. ALL was there. A varied package of cranes worked most of the off-season, including massive ATs who got to “run the field.” Worry not, the integrity of the field was protected by the "hickory highway" seen here.

Photo courtesy of droneohio.com

SHOP **ROUGH-TERRAIN CRANES** *from 15-150 USt*

1

Broderson RT-300 – S/N 49143300, 2013, 15 USt, Cummins QSB4.5 T4i (5,187 Hours), 60' Main Boom, 20 Jib, Engine Side Covers, 17.5 x 25 Tires, 20 ply, 4 Wheel Steer, 4WD, Pintle Hook in Front and Rear, Wind Wiper- Top, A/C, Lighting Kit, RCL Greer, Drum Hoist Rotation Indicators, Block and Ball, New Paint. *Located in Hammond, IN.* Unit #10934 **$177,000**

2

Grove RT9150E - S/N 230884, 2010, 150 USt, Cummins QSC8.3L (19,006 Hours), 197' Main Boom, 36'–59' Hydraulic Bifold Jib, Aux. Hoist, Auxiliary Light Package, Wind Speed Indicator, Heavy Lift Package, Block and Ball. *Located in Indianapolis, IN.* Unit #10406 **$483,000**

3

Link-Belt RTC-8065 - S/N J9J6-8882, 2006, 65 USt, CAT 3126B (12,807 Hours), 115' Main Boom, 35'–58' Bifold Jib, Aux. Hoist, 26.5x25-26PR Tires, Joystick Controls, A/C, RCL Bar Graph, Block and Ball. *Located in Mobile, AL.* Unit #DL1049MLW **$107,000**

4

Grove RT650e – S/N 225392, 2006, 50 USt, Cummins 6BT5.9 Diesel (12,292 Hours), 105' Main Boom, 29'–51' Tele-Jib, 23.5X25 Tires, Aux. Hoist, Value Package, A/C, Full Aluminum Decking, Block and Ball. *Located in Toledo, OH.* Unit #9548 **$85,000**

5

Link-Belt RTC-8080 - S/N S4K3-3435, 2013, 80 USt, Cummins QSB6.7 (8,233 Hours), 127' Main Boom, 10'–38'–64' Offset Jib, Aux Hoist, 19,200# Counterweight, RCL Bar Graph, A/C, Joystick Controls, Block and Ball. *Located in Hammond, IN.* Unit #10774 **$335,000**

6

Link-Belt RTC80100XL II - S/N J7K2-2784, 2012, 100 USt, Cummins QSL9 (15,379 Hours), 150' Main Boom, 31'–55' Offset Jib, Hyd. Outrigger Pin, Removal, Counterweight Removal System, Aux. Hoist, Joystick Controls, A/C, RCL Graph, Block and Ball. *Located in Fort Wayne, IN.* Unit #DL1154MLW **$439,000**

7

Grove RT9130e – S/N 228121, 2008, 130 USt, Cummins QSC8.3 (19,211 Hours), 160' Main Boom, 36'–59' Bifold Jib, Full Length Aluminum Decking, A/C, Pat Event Recorder, 33.25 X29-38 Bias Ply Tires, Block Heater, Aux. Hoist, Block and Ball. *Located in Indianapolis, IN.* Unit #10231 **$305,000**

8

Link-Belt RTC-8050 II - S/N J6J6-8866, 2006, 50 USt, Cummins B5.9 (15,658 Hours), 110' Main Boom, 28'–51' Offset 2 Stage Jib, Aux. Hoist, Independent Rear Steer, Joystick Controls, RCL Bar Graph, A/C, Block and Ball. *Located in Hammond, IN.* Unit #9527 **$78,500**

SHOP **TRUCK CRANES** *from 50-110 USt*

1

Grove TMS700E - S/N 233016, 2012, 60 USt, Cummins QSMII, Eaton Fuller Transmission, 9,468 Hours, 71,993 Miles, 110' Main Boom, 32'-56' Tele-Jib, Aux. Hoist, Outrigger Monitoring System, Engine Block Heater, Boom Lights, Aux. Light and Convenience Package, Heavylift Counterweight, Block and Ball. *Located in Madison, Wi.* Unit #10578 **$345,000**

2

Link-Belt HTC-8690 - S/N N3K3-3148, 2013, 90 Ton, Cummins ISX11.9, 14,247 Hours, 72,726 Miles, 140' Main Boom, 35'–58' Offset Jib, Aux. Hoist, Daytime Running Lights, Amber Strobe, Trailer Air & Electric, 39,500# Counterweight, 2 Speed Winches, Winch Rollers, RCL Light Bar, Upper and Lower A/C, Single Axis Controls, Upper Storage Box, Aux. Lifting Sheave, Boom Flood Lights, Boom Float Kit, Block and Headache Ball. *Located in Milwaukee, WI.* Unit #10583 **$495,000**

3

Terex T550-1 - S/N 120407, 2014, 50 USt, Cummins ISX Diesel, Allison Auto Transmission, 8,708 Hours, 56,572 Miles, 110' Main Boom, 33-57' Jib, Aux. Hoist, Remote Outriggers, A/C, Work Light Package, Aluminum Wheels, Block and Ball. *Located in Pittsburgh, PA.* Unit #10988 **$295,000**

4

Link-Belt HTC8660 II - S/N L8K3-3588, 2013, 60 USt, Upgraded EPA Cummins ISL9, 8,994 Hours, 87,328 Miles, 110' Main Boom, 28'–51' Bifold Jib, Aux. Hoist, Single Axis Controls, Carrier Box, Daytime Running Lights, Amber Strobe Light, Winch Rollers (2 Drums), Counterweight and Removal (15,000#), RCL Light Bar, A/C in Upper and Lower Cabs, Block and Ball. *Located in Tampa, FL.* Unit #10844 **$353,000**

5

Link Belt HTC8675 II - S/N P9K3-3251, 2013, 75 USt, Cummins ISX11.9, 15,848 Hours, 75,755 Miles, 127' Main Boom, 38'–64' Bifold Jib, Aux. Hoist, A/C in Upper and Lower Cabs, Daytime Running Lights, Amber Strobe Light, Boom Flood Lights, RCL, Bar, Trailer Air and Electric, Boom Float Kit, Block and Ball. *Located in Milwaukee, WI.* Unit #DL1173MLW **$396,000**

6

Grove TMS9000E - S/N 234862, 2014, 110 USt, Cummins ISX12 11,099 Hours 75,480 Miles, 142' Main Boom, 33'–56' Bifold Jib, Aux. Hoist, Aux. and Light Package, Trailing Boom Package, XL Counterweight Package, Outrigger Monitoring System, A/C, Block and Ball. *Located in Columbus, OH.* Unit #11010 **$605,000**

SHOP **TOWER CRANES**

1. Potain HDT80: S/N 602141 (2013) 6.6-USt, 148' jib with up to 30 deg. offset, (3) section galvanized telescoping mast allowing hook heights up to 106' (jib horizontal), elevator cab, SM/DM trolley & block for 2/4-part hoist reeving, hydraulic ballasting derrick, complete set of base concrete ballast, radio remote control with load-moment indicator (LMI), master controller with 114' cable, anemometer, transport kits, (1) set of manuals. *Located in Madison, WI.* Unit #DL1179MLW. **POR**

2. Terex/Peiner SK315 25143 (2005) 17.6-USt, 229' jib, (11) TS212 masts, (1) TSK212 mast, WB 66-80/4F (standard) hoist winch, 2 part trolley, maintenance davit, full set steel-encased concrete counterweights, power cord, A/C, (1) set of manuals. *Located in Durham, NC.* Unit #9009. **POR**

3. Terex/Peiner SK315 25159 (2005) 17.6-USt, 229' jib, (11) TS212 masts, (1) TSK212 mast, WB 66-80/4F (standard) hoist winch, 2 part trolley, maintenance davit, full set steel-encased concrete counterweights, power cord, A/C, (1) set of manuals. *Located in Durham, NC.* Unit #9241. **POR**

4. Terex/Peiner SK415 26163 (2007) 22-USt, 246' jib, (11) TS212 masts, (1) TSK212 mast, WB 66-100/4F (standard) hoist winch, 2 part trolley, maintenance davit, full set steel-encased concrete counterweights, power cord, A/C, (1) set of manuals. *Located in Chicago, IL.* Unit #9592. **POR**

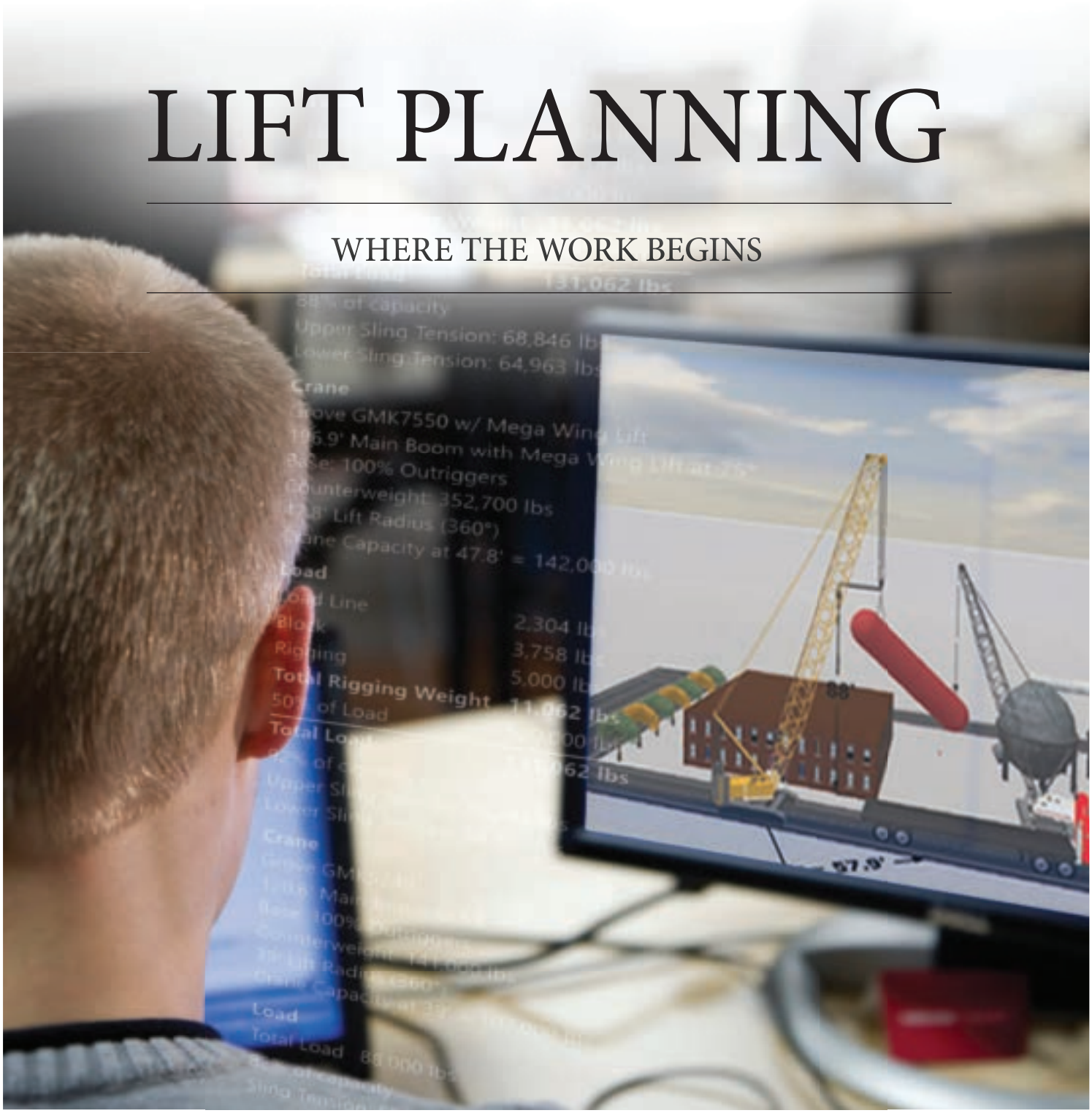
5. Potain MD485B 401264 (2006) 22-USt, 262' jib, (14) KRMT839A masts, standard 166 LBR50 hoist winch, 2 part (1C) trolley, full set steel-encased concrete counterweights, power cord, A/C, (1) set of manuals. *Located in Knoxville, TN.* Unit #9403. **POR**

6. Terex/Peiner SK575 27026 (2005) 35-USt, 262' jib, (11) TS213 masts, (1) TSK213 mast, WB 122-160/4F (standard) hoist winch, 4-part trolleys, maintenance davit, full set steel-encased concrete counterweights, power cord, A/C, (1) set of manuals. *Located in Pittsburgh, PA.* Unit #8886. **POR**

7. Potain Model MR 605B: S/N 405856 (2007) Luffing boom tower crane, 35-USt, 197' Jib, 215LBR hoist winch, 108VBR luffing winch, 2/4 part block, full ballast, power cord, (1) set of manuals. *Located in Cleveland, Ohio.* Unit #9813. **POR** *(Available as upper only or with sufficient mast for full freestanding hook height & optional base anchors.)*

LIFT PLANNING

WHERE THE WORK BEGINS



Two crane booms needed to perform their work through a mail-slot-like opening between northbound and southbound lanes of the Tri-State Tollway (I-294) over Roberts Road in Chicago. Much preliminary work went into assuring a successful series of lifts, consisting of site surveys, measurements, multiple checks and verifications, and formulation of both 2-D and 3-D lift plans.

Depending on complexity, before the first truckload ever arrives at a jobsite, the lift to be executed has often already been thoroughly mapped out, planned, and practiced to precision. It's a process called lift planning, and it's sometimes a necessary part of preparing for maneuvers in which the participants are measured in tons.

When planning a lift, you want a team that has experience using a wide variety of crane types, capacities, and makes. You want the best lift-planning technology available. And you want well-trained lift planners who are constantly honing their craft.

ALL Crane, of course, has more than 3,600 pieces of lift equipment in its fleet, access to lift planning technology such as 3D Lift Plan, LICCON, and AutoCAD, and ongoing lift plan training spearheaded by ALL project coordinator Chad Rados. This access to more equipment, improved technology, and ongoing training results in professional lift plans that do more than simply sketch out what needs to be done.

Telling a story

"The purpose is to tell a story," said Rados. "When we're sitting with a customer, we want them to see that we have a clear idea of their objectives so they can determine the best equipment and lift plan for their job. It gives customers peace of mind."

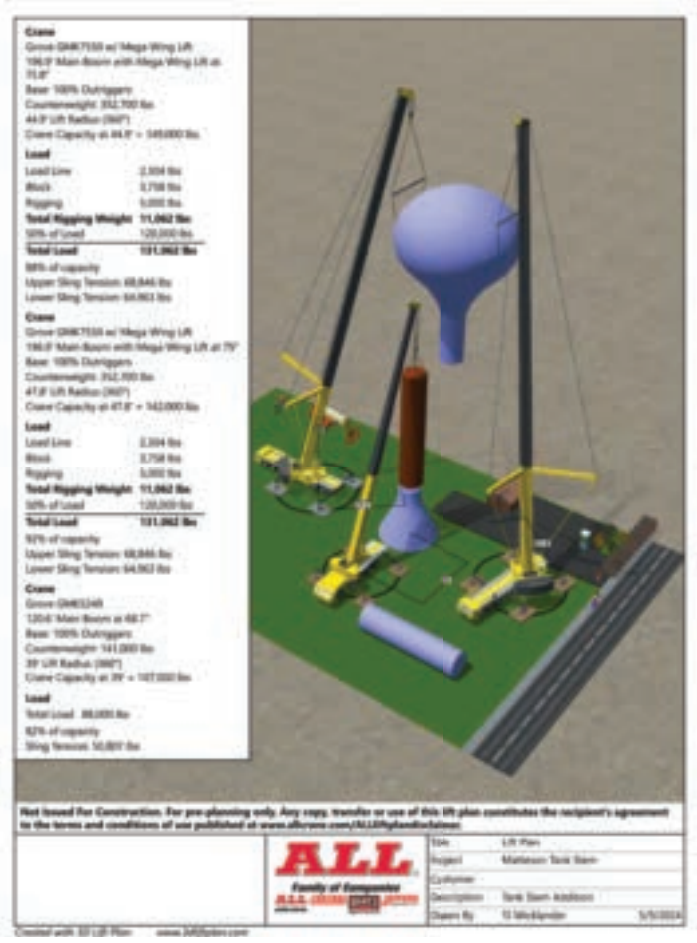
Most Tuesdays, Rados sends out a short video he has prepared covering a different aspect of lift planning. It goes to every salesman, branch manager, and general manager across ALL's national footprint. "I come up with a topic related to lift planning or a skill to focus on," said Rados. "Sometimes I select a specific tool within the software and demonstrate how it can be employed to enhance a lift plan."

For some lifts that may be novel or more complicated, lift planning provides a virtual reality space to try out different equipment and methods to determine the best course of action in the real world.

"There are standard things that will always be in the plan," said Rados. "Your crane selection, its positioning and orientation, the load being lifted, where it's being lifted, and where it's being set."

The user is also able to plug in information about the weight of the load, lift radius, boom head elevation, and more.

"Then you have data that will assist the customer in completing the lift safely. By drawing it, we know the lift can be executed," said Rados.



Real and virtual worlds

Lift plans all begin in the real world, then move into the virtual realm of lift planning software, and finally return to terra firma as planned lifts are executed on customer job sites.

Hard work goes into taking accurate field measurements of the job site, noting any obstructions or clearance issues. The information gathered is entered into the lift planning software to help create the virtual environment. When using 3D Lift Plan, the user can actually overlay a satellite image of the actual job site and plan the lift using a Google Earth picture of the real location. The user is also able to choose from a wide variety of cranes preloaded into 3D Lift Plan. "Every

continued on page 12

Erecting the tallest flagpole in North America would take an experienced team and lift planning. The ALL Family put together a thorough lift plan using their web based 3D lift-planning program with illustrations detailing every stage of the job. The plan included load charts, equipment dimensional information, wind ratings, lifting crane main boom and luffing jib capacities, along with crane ground bearing and hardwood crane mat pressure estimations.

Manitowoc, Link-Belt, Tadano, and Grove is in there," said Rados.

Liebherr has its own lift planning software, LICCON (Liebherr Computed Control). It not only allows for creation of lift plans, but because many newer Liebherr crane models have LICCON directly in the cab, the crane operator can "practice" the lift ahead of time using the controls of the actual crane he will be operating during the lift. "The operator is able to watch on screen as the virtual crane responds to his movements," said Rados. "It's an added layer of preparation before a lift."

Sometimes you need an engineer

Detailed as they are, all lift plans are clearly labeled as being for planning purposes only. However, some projects require a plan that's more official. In these instances, a licensed engineer needs to be involved – and ALL has two of them on staff. Sam Moyer, general manager of ALL Tower Crane, and John Stolarczyk, heavy lift engineer, who works out of Dawes Rigging & Crane Rental in Wisconsin. (You can read more about Sam and John in "A Day in the Life: P.E. Class" on page 24 of this issue of Lift Line.)

Stolarczyk is available to engineer heavy lifts for every ALL branch. He says the primary difference between his officially stamped plans and a typical lift plan is that he manually double-checks all calculations.

"We're fortunate to have any tool for the job that a customer might require," said Rados. "It all comes down to having the right people with the right knowledge base to make the lift happen." ALL

> *"By drawing it, we know the lift can be executed."*
>
> *– Chad Rados, ALL Project Coordinator*

At right, several of the dozens of lift plans that helped prove possible a deviation from an existing construction plan.

A major medical facility in Columbus, Ohio, was under construction, but construction of the core forms far outpaced construction of the floors, so much so that it would be months before the tower crane tie-backs could be installed.

This would be an expensive challenge.

The original plan had been for tower cranes onsite to dismantle the core forms but, without the tie-backs, the tower cranes couldn't achieve high enough hook heights to do the work. Waiting would require the cranes remain on site and on rent, wasting time and money. ALL proposed bringing in a couple all-terrain cranes.

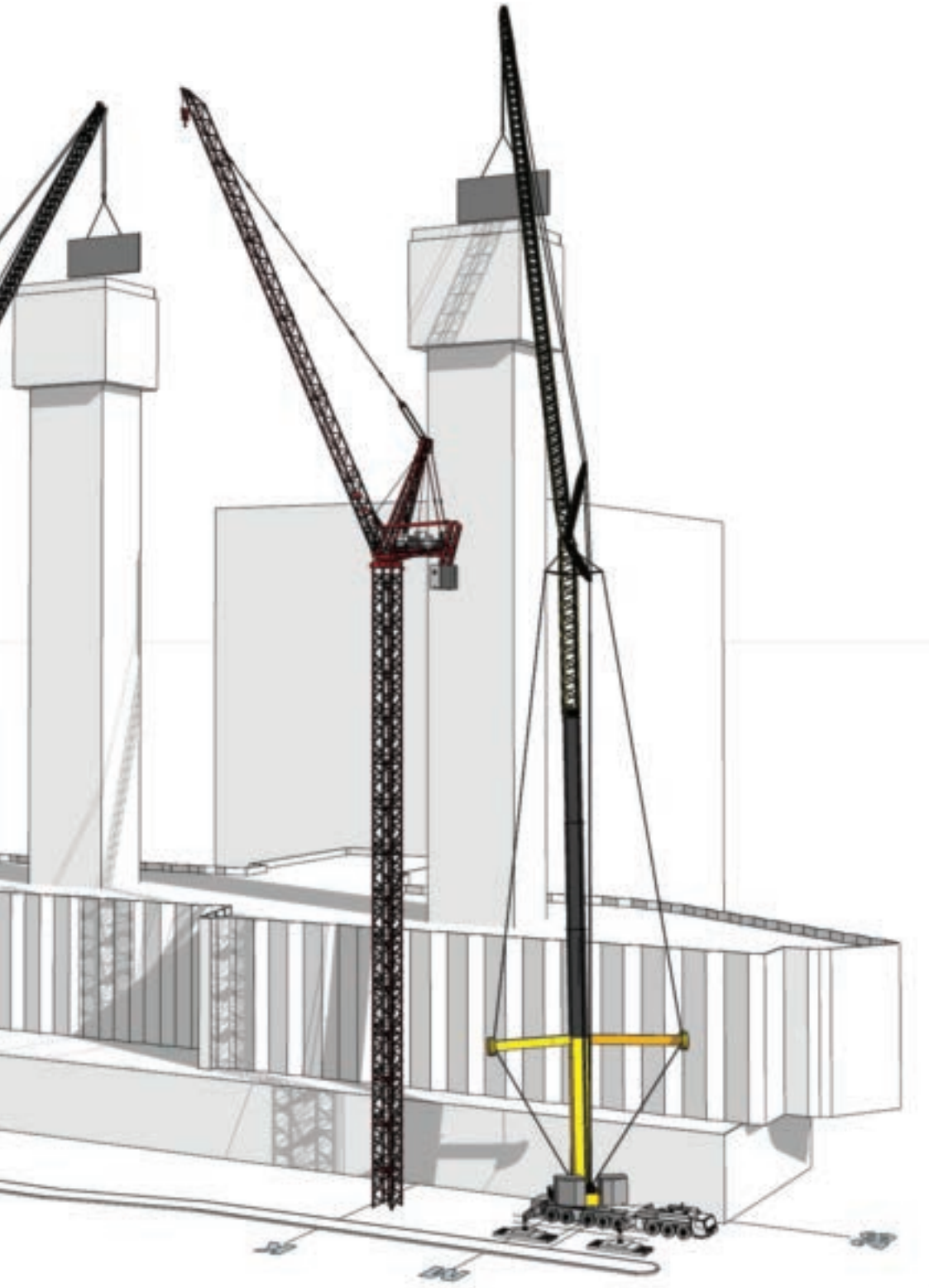
Besides height and weight, the site itself presented challenges for the ATs. Because the lower floors were already built, the only place the all-terrains could set up was outside the building footprint at a significant distance from the cores. Our customer had to sell the concept that it was possible, practical, safe, and cost effective to deviate from the original plan and remove the core forms with a mobile crane.

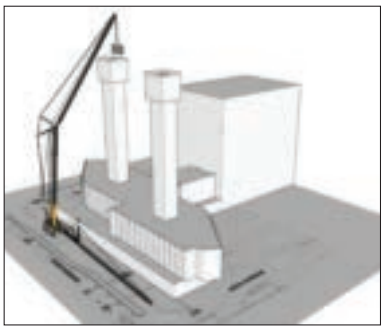
That's where lift planning came in.

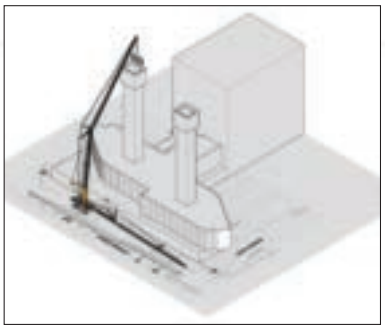
"There were a lot of drawings, because there were a lot of phases, explained Sam Moyer, general manager of ALL Tower Crane. "We wanted to convey that all aspects of the lifts had been considered and planned – from ground bearing pressure to clearance of the in-progress construction; to avoiding the tower cranes while assembling, scoping out and uprighting the mobile crane and making the picks themselves."

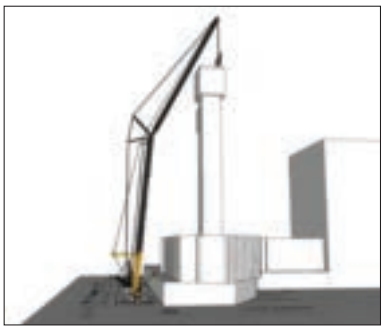
In the end, thanks to diligent planning and careful execution, the concept became reality and the core forms were dismantled early, saving the project significant cost.

An electric and natural gas utility constructing a major air quality control system needed as many as 20 cranes at one time. Few crane companies can meet that equipment request. But, more than cranes, ALL's lift planning and engineering know-how formulated a plan that was able to save the customer nearly $1 million in crane rental fees.









Mapping and simulating a project from every angle and accounting for every eventuality doesn't just make our team well-practiced on lift day, it helps determine the optimal crane package, creating value for our customers.

A team of cranes and lift planning was needed for power plant's duct retrofit. Prior to the project, the ALL Family put together a 3D lift plan that started with an overhead satellite image of the plant's footprint, over which the lift planning team layered computer-aided illustrations detailing each phase of the work to be done. The planning helped navigate the tight job space in the midst of buildings, chimneys, and silos.

SHOP **ALL-TERRAIN CRANES** *from 50-600 USt*

1

Grove GMK7550 - S/N 7450-8162, 2012, 550 USt, Mercedes Diesels, 10,650 Upper Hours, 9 Lower Hours, 43,830 KM, Mega Wing Lift, 197' Main Boom, 259' Luffing Jib, Heavy Duty Jib, Rigging Winch, A/C, Trailing Boom Float Kit, Boom Removal System, 20.5 R25 Tires, Aluminum Wheels, Fire Suppression System, Blocks and Ball, 3 Axle Boom Dolly. Rebuilt Lower Engine. *Located in Indianapolis, IN.* Unit #10604 **$1,470,000**

2

Liebherr LTC1045-3.1 - S/N 056459, 2012, 50 USt, Rebuilt Mercedes Diesel, 3,881 Hours, 52,920 Miles, 118' Main Boom, 25-43 Double Lattice Swing-away Jib, 445/95 R25, Aux. Hoist, 14,300lbs of Counterweight, Height Adjustable Crane Cab, Block and Ball. *Located in Fort Wayne, IN.* Unit #10632 **$365,000**

3

Liebherr LTM1250 6.1 - S/N 070980, 2013, 300 USt, Liebherr Diesels, 7,986 Upper Hours, 4,482 Lower Hours, 66,810 KM, ZF Trans, 236' Main Boom, 40' - 70' Swingaway Jib, (2) 23' Jib Inserts, Aux. Hoist, 214,500 lbs of Counterweight, Removable Main Boom, Removable Rear Outrigger Boxes, A/C, Blocks and Ball. 3 Axle Boom Dolly. *Located in Pittsburgh, PA.* Unit #10668 **$1,595,000**

4

Liebherr LTM 1200 5.1 - S/N 093397, Liebherr LTM1200 5.1 - S/N 093397, 2013, 240 USt, Liebherr Diesels, 11,756 Upper Hours, 5,007 Lower Hours, 50,828 KM, 236' Main Boom, 40'-72' Hydraulic Swingaway Jib, (2) Jib Inserts, Aux. Hoist, 20.5 R25 Tires, A/C in Upper and Lower Cabs, Working Floodlights, Liccon, Blocks and Ball, 3 Axle Boom Dolly. *Located in Toledo, OH* Unit #10691 **$1,200,000**

5

Terex EX5500 - S/N 35204, 2015, 140 USt, Scania Tier 4F, 6,600 Hours, 34,512 KM, 10x8x10 Drive, 196' Main Boom, 108' Jib, Aux. Hoist, 20.5R25 Tires, A/C. Block and Ball, 2 Axle Boom Dolly. *Located in Toledo, OH.* Unit #11082 **$667,000**

6

Liebherr LTM 1500 8.1 – S/N S/N 073348, 2011, 600 USt, Liebherr Tier 3 Diesels, 10,561 Upper Hours, 4,032 Lower Hours, 55,668 KM, 276 Main Boom, 298 Luffing Jib, Y-Guy, 2 Winches, 20.5 R 25 Tires, A/C, (8) Counterweight slabs, 363,770 lbs. Total Counterweight, Additional Fuel Tank, Telma Brake, Working Lights, Liccon, Blocks and Ball. *Located in Cleveland, OH.* Unit #10485 **$2,200,000**

7

Terex Challenger 3180 - S/N 12108, 2012, 65 USt, Mercedes Diesels, 10,560 Hours, 47,448 Miles, 164' Main Boom, 27-52' Double Folding Swingaway Jib, Aux. Hoist, Battery Disconnect Switch, Outrigger Load Indicator, A/C, Block And Ball. *Located in Chicago, IL.* Unit #10878 **$315,000**

8

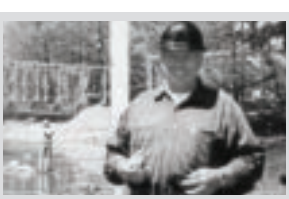
Liebherr LTM1130-5.1 - S/N 066456, 2013, 155 USt, Liebherr Diesels, 9,446 Upper Hours, 5,248 Lower Hours, 39,983 Miles, 197' Main Boom, 35.5-62' Swingaway Jib, (2) 23' Jib Inserts, Rooster Sheave, 20.5R 25 Tires, Telma Brake, A/C, Supporting Base Detection, Battery Charger, 92,600 LBS of Counterweight, Working Floodlights, Blocks and Ball, 2 Axle Boom Dolly. *Located in Nitro, WV.* Unit #10761 **$903,000**

9

Grove GMK6300L - S/N 6300-4076, 2013, 350 USt, Mercedes Diesels Tier 4i, Allison Transmission, 5,225 Upper Hours, 2,176 Lower Hours, 31,710 KM, 262' Main Boom, 70' Swing Away, 121' Jib w/ Inserts, Luff. Cyl, Aux. Hoist, 20.5R 25 Tires, Working Lights and Hoist Camera, Additional Spotlights on Rear Side of Carrier, Boom Float Kit, Boom Removal Kit, Hydraulic Disconnect for Outriggers, Drum Rotation Indicator, 360 Degree House Lock, Boom Head Mounted Aircraft Warning Light, Outrigger Length Control, Removable Outrigger Boxes, Tri axle Boom Dolly, Blocks and Ball, Reman. Telescope Cylinder, Reman. Lift Cylinder, New Carrier Cab, New Paint. *Located in Hammond, IN.* Unit #10846 **$1,553,000**

BIG TECH

HOW WE KEEP CRANES RUNNING BETTER, LONGER



Raymond “Torch” Pekarski was a memorable figure in ALL’s history. Torch was jack-of-all-trades and king of maintenance, with a well-earned reputation for being able to fix anything. He was critical to setting the trajectory for ALL in the early days, creating a long shadow with his experience and know-how.

Have you ever considered the longevity of cranes in ALL's fleet?

It's not a subject that is talked about much, as we're usually marveling at the newer machines the company is seemingly constantly acquiring. ALL, of course, is known for having the newest, largest, best-maintained fleet.

Best maintained … that's where crane longevity comes in. ALL not only acquires the latest and greatest in new cranes and new crane technology, the company also takes care of that equipment to give customers years – if not decades – of valuable use.

Conventional wisdom says by 16,000 hours of use, a crane has entered its golden years. Yet, ALL has cranes in its fleet with well over 20,000 hours that continue to perform at the peak of their powers. How is this possible?

"The mystery is really no mystery at all," said Larry Jeppe, procurement director for ALL. "The answer is: service and maintenance."

"Be good to the machines, and they will be good to you and your customers.

– Larry Jeppe, ALL Procurement Director

Service is a differentiator

ALL's commitment to industry-leading service and maintenance of the equipment in its fleet is well-known. The credo is "be good to the machines, and they will be good to you and your customers." At ALL, that means each crane in the fleet should always be rent-ready.

"When a crane comes back to the yard after rental, it gets an inbound inspection," said Jeppe. "Everything that needs fixed or adjusted is handled at that time. Until it's in rent-ready shape, we won't return it to the field."

We take pride in our level of service. We think we do it better than anybody else. From strictly adhering to factory-recommended maintenance schedules to quickly resolving any issues in the field, we know time is money for our customers. Safety is ALL's goal, and part of that means having a well-maintained fleet.

To achieve uniform service levels, ALL uses asset management software to track its entire fleet across all of its branches nationwide. This tracks all maintenance performed on a piece of equipment so the service departments at every branch are always on the same page. Maintenance schedules for each machine are programmed into the system, with alerts so technicians know when it is time to perform oil changes and other routine maintenance.

Business intelligence

Another way ALL is using technology to constantly improve its service and maintenance is a computer dashboard that's been a project of John Ashworth, director of business optimization for the ALL Family of Companies.

Different from the asset management software, this specially designed dashboard is a portal that brings together all of the company's service and maintenance intelligence

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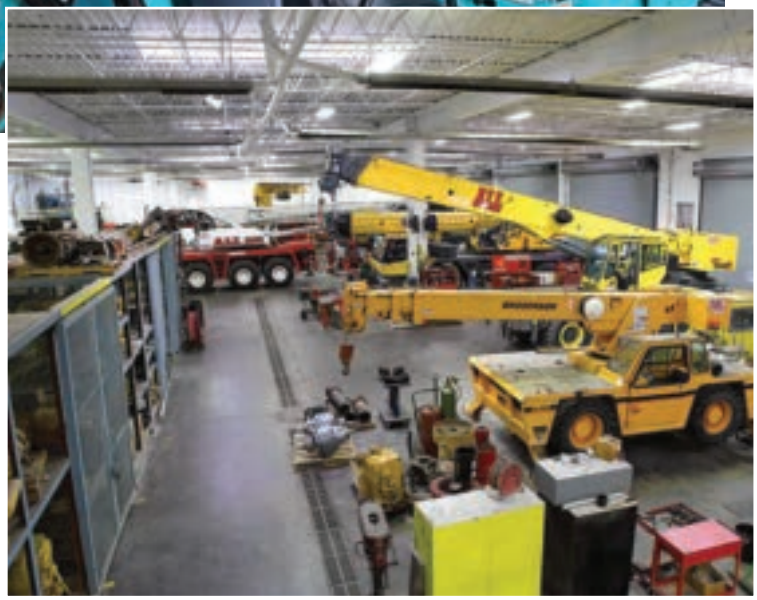
Irv Gordon, according to the Guinness Book of Records, holds the world record for the most miles driven in a single car, clocking more than 3.2 million miles. Having passed in 2018, he is survived by his Volvo P1800. He urged all owners to read the handbook and do the basics properly.

into one place. “It’s a single access point where our people can go to view the status of every piece of equipment in the fleet,” said Ashworth. So, while information from the asset management software is part of the dashboard, this new project actually contains a lot more information (such as results of the oil testing covered in our sidebar story).

“The dashboard aids our service teams in prioritizing and managing maintenance tasks efficiently,” said Ashworth. “By doing so, we can address potential issues before they escalate into costly repairs.”

The dashboard will eventually roll out company-wide and be accessible to sales, operations, and accounting, and include information relevant to those roles. But it started with service information, and accessibility to the service teams, because of their importance to the overall mission of ALL.



“We can make informed decisions quickly and maintain a high level of service,” said Ashworth. “By understanding trends and patterns within our data, we can preemptively address issues and improve operational efficiency.”

This powerful new tool is part of the work being done by ALL’s Best Practices Team, headed up by Ashworth. Now considered integral to the organization, the team helps bridge the gap between technology and business operations by ensuring the smooth functioning of complex processes and business procedures. “We recommend and implement process improvements, conduct training on new technology, and monitor the progress of new initiatives,” said Ashworth.

The Best Practices Team works tirelessly to align all departments, helping to blend innovative technology with the traditional operations on which the success of the company is built.

“Encompassing both the big-picture vision and granular details of our operations, the Best Practices Team fosters a culture of continuous improvement,” said Ashworth. “This leads the way in ensuring our company's competitiveness and success in the rapidly evolving crane rental market.” ALL

As cars became more common, the need for frequent maintenance birthed auto repair shops, the first in 1914. By 1920, they numbered 60,000.

Oil Testing: Like a Blood Test for Machines

For several years, ALL has been regularly testing oil samples drawn from its cranes. Think of oil as the blood of machinery – and a crane has a lot of it. Predominantly in the engine, but also in the gear box and transmission. ALL samples and tests all of it, in every unit. Oil samples are sent to a third-party lab, which conducts a full workup, similar to a blood panel.

The results help to get a read on the health of the machine. Just as blood tells the story of what's going on with the human body and can provide early detection against potential problems, oil testing serves the same purpose for cranes.

Depending on whether contaminants are present in oil – or even if levels of something that should be there are elevated – the service team can better understand what might be happening inside a crane. Too much iron might mean a gear is overly worn or a bearing has gone bad. Too much potassium and sodium? There's a coolant leak. Elevated chromium? It might be caused by a worn piston ring. Presence of silicone? There's probably a crack in one of the air intake hoses.

Early detection prompts immediate corrective action, which helps prevent catastrophic failure. This not only prolongs machine life, it also helps increase the likelihood of crane reliability when it's on rent to a customer.

Oil samples are drawn and sent in for central testing by any number of technicians across ALL's service network. The return is a two-page report running down the findings and flagging any areas of concern.

Recommended actions get copied to Jim Fehlman, service manager for the Cleveland engine shop. Reports clearly flag improper levels on an individual basis, so Fehlman can see exactly what is wrong with that particular sample. The information is used to direct maintenance.

More than ten thousand years ago, our ancestors discovered the benefits of oil, lubricating their newest invention…the wheel. Well oiled, the wheel was significantly easier to push. Early oils came from animals, particular roast deer fat and boiled pig, and later, vegetable oils.

SHOP **INDUSTRIAL CRANES** *from 9-25 USt*

1

Shuttlelift 5540F - S/N 321881, 2012, 15 USt, Cummins QSB3.3 (3,678 Hours), 41' Main Boom, 15' Offsettable Jib, 2 Wheel Drive, 4 Wheel Steer, Enclosed Cab, Lifting and Tie Down Lugs, Load Indicator, Strobe Light, Headlight and Taillight Grilles, Cab Dome Light. *Located in Knoxville, TN.* Unit #10552 **$90,000**

2

Broderson IC-80-3J - S/N 72020480, 2018, 9 USt, GM 3.0L Tier 2 (385 Hours), 30' Main Boom, 10' Jib, Hoist Drum Rotation Indicators, 4 Wheel Steer, 2 Wheel Drive, Rearview Mirrors, All Weather Cab, Strobe Light, RCL – Greer, Block and Ball. *Located in Nitro, WV.* Unit #11258 **$137,000**

3

Broderson IC-80-3J – S/N 67070580, 2013, 9 USt, Cummins B3.3 L Diesel (923 Hours), Catalytic Convertor, Engine Heater, 4 Wheel Steer and 2 Wheel Drive, 30 Main Boom, 10 Jib, Pneumatic 10.00 x 15 Tires, All Weather Cab, A/C, Strobe Light, Hoist Drum Rotation Indicators, RCL Greer, Block and Ball. *Located in Cleveland, OH.* Unit #10873 **$87,000**

4

Broderson IC-200-3J - S/N 226163200, 2012, 15 USt, Cummins B3.3 (4,698 Hours), 50' Main Boom, 16 Jib, 2 Wheel Drive and 4 Wheel Steer, Engine Heater, Headlight and Taillight Grilles, Strobe Light, All Weather Cab, RCL Greer, Block and Ball. *Located in Cleveland, OH.* Unit #10540 **$93,000**

5

Broderson IC-200-3J - S/N 320384200, 2019, 9 USt, GM 4.3L, Catalytic Convertor, (1,055 Hours), 50' Main Boom, 16' Jib, 2 Wheel Drive and 4 Wheel Steer, Headlight and Taillight Grilles, A/C, Strobe Light, All Weather Cab, Rearview Mirrors, RCL Greer, Block and Ball. *Located in Toledo, OH.* Unit #11430 **$215,000**

6

Shuttlelift 5560B - S/N 321952, 2012, 18 USt, Cummins B3.3 (3,354 Hours), 54'5 Main Boom, 15' Jib, Catalytic Converter, Engine Block Heater, Outrigger Position Monitoring System, 4 Independent Outrigger Controls, LMI, Enclosed Cab, Block and Ball. *Located in Toledo, OH.* Unit #10607 **$145,000**

7

Shuttlelift 7755 – S/N 321441, 2010, 22 USt, Cummins QSB 4.5 (10,736 Hours), 67' 5" Section Boom, 17' Jib, 4 Wheel Drive, 17.5-25 Bias Tires, LMI, Enclosed Cab, Cold Start Kit, Engine Block Heater, Full Lighting Package, Outrigger Alarm System, Headlight and Taillight Grilles, Lifting and Tie Down Lugs, Block and Ball. Rebuilt Scope Cylinder 2023. *Located in Baton Rouge, LA.* Unit #10367 **$181,000**

SHOP **BOOM TRUCKS** *from 23-60 USt*

1

National NBT30H2110, 30 USt crane mounted on a 2025 Freightliner 114SD 3-axle chassis, 33'–110' four section, full power telescopic boom. Swing: 410° non-continuous rotation with adjustable swing drive. Cummins X12 Engine with 450 HP and 1,650 LB/FT of Torque, Allison 4500 Transmission, 20,000 lbs. Front Axle, 46,000 lbs. Rear Tandem Axle Group, Aluminum Wheels, 80 Gallon Aluminum Fuel Tank and MUCH MORE. Unit #R2477

2

NEW Manitex 40124SHL, 40 USt, 124' Main Boom, Jib Ready, Radio A2B, Heat and A/C in Operator Cab, Front Bumper Hyd Stabilizer for 360° Load Chart, 10' Steel Bed. Mtd on a Peterbilt 567 Chassis, Cummins X15 500HP, Allison 4500 Trans, Federal Bridge Legal, Disc Brakes, 100 Gallon Fuel Tank, and MUCH MORE. (Stock Photo) Unit #R2418

3

NEW 2024 National 13110A, 30 USt, 110' Main Boom, Jib Ready, 18'8" Steel Treadplate Deck, A/C in Operator Cab, Single Front Outrigger. Mtd on a Peterbilt 567 Chassis, X15/450 HP, Allison 4500 Transmission, 20K FA 46K RA 80 Gallon Fuel tank, Backup Camera, and MUCH MORE. (Stock Photo) Unit #R2372

4

NEW Manitex 30112S, 30 USt, 112' Main Boom, 26'–46' Jib, Front Bumper Hyd Stabilizer for 360° Load Chart, Free Swing Option, A/C in Operator Cab, Out & Down Outriggers, and Extra Control Valve for an accessory. Mtd on a Peterbilt 567 Chassis, Cummins X15/500 HP, Allison 4500 Automatic Trans, 100 Gallon Fuel Tank, 20K FA, 46K Tandem, Air Disc Brakes, Zinc-Coated Frame Rails, and MUCH MORE. (Stock Photo) Unit #R2388

6

Elliott 36127R, 36 USt, 127' Main Boom, Jib Ready, Aluminum Deck, Single Sheave Block, and Ball. Mtd on a Western Star W4700 Chassis, DD13 470 HP, Allison Transmission, Dual 50 Gallon Fuel Tanks. Unit #U2225

8

Terex Crossover 4500L, 45 USt, Riding Seat Crane, 129' KEEL Main Boom, 32'–49' Offset Able Jib, X Pattern outriggers remove the need for a front stabilizer, Aux. winch, Anemometer, Removable front window in operators cab, Heat & A/C. Mtd on a Western Star 4700 Chassis DD13 380 HP, 8LL Trans, 20K F/A 46K R/A, three 8,000lb lift axles one tag and two pushers. Federal Bridge Law Legal. Unit #X2438

5

NEW 2023 Manitex 26101C, 26 USt, 101' Main Boom, 29' Jib, Rotation Resistant Rope, Continuous Rotation, Front Bumper Hyd Stabilizer for 360° Load Chart, Out & Down Outriggers, Oil Cooler, Bulkhead, and Extra Control Valve for an accessory. Mtd on a Freightliner 114SD+ Chassis, Cummins X12/455 HP, Allison 4500 Trans, 20K FA, 40K Tandem, Air Disc Brakes,100 Gallon Fuel Tank, and Backup Camera. (Stock Photo) Unit #R2412

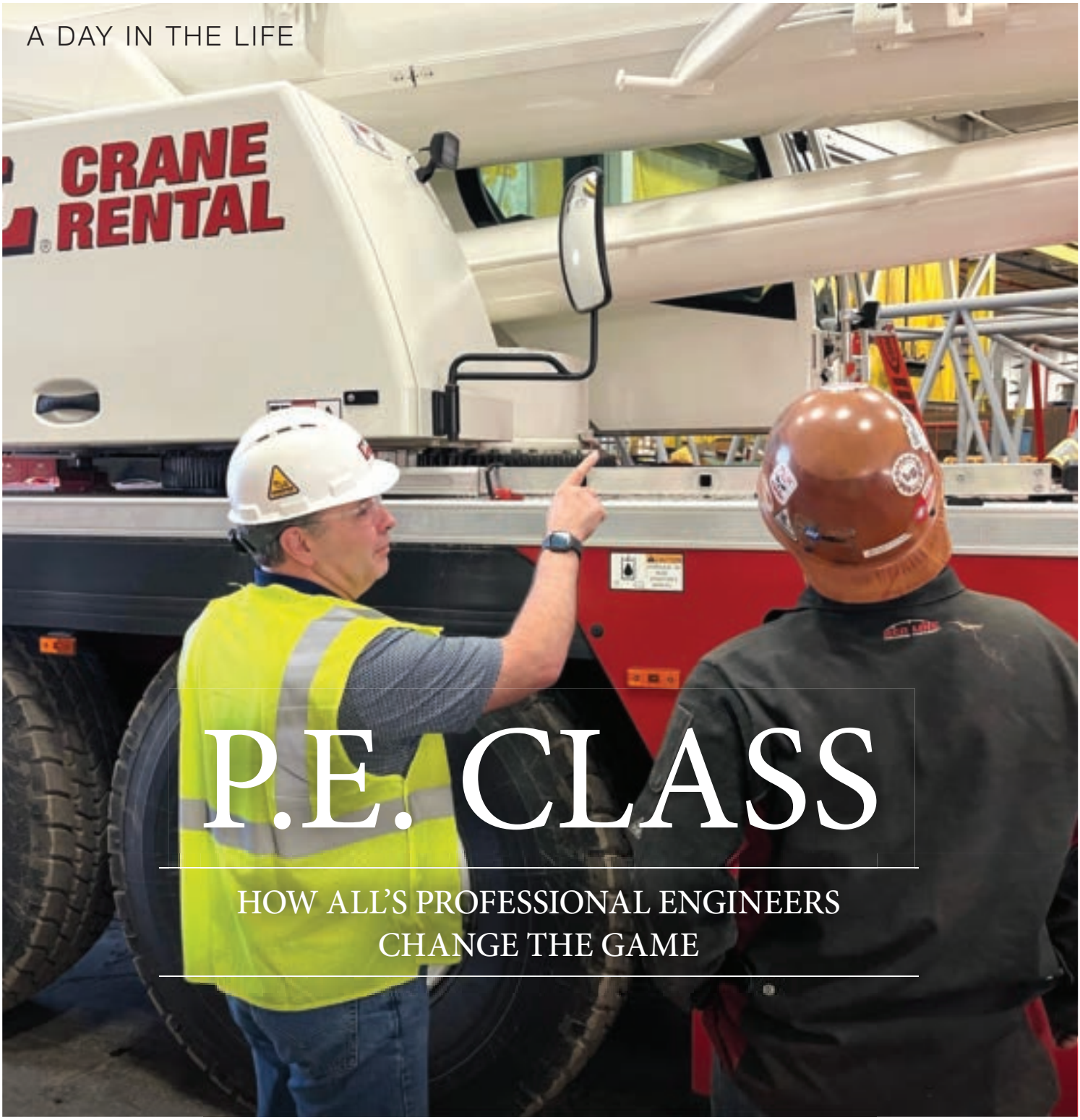
7

NEW National NBT45127-2, 45 USt, 127' Main Boom, 31'–55' Jib, Front Bumper Stabilizer for 360° Load Chart, Internal A2B, and Max cwt. Mtd on a Peterbilt 567 chassis, X15/500 HP, 18-Speed Ultrashift Trans, Federal Bridge Legal, 100 Gallon Fuel Tank, Locking Rear Axles, and Wheel Ends, Alum Wheels, AM/FM Radio, Bluetooth Capable, and MUCH MORE. (Stock Photos) Unit #R2376

9

NEW National NBT60XL, 60 USt, 151' Main Boom, 36' Able to Offset Lattice Jib, and Internal A2B. Mtd on a Peterbilt 567 5 Axle Chassis, X15, Allison 4700 Transmission, and MUCH MORE. Unit #R2425

A DAY IN THE LIFE



P.E. CLASS

HOW ALL'S PROFESSIONAL ENGINEERS CHANGE THE GAME

NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

The NSPE was established in 1934 to realize a simple but vital goal: create an inclusive, nontechnical organization dedicated to the interests of licensed professional engineers, regardless of practice area, that would protect engineers (and the public) from unqualified practitioners, build public recognition for the profession, and stand against unethical practices and inadequate compensation.

At their core, engineers use science and mathematics to solve technical problems and improve efficiency. So it's understandable why the ALL Family of Companies, which exists in a highly technical realm, and one in which time is money for its customers, would want its own engineers on staff.

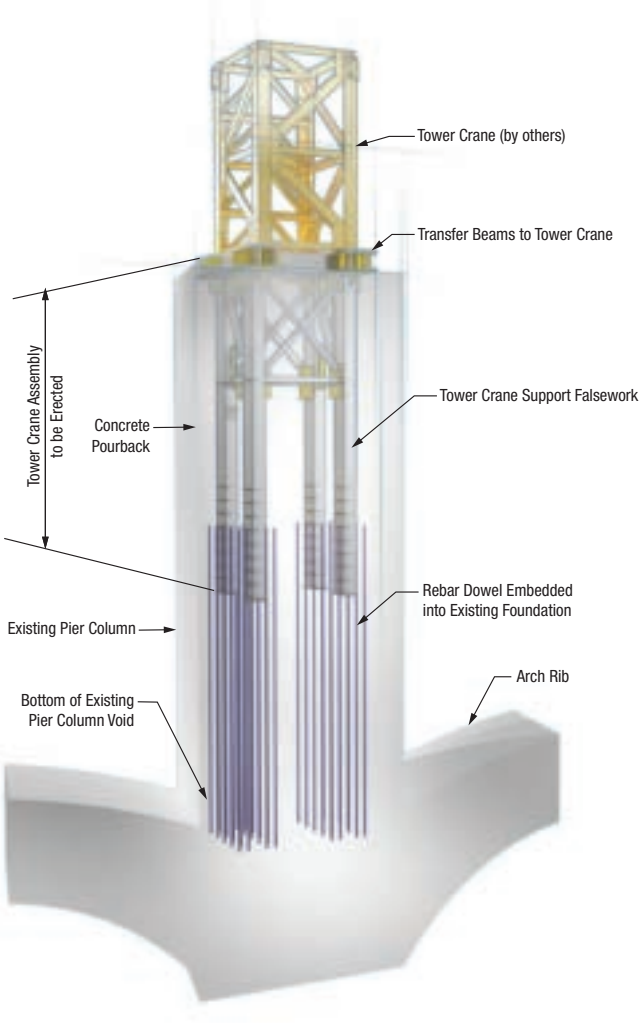
ALL has two professional engineers. Sam Moyer, P.E., is general manager of ALL Tower Crane. John Stolarczyk, P.E., S.E., is a heavy lift engineer who works out of Dawes Rigging & Crane Rental in Wisconsin, but whose services are available to any ALL branch.

By definition

So, let's start with the letters after their names. What do they mean?

Both have P.E., which signifies that both are professional engineers. This means they are licensed by a state board of registration to practice engineering. The P.E. license is the engineering profession's highest standard of competence, a symbol of achievement and assurance of quality.

Stolarczyk also has S.E., which stands for structural engineer. Stolarczyk says it's best understood as a specialty designation related to civil engineering. The structural engineering registration requires two additional years of experience beyond the civil engineering exam as well as an additional 16-hour examination.



W. 3rd Street Bridge, Minnesota. Traditional bridge rehab lifting solutions, including barge-mounted cranes or cranes on the bridge deck were ruled out. ALL needed an engineering solution. Tower cranes were embedded into the bridge using the existing bridge piers as anchors.

Tower Cranes

Moyer started at ALL Tower as an application engineer (a role now fulfilled by Daniel Giera) before being promoted to general manager six years ago. In addition to his responsibilities over day-to-day operations, Moyer's engineering duties include developing assembly and disassembly plans for towers, generating crane reactions, tie-in points and methodology, and creating designs for the custom foundations most require. "Every foundation design is unique because every job site is a little different," said Moyer.

Moyer believes having engineers on staff provides an advantage for ALL customers because it gives them access to a one-stop shop. "We can deeply collaborate on projects that require months or even years of planning," said Moyer. "We can help plot where it's best to place towers, so the customer can incorporate foundations and loads into the design of their building. It creates efficiency in the long run."

Not every job will come with a year's notice, obviously, and that's fine, too. "Even if we're not involved until later, we're still a turnkey solution," said Moyer. "From foundation design and assembly planning to having our own trucks for delivery, our own assist cranes, and coordinating the erection crew, we can manage every aspect of the tower."

Designing tower crane foundations is work that usually requires an engineer licensed by

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Tower cranes become unlikely heroes of downtown Minneapolis' Third Avenue bridge project. The engineering work earned ALL the cover of the May 2021 issue of Roads & Bridges magazine. The article published as "Tower Power."

Left: Sam Moyer, P.E., General Manager, ALL Tower Crane . Right: John Stolarczyk, P.E., S.E, Heavy Lift Engineer, Dawes Rigging & Crane Rental.

the state in which the project occurs, which is why Moyer has earned the P.E. designation in 10 states.

Mobile Cranes

Meanwhile, Stolarczyk is licensed in 16 different states. Each license needs to be renewed every two years, and of course, each has a cost associated with it. License-holders also need to meet varying continuing education requirements. Stolarczyk says his add up to about 15 hours a year.

As a professional engineer for ALL, Stolarczyk mostly works on mobile lift plans, in contrast to the tower work done by Moyer (although there is some crossover in their responsibilities). "A lot of the job is creating and verifying lift plans," said Stolarczyk. "ALL uses a variety of software to design its lift plans; most plans are executed by a sales rep or branch manager. And those are perfectly suited for many of the jobs we do."

But if a customer or general contractor needs an official, stamped-by-an-engineer lift plan, that's where Stolarczyk comes in.

Most lift planning software has crane information already preloaded, divided by make, model, and type. First he has to double-check that the crane specifications loaded into the software are accurate; things like load charts, tip heights, and more.

Stolarczyk also needs to gather information about the job site, to verify that the virtual environment within the plan is true. "For example, to authenticate radii, I need to know where the lifts are occurring, the reach to the delivery vehicle, and the reach to final position," said Stolarczyk. "Any height the crane has to hit, I have to know if it's clear or if there are

The Millau Viaduct is one of the most impressive engineering ventures. The conduit spans the valley of the River Tarn in southern France, a distance of 8,071 feet (1-½ miles) and its highest tower soars to 1,125 feet, surpassing the Eiffel Tower (986 feet), making it the tallest cable-stayed road bridge in the world.

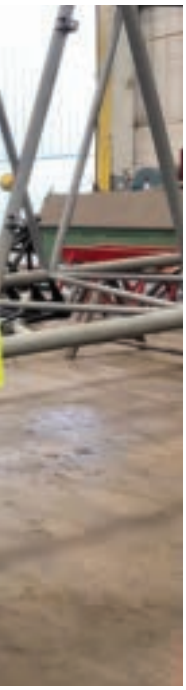
obstructions. Then there are other details, such as, can a truck crane be steered here? Are we able to get different crawler crane components in?"

Finally, he checks all the measurements and math used in the lift plan, making sure everything adds up.

Other responsibilities

Additionally, Stolarczyk often gets involved in projects with sensitive ground bearing pressures – where either the combined weight of the equipment and load will be very high or the ground itself can't accommodate high pressures. "These sites often need intricate ground mat designs to get the pressures down, or there are many steps to get the project done correctly," says Stolarczyk. His skills are also called upon if a lift must be executed within tight confines, requires complex rigging, or if a site registers concerns such as a cracked foundation that requires further investigation.

When performing work directly related to a job, Stolarczyk evaluates alternate products for possible company use, such as alternate matting options, and works on internal engineering projects such as evaluating existing structures and load-rating various fabrications used in-house.



Back at ALL Tower Crane, Moyer also juggles a multitude of projects, for which he's designing foundations, getting contracts signed, and tracking progress toward deliverables. He also investigates new markets for potential expansion, and fields calls from customers who need help in a pinch. "I enjoy helping to solve those kinds of problems," he said. In between, he's keeping up with continuing education credits.

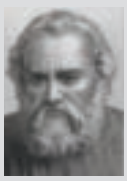
As with many jobs, there is no "typical day" for these engineers. But both stand at the ready to help ALL customers achieve their most complicated projects and lifts. ALL

ALL Tower's Sam Moyer to Deliver Keynote at North American Conference

Sam Moyer, general manager of ALL Tower Crane, was chosen to deliver the keynote address at this year's Tower Cranes North America Conference. Sponsored by American Cranes & Transport and International Cranes and Specialized Transport magazines, in exclusive partnership with the Specialized Carriers & Rigging Association (SC&RA), the conference is the premier networking event for North America's tower crane industry.

Moyer's keynote address focused on the latest trends in tower cranes. "It covered utilization trends, of course, but also drilled down into other trends related to the industry; for example, trends in engineering, contracts, service, and project types," said Moyer. "Different solutions have become more accepted in different markets, and with this being a multi-national conference, it prompted a good discussion from attendees representing a variety of perspectives."

The major players in North America's tower crane industry met up at the conference in Nashville, June 11-12, to discuss "what's up" in this sector of the lifting industry.



Archimedes of Syracuse was one of the world's first engineering visionaries. He was an ancient Greek mathematician, physicist, engineer, astronomer, and inventor. The Archimedean Oath is taken by some engineers.

SHOP **CRAWLER CRANES** *from 75-660 USt*

1

Manitowoc 16000 - S/N 16001074, 2008, Cummins QSX15-500 Tier 3 (11,496 Hours), 295' Main Boom, Upper Boom Point, Maxer Prepped, Self Erect, Aux. Drum Prepped, A/C, Wind Anemometer, Cold Weather Package, Block and Ball. *Located in Elk Mound, WI.* Unit #10173 **$1,493,000**

2

Link-Belt TCC750 - S/N R8K0-1879, 2010, 75 USt, CAT C6.6 (17,057 Hours), 115' Main Boom, 33;-58' Bifold Jib, Aux. Hoist, Block and Ball. *Located in Baton Rouge, LA.* Unit #10341 **$297,000**

3

Link-Belt LS138HSL - S/N P8J7-9649, 2007, 80 USt, Isuzu 6HK1 (16,956 Hours), 150' Mani Boom, 3rd Drum, Free Fall, Block and Ball. *Located in Kaukauna, WI.* Unit #9852 **$297,000**

4

Manitowoc 2250 - S/N 2251359, 2012, 300 USt, Cummins QSX-15 Tier 3 (10,053 Hours), 200' Main Boom, Free Fall, Self Erect, Series 3 Counterweights, Auto-lube for Turntable and Crawlers, Wind Anemometer, A/C, Maxer 2000 Prepped, Cold Weather Package, Hook Block, Single Sheave Block, and Ball. *Located in Cleveland, OH.* Unit #10537 **$1,425,000**

5

Manitowoc #133A Luffing Jib - S/N 2505034, 1996, 200' Boom, Drum, Updated 1" Sheaves and Cable, New Paint in 2018. Located in Cleveland, OH. Unit #5594 **$143,000**

6

Complete MAX-ER 2000 - S/N 2253126, 2001, Wheeled Counterweight Carrier, 200' #79 Boom, 341,000# of Counterweight, Newer Paint and Tires. *Located in Cleveland, OH.* Unit #8001 **$337,000**

7

Link-Belt TCC1100 - S/N S1K3-3755, 2013, 110 USt, Cummins QSL9 (9,047 Hours), 150' Main Boom, 10' – 31' – 55 Jib, Aux. Hoist, Toolbox, Rotating Beacon, Upper Mount Working Lights, Block and Ball. *Located in Cleveland, OH.* Unit #10819 **$689,000**

8

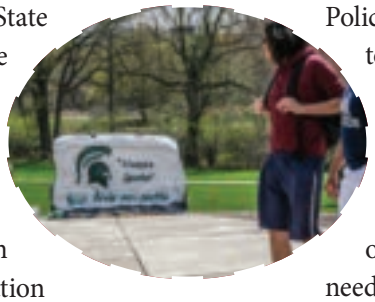
Kobelco CK1100G-2 - S/N GH05-04127, 2017, 110 USt, G Engine (7,933 Hours), 150' Main Boom, 3rd Drum, Aux. Sheave, Block and Ball. *Located in Pittsburgh, PA.* Unit #J6602TOL **$773,000**

SPARTAN SPANNING

900-TON AT SETS BRIDGE BEAMS ON MICHIGAN STATE CAMPUS

Sparta was a warrior society in ancient Greece that reached the height of its power after defeating rival city-state Athens in the Peloponnesian War (431-404 B.C.). Spartan culture was centered on loyalty to the state and military service. The long Peloponnesian War was the undoing of ancient Greek.

On the campus of Michigan State University, Farm Lane Road is the most important north-south corridor. Its bridge, spanning the Red Cedar River, connects the two sides of the campus and provides access to a legendary landmark, The Rock (a boulder that has been decorated thousands of times since its donation to the university in 1873).



When a 2019 inspection resulted in a downgrade to the Farm Lane Road bridge's weight limits, it was only a matter of time before replacement would be necessary. The bridge carries an estimated 12,000 vehicles and 7,000 pedestrians on a typical class day.

The replacement project began during the 2023 school year, with total closure of the bridge. This spring, Jeffers Crane Service of Toledo, Ohio, a member of the ALL Family of Companies, helped set beams for the new bridge.

Jeffers got the call because it could deliver a 900-ton Liebherr LTM 1750-9.1 all terrain crane to single-pick the massive bridge beams. Each weighed 64 tons and were 120 feet long.

What's it like piloting such a large machine through a college campus?

"Our plan was thorough and well executed," said Ben Stachnik, project manager for C.A. Hull, the project's bridge contractor and Jeffers' customer. "MSU's Department of Police and Public Safety coordinated with crews to close intersections and lanes so Jeffers could deliver the crane and kept one lane of Farm Lane Road closed for the duration of the lifts."

Where the crane rested was actually more of a challenge. Because of where the crane needed to sit for the boom length to accommodate the load, outriggers would be resting just behind an abutment wall. This required building the crane pad as evenly as possible with the roadway on which the crane was sitting. Using load charts from the lift, C.A. Hull custom-designed a stack of crane mats to safely raise the elevation of the pad where the outriggers would rest.

The Liebherr LTM 1750 was configured with 164 feet of main boom and Y-guying for added boom strength. Jeffers built the crane on Monday, pulled onto the crane pads on Tuesday, and was picking by Tuesday afternoon. Work continued into Wednesday, with the Jeffers operator picking

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MSU's "The Rock" has quite a history. The giant, hand painted billboard that hundreds of students gather around throughout the year was donated as the class gift from the Class of 1873. The 18,000-year-old pudding stone that was left behind from a glacier was pulled from the Delta, the triangular piece of land at the corner of Michigan and Grand River Avenues.

and setting one of the beams approximately every 30 to 45 minutes. Beam setting was concluded by noon on Wednesday.

To prevent the need for beams to be flipped in the air, each flatbed delivery was instead maneuvered through campus to properly position each piece for easier pickup and a more direct placement by the crane. Here, again, Stachnik credits the cooperation of campus police. "We had to turn the beams around in the middle of campus to get them oriented the correct way. MSU's Department of Police and Public Safety worked with our partner, Granger Construction, on logistics to ensure smooth delivery." ALL

Rendering courtesy of msu.edu.com

The $44 million project includes demolishing and reconstructing the Farm Lane bridge, constructing a new pedestrian bridge, and resituating key utilities that the bridge carries.

Harry S. Truman was president and Elvis was a mere 13 when, in 1948, Paul R. Jeffers opened a small crane rental company near Toledo in Oregon, Ohio. The company prospered and grew, moving to a larger location in 1982. Jeffers was purchased in 1995 by ALL Erection & Crane Rental Corporation.

Inspiring future generations, Michigan State University is first in the nation for 26 straight years for graduate programs in elementary and secondary education.

NEW EQUIPMENT:

Choices and Service Mean Leadership

Demand for owned cranes is at an all-time high driven in part by limited new crane availability and price increases due to higher raw material costs and supply chain delays.

As a new equipment dealer, the ALL Family offers a direct link between customers and virtually any type of lift equipment, including cranes, aerial lifts, boom trucks, and industrial/carrydeck cranes. Plus, because of the scale of our enterprise, we are fortunate to have stock on high-demand equipment.

Reliability, quality, parts, and service: These are the pillars of our business. Because integrity isn't only in the transaction, it's how we build generational relationships with our customers.

ALT SALES CORP

NATIONAL CRANE by Manitowoc ELITE DEALER

ALT Sales Corp. offers the best names in new and used equipment, including boom trucks, articulating boom trucks, service trucks, tractors, and trailers. As a recognized Elite Dealer for National Crane, they've proven that they are customer-focused and can provide excellent service and access to parts after the sale.

Pictured: 2023 Manitex TC50128S

BMC BRODERSON Manufacturing Corp.

Full-line dealer for Broderson Carry Deck Cranes, including multiple sizes and capacities, and optional equipment for customization.

NEW Broderson IC-400-3B Carry Deck Crane

- Compact, low profile
- Clears overhead obstacles and maneuvers in tight spaces
- Day-in, day-out performance and versatility
- Precision controls and heavy-duty design to pick and carry
- 20' Offsettable boom extension
- Enclosed Cab
- Heat & A/C
- 1 Year Warranty

Capacity on Outriggers..... 25 USt / 50,000 lb

Pick and Carry Capacity ... 12.5 USt / 25,000 lb

Maximum Tip Height..... 99'

Max Horiz. Reach..... 90'

Machine Height..... 11'3"

Machine Width ..... 8' 6"

Members of the ALL Family are authorized dealers for many popular brands of cranes, boom trucks, aerial boom and scissor lifts, as well as telehandlers and trailers.

NATIONAL CRANE by Manitowoc | SHUTTLELIFT by Manitowoc | POTAIN by Manitowoc | HY-BRID LIFTS | Link-Belt CRANES

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Link-Belt CRANES

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• 250 USt capacity
• 43.7'-223' seven-section boom length
• 346' max tip height

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- 41' five-section boom length
- 39.8' x 570 lb. Max Working Radius
- 51" Wide - Fits through double door

Maeda mini cranes have a number of optional attachments, including an electric motor, searcher hook, non-marking tracks, auxiliary winch, and the vacuum glass manipulator.

Genie ZX-135/70
- Articulating Boom Lift
- 135' platform height
- 600 lb capacity

Genie boom lifts and scissor lifts can be found on many of our jobsites across North America. We rely on their equipment on a daily basis, and are proud to be dealers for their full line of aerials. Contact your local ALL Family branch to learn more about adding Genie equipment to your fleet.

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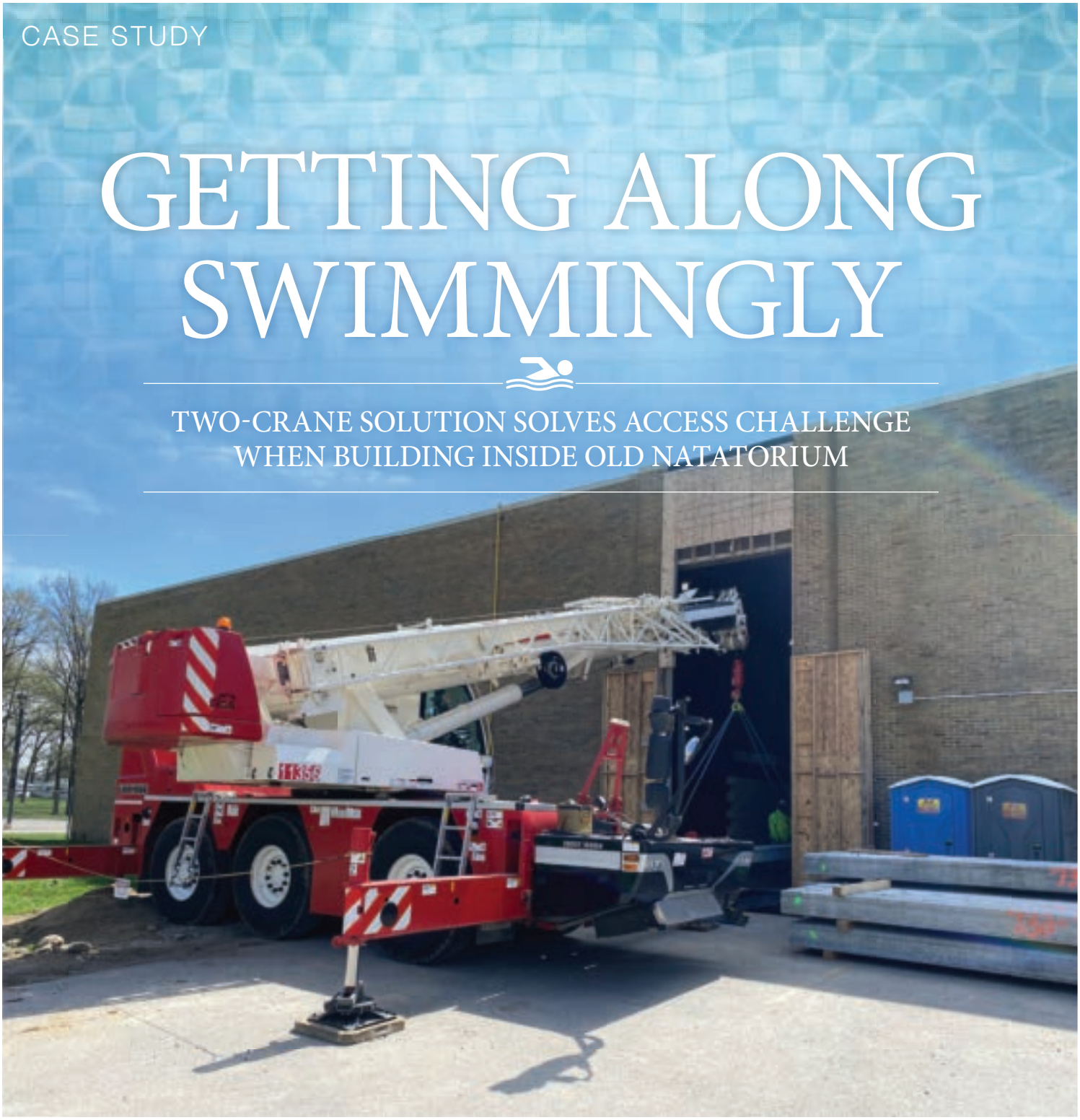
JLG MC BROOKERSON Manitex SkyCrane Genie LINDOLL MAEDA Mini Cranes

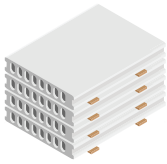
CASE STUDY

GETTING ALONG SWIMMINGLY

TWO-CRANE SOLUTION SOLVES ACCESS CHALLENGE WHEN BUILDING INSIDE OLD NATATORIUM



In 1828, the first public indoor municipal swimming pool opened in England. The club was called St. George's Baths and was a salt water pool.



Converting an indoor swimming pool in Lorain, Ohio, into a meeting area and classrooms was going to take precast planks.

However, there was no obvious way to get the planks inside the existing, about-to-be-transformed natatorium structure. Not only could a delivery truck not back into the building because there was no doorway large enough, even if it could, the placement of stairwells and other interior elements would have made navigation impossible.

So, what to do? ALL Erection & Crane Rental, a member of the ALL Family of Companies, worked with precast manufacturer Mack Industries on a novel solution for contractor John G. Johnson Construction. ALL started by determining what lift equipment could fit inside the building and Mack reverse-engineered its precast planks to suit the resulting radii and capacities.

Brian Meek, sales rep for ALL Erection & Crane Rental, says they landed on the unique solution of using two pieces of lift equipment – one outside the building, and a carry deck inside – to "hand off" each precast plank.

Set up outside was a Liebherr LTC 1050 all terrain crane. With three axles and a 50-ton capacity, it drives more like a truck crane. Its job was to pick planks off the delivery truck, boom each piece through a doorway, and set it on the floor. Then a 25-ton Broderson IC-400 carry deck crane took over. Here is how Meek explained it: "The Liebherr lays down the precast, the Broderson drives to the doorway, picks up the piece, performs a pick and carry to the set position, then deploys its outriggers before setting the piece."

It's a complex series of steps, one that required the Broderson to employ three different load charts for each pick – pick and carry on rubber, intermediate outriggers, and full outriggers.

The capacities and radii necessary limited the size of each plank to 21 feet long and four to five feet wide, with weights of approximately 6,000 pounds. Mack Industries custom-cast each piece especially for the job.

The carry deck crane was, of course, building new interior walls for classrooms while also being confined by the already-existing walls of the natatorium. Eventually, it would be sandwiched between both walls. This limited the reach, and the near radius was limited by the presence of the ceiling, so the plank couldn't be

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The world's largest single piece of load-bearing acrylic is also the world's first floating pool. Unveiled in London in 2021, the "Sky Pool" stretches 82-feet connecting the two separate roofs of the hotel-like, 5-star, Embassy Gardens.

1 A Liebherr LTC 1050 all terrain crane pick planks off the delivery truck.

2 A 25-ton Broderson IC-400 drives to the doorway, picks up the piece, performs a pick and carry to the set position.

lifted too closely, either.

Because of a well thought-out plan, ALL worked with Mack Industries to set the 30 precast planks in less than two full days.

"Carry decks aren't often used on construction projects, but they are ideal for work on flat, concrete surfaces, like industrial plant operations," said Meek. "Because we were unable to drive the precast directly into the building as we typically do on this kind of project, the Broderson was a perfect solution working in tandem with the Liebherr LTC 1050." ALL

The earliest known public water tank was built over 5000 years ago in the ancient Pakistan city of Mohenjo-daro. Called "The Great Bath", the water tank was most likely used for religious ceremonies and "ritual bathing," as opposed to public swimming.

3 *The Broderson deploys its outriggers before blind setting the piece , guided by John G. Johnson Construction team members.*

Around 800 B.C. to 600 B.C, the Ancient Greeks build the first community-based, recreational swimming pools. While 1,500 years earlier, cave paintings show figures appearing to swim. These were the first known art depicting swimming.

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1

JLG G10-55A, S/N 0160067848, 2015, 10,000 lb Capacity, Cummins Diesel, Foam Filled Tires, 4x4, Enclosed Cab. Unit #11115 **$58,500**

2

Caterpillar P8000, AT4000723, 2013, 8,000 lb Capacity, Nissan Dual Fuel Engine, Solid Tires. Unit #10787 **$45,000**

3

Skyjack SJ843, S/N 87110861, 2017, 8,000 lb Capacity, Deutz DSL, Foam Filled Tires, 4x4, Enclosed Cab. *Located in Lima, OH.* Unit #11233 **$63,000**

4

JLG 600S, S/N 0300197570, 2015, 60' Platform Height, Deutz Diesel, Sky-Power, Foam Filled Tires, 4x4. *Located in Madison, WI.* Unit #K2759 **$43,000**

5

JLG G9, 2015, 9,000 lb Capacity, Foam Filled Tires, Cummins Diesel, 4x4, Enclosed Cab. Unit #11095 **$53,000**

6

Skyjack SJ8243, S/N 343828, 2007, 43' Platform Height, Nissan Dual Fuel Engine, 4x4. *Located in Richfield, OH.* Unit #K1869 **$8,500**

7

Hy-Brid HB-1430, S/N D02-11829, 2016, 14' Platform Height, DC, Non-Marking Tires, 2x4. *Located in Richfield, OH.* Unit #K3015 **$5,000**

8

Skyjack ZB2044, S/N 85800116 2016, 20,000-lb Capacity, Cummins Diesel, Foam Filled Tires, 4x4, Enclosed Cab. *Located in Kaukauna, WI.* Unit #11205 **$120,000**

9

Genie Z-135/70, S/N Z13508-744, 2008, 135' Platform Height, Deutz DSL, JIB, Generator, Foam Filled Tires, 4x4. *Located in Richfield, OH.* (Stock photo) Unit #K2156 **$35,000**

SHOP **TRUCKS & TRAILERS**

1

Peterbilt 388 Day Cab, 2008, Fuller 18 Speed Transmission, ISX Cummins 600hp, 20,000lb Watson & Chalin Axle SL2089, 14,600 lb. Front Axle, 46,000 lb. Rear Axle, 236 WB, 3.91 Rear Axle Ratio, 3/4' Steel Frame Liner, Holland Air Slide Fifth Wheel, Dana Front and Rear Axles, Dana Full Lock Diff High Efficiency, Cooling Tires 11R24.5 Alum Wheel Aluminum Hubs Front - Rear Dual, 135 Gal Fuel Tanks, Prestige Interior Cab, Air Suspension Gauges, Aluminum Cab Ultra ride seats, Pwr Windows - Locks, Adjustable Steering Wheel. Sold As Is. Inspections Welcome. Unit #X353 **POR**

2

Landoll 455-50CA, 2011 55 USt Payload Capacity, 30,000 lb. DP Winch, Apitong Wood Deck, Air Ride Suspension, Hub Pilot Wheels, Additional XMembers, Light Package, Centralized Grease, Wireless Remote, Cable Roller Guide, Pressure Guard Inflation, Galvanized, 235/75R 17.5 Tires, All Steel Wheels. 49'1" length, 102" width, 37' height. Unit #X1023 **POR**

3

Talbert TD6, 2000, 100 USt, Up to 10 Axles, Jeep Dolly, 30' Trailer, 10' Insert, Deck Extension, Stinger, Hendrickson Pin On Axle. Out Riggers. 255/70R22.5 Tires.105' Length, 10" Width, 40' Well Length, 104" Swing Clearance, 8" Ground Clearance, Sold as is. Inspections Welcome. Unit #CL550 **POR**

Manac High Flat Stretch Southern Trailer, 2000, Manac 48'–80' Stretch in 6' Increments, Southern Trailer, Air Ride, 11 x 12.5 Tires, 48' Length, 102" Width, Ready to Work. Sold as is. Inspections Welcome. Unit #CL641 **POR**

4

MLC300 AT 10

REVOLUTIONARY MANITOWOC CRAWLER DEBUTED IN 2014. ALL ORDERED THE FIRST 10 UNITS.

The MLC300 provides greater lifting capacity and more stability, and it needs less ground prep time and less matting. With the MLC300 and its VPC system on an average job, the number of required mats can be reduced by 50%. That can mean thousands of dollars in savings per month.

In 2014, Manitowoc unveiled the MLC300 lattice boom crawler crane.

In 2014, Manitowoc unveiled the MLC300 lattice boom crawler crane. It was the first crawler in the 300-ton weight class to feature Manitowoc's patented VPC (Variable Position Counterweight) technology. This lifting technology responds to the load on the hook by sliding the counterweight back and forth, as needed, to maximize lifting capacity and reduce overall tail swing.

That simple description really doesn't do it justice. Nothing like this had been done on a crawler before. It enabled the crawler to fit within a smaller footprint and also improved capacities, opening up doors to new uses while saving time and money.

The impact was immediate. ALL ordered the first ten MLC300s off the line when they were still in the prototype stage. Ten years later, the MLC300 remains an in-demand crane.

The MLC300 sits in a sweet spot with its capacity, and its many advantages allow it to compete with higher-capacity cranes as well.

Kevin Blaney, Manitowoc's vice president of North American crawler crane sales, says the MLC300 was revolutionary.

"The VPC design gave the MLC300 a smaller footprint, which created a number of benefits. It reduced ground preparation area and the number of truckloads required for delivery – which contributes to faster set-up times. Those all save money for customers," said Blaney. "The ability to optimally position the counterweight in combination with the smaller footprint allows the MLC300 to do jobs that previously required a larger crane."

The MLC300 is also compatible with Manitowoc's VPC-MAX capacity-enhancing attachment. It enables increased capacity for heavy lifts that might normally require a wheeled-type ballast trolley. Instead, the VPC-MAX attachment increases capacity and boom and jib combination lengths while staying completely off the ground. It requires only one-tenth the area of ground preparation than other models that use conventional counterweights. Because the counterweight attachment of the VPC-MAX never touches the ground, the MLC300 has the ability to work in applications and locations once thought impossible for a crane of this capacity.

"We knew the 275- to 300-ton class was in-demand, so we knew there was a market for the MLC300," said Blaney. "And with what is achievable with the VPC and VPC-MAX technology, the crane can do work normally undertaken by a 400- or 500-ton crane. It is competitive with larger machines, and that creates value for users."

ALL understood the potential of the technology from the start and followed it through development and beta testing, leading to the order of the first ten units.

In the years that followed, ALL's MLC fleet grew after buying in big with VPC technology in 2014 with the purchase of the original ten MLC300s, battle-testing the then-new technology and acting as an incubator for improvements.

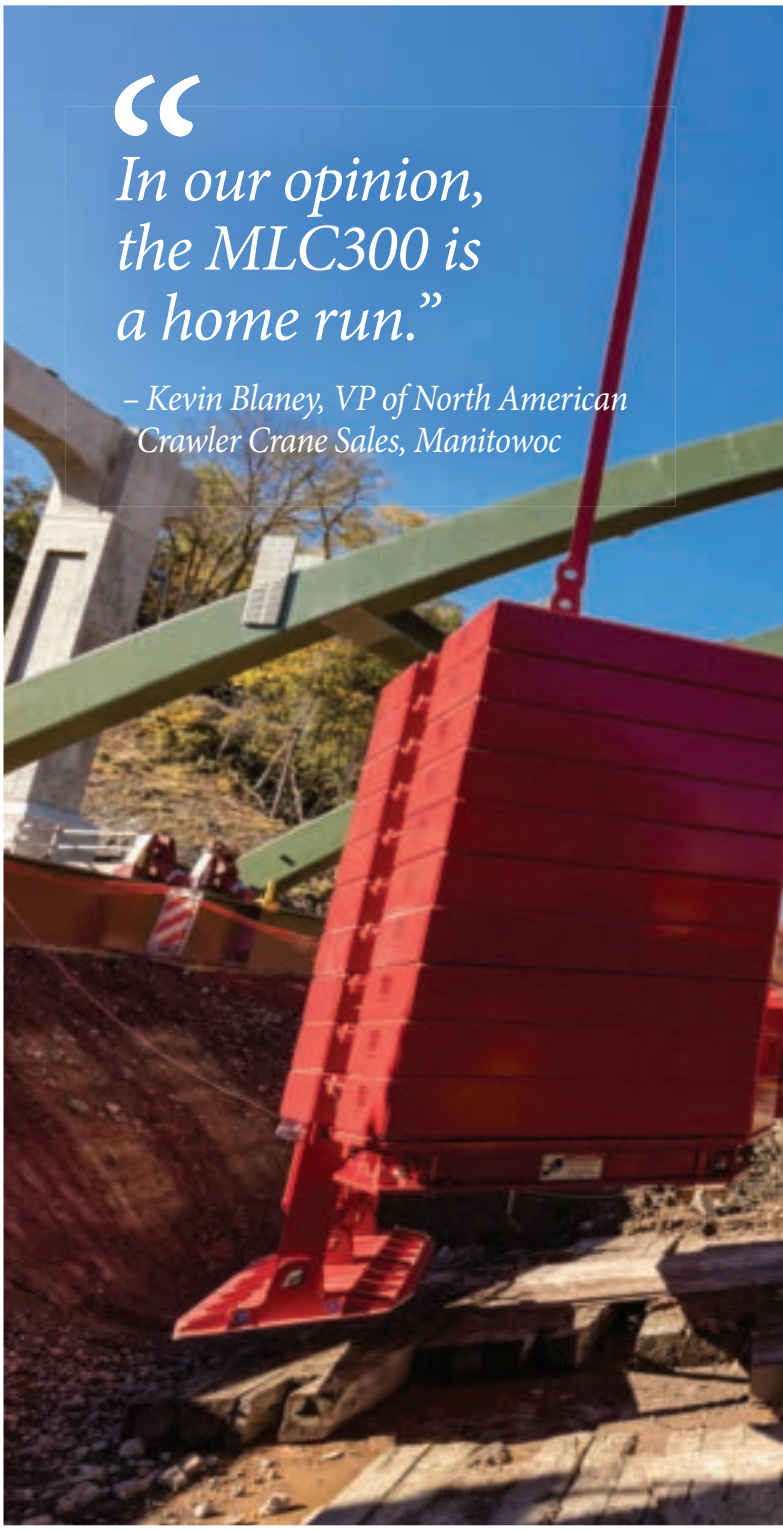
continued on page 46

Typical crawlers are heel heavy with no load on the hook. Then, when lifting, weight transfers to the toe. Like a teeter totter, weight shifts back and forth. To create stability, much more ground prep is needed. MLC automatically balances its center of gravity by shifting the counterweight back and forth depending on the weight on the hook.

Then in 2017, ALL added two Manitowoc MLC650 crawler cranes, strengthening the fleet in critical industries, especially for energy-related projects, including refineries, petrochemical installations, and power plants, as well as infrastructure applications. The crane has a 717 USt capacity, which increases to 770 USt when VPC-MAX is installed. In 2022, Manitowoc added the MLC250, a 275 USt capacity unit, and ALL added those units to the fleet.

What do the next 10 years hold for the MLC300? Blaney anticipates new iterations that adapt to changing technology and market demands.

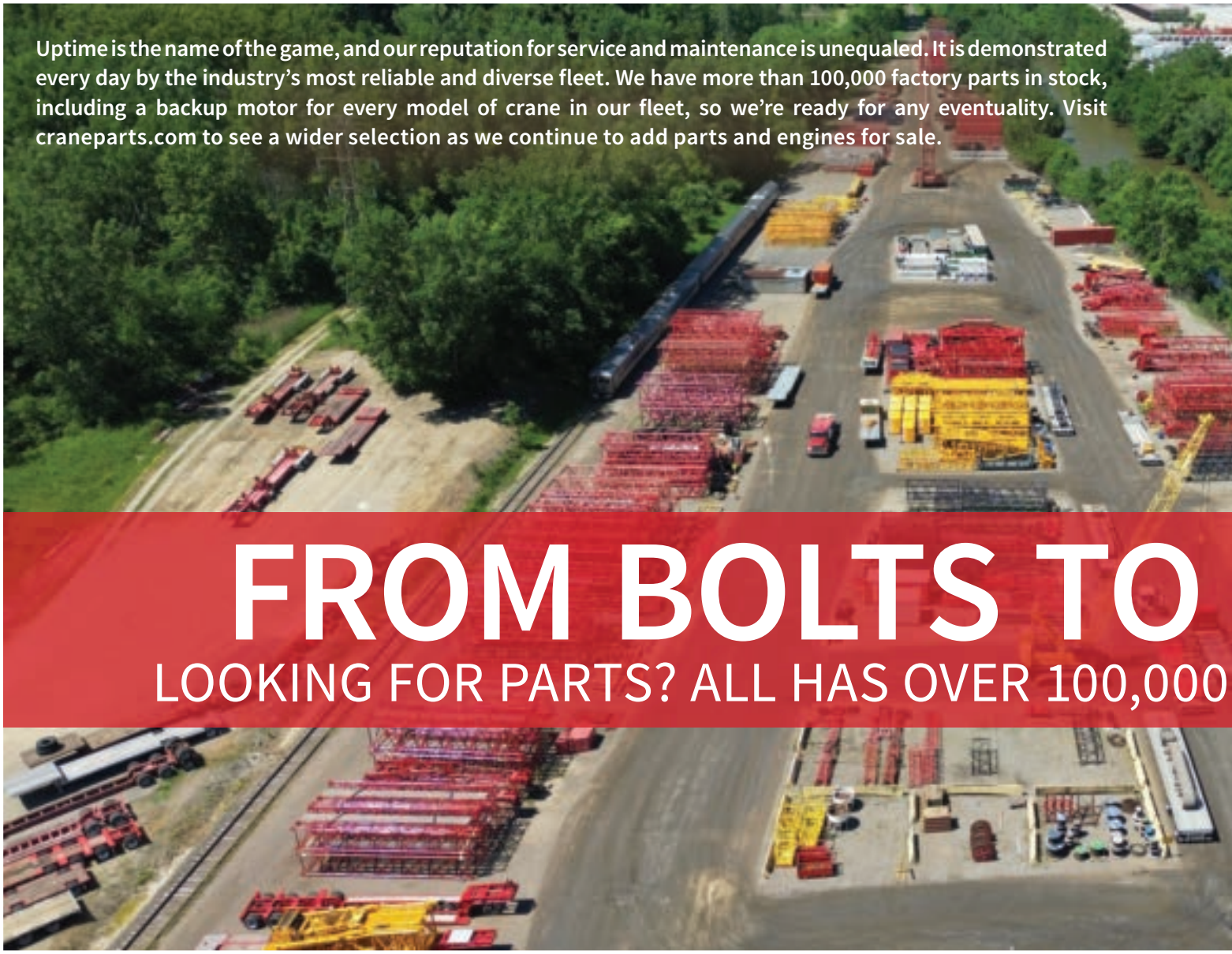
"In our opinion, the MLC300 is a home run," said Blaney. "Its original innovation will remain at its core as we add new features to make it the latest and greatest version possible."



The circle in the graphic shows the typical ground prep area for a traditional crawler with wheeled counterweight derrick. The square is the ground prep area needed for MLC. VPC moving counterweight optimizes distribution of ground-bearing pressure during setup and lifting operations.

Follow the tracks. A snowy day demonstrates the amount of ground prep needed for a Manitowoc 2250 with wheeled MAX-ER. With the MLC VPC-MAX technology, the counterweight assembly never touches the ground.

SHOP **CRANE PARTS** FIND MORE PARTS AT CRANEPARTS.COM



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TEN YEARS AGO

The first Manitowoc MLC 300, *2014.*

In 2014, there was a lot to celebrate. The ALL Family turned 50 years old and Manitowoc helped us blow out the candles at CONEXPO/CONAGG. At the show, Manitowoc was unveiling their exclusive Variable Position Counterweight (VPC) system and the ALL Family of Companies, recognizing the inherent value, secured the first 10 produced. In this issue, Manitowoc's Kevin Blaney reflects on the past ten years, the VPC technology, and the relationship with ALL.

See page 44 to read the feature.