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The Utility Source™ is published twelve times a year on a monthly basis by CJS Media, Inc. The Utility Source™ is distributed free to qualified subscribers. Non-qualified subscription rates are \$57.00 per year in the U.S. and Canada and \$84.00 per year for foreign subscribers (surface mail). U.S. Postage paid at Birmingham, Alabama and additional mailing offices.

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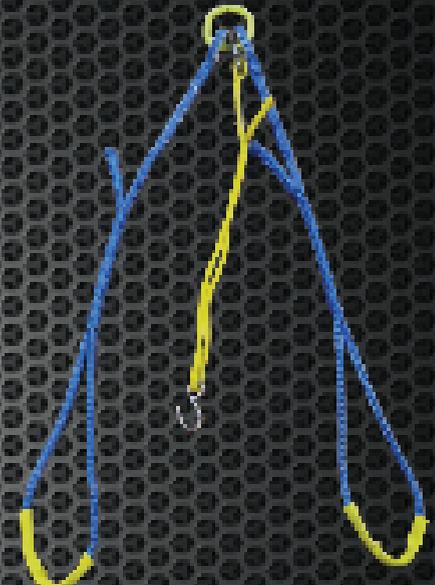
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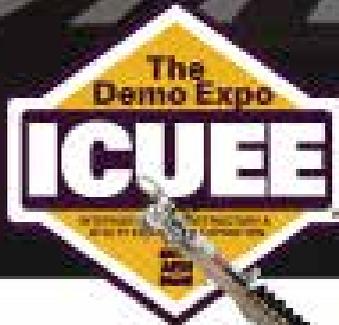
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PRINOTH Reaches Agreement with Kentucky Machinery



PRINOTH is happy to announce its newest dealer agreement with Kentucky Machinery located just outside of Louisville.

A heavy construction vehicle specialist, Kentucky Machinery will sell and lease PRINOTH products for the entire Kentucky state. They were attracted to the PRINOTH brand and its products because they were seeking a high-quality crawler carrier line to carry and were especially looking for rotating dumpers to offer to their own clientele. As such, Kentucky Machinery has already purchased many PANTHER T14R and the first one will be delivered in October at ICUEE.

“We’re thrilled to have found this new dealer in Kentucky,” said Director of Sales for PRINOTH, Doug Little before adding “What’s great is they will be able to participate in ICUEE with us and have their brand new PANTHER T14R on display in our booth and get to know the market for tracked vehicles really well by attending the show with us.”

PRINOTH will be exhibiting at ICUEE in booth N3016 October 3 to 5. Companies who are interested in finding out more about the PRINOTH line-up and on developing a business relationship with us should email Doug Little at growwithprinoth@prinoth.com.

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The Utility Variable-Generation Integration Group Publishes Wind Operating Practices Guidebook

The Utility Variable-Generation Integration Group (UVIG) announced today it has published the Wind Operating Practices Guidebook (OPG). The guidebook is the industry’s first and authored by actual wind turbine and wind plant operating professionals. The OPG is a principle-based document written by UVIG’s Operations & Maintenance User Group. It focuses on principles, processes and best practices; not work instructions and practices.

“Wind in the U.S. has grown to almost 76 gigawatts as of the end of 2016. The ‘care and feeding’ of generation equipment and related components has understandably become a primary topic of concern for wind plant owners and operators,” explained Mark Ahlstrom, UVIG Board President.

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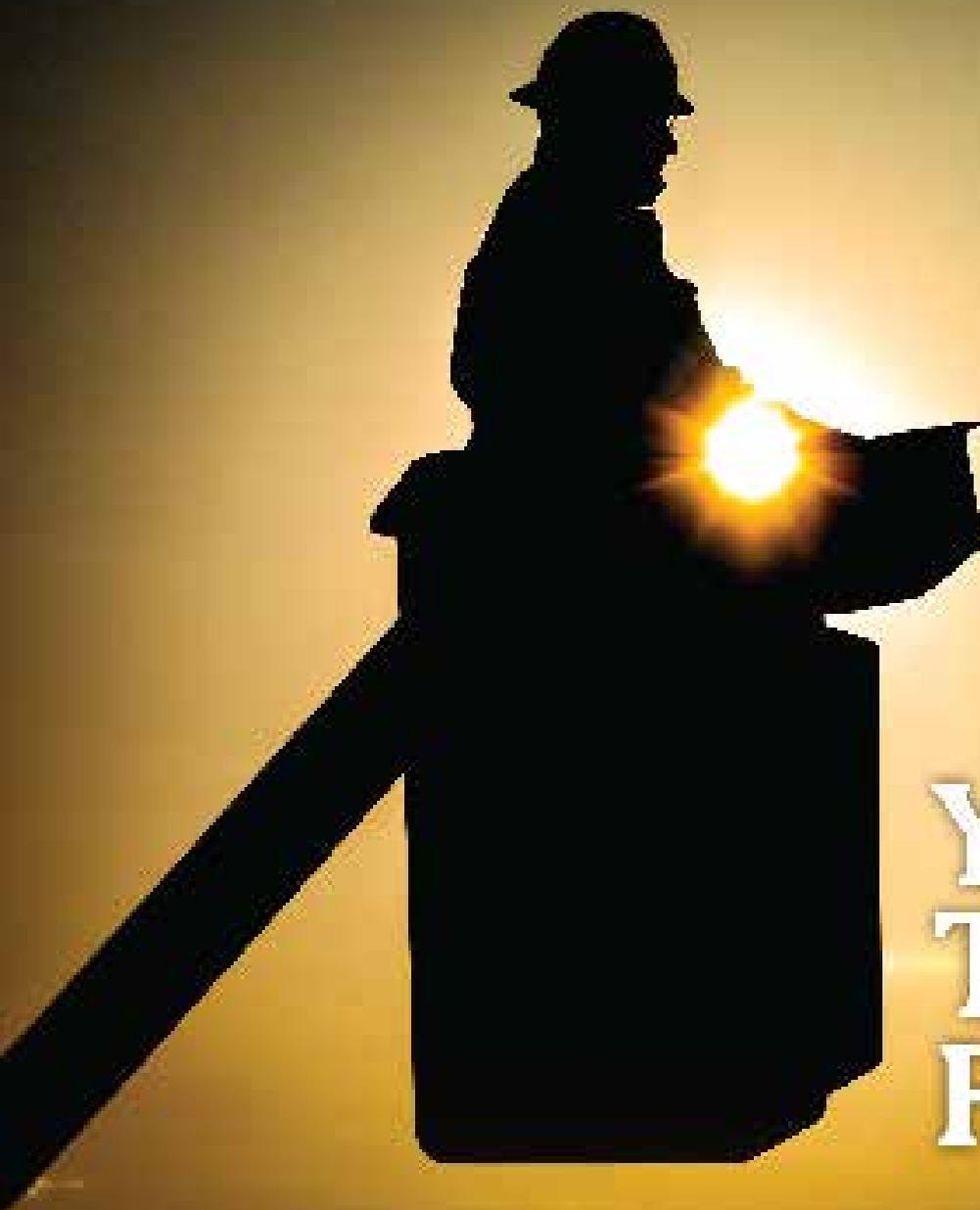


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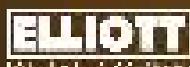
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TUS INDUSTRY NEWS

Utility Equipment Service, Inc. Announces Ownership Change

Utility Equipment Service, Inc., the industry leader in servicing work and utility trucks throughout the southeast, announced an ownership change. Previously owned by Hubert Cheek, the new ownership team is led by William Horton, the President of the company, and Cheek's family members, Carter and Bill. The sale brings new life and excitement to UES, with a vision of continuing with the quality of work that has been done since 1981, while expanding the company's product and service offerings. With Cheek's family staying within the ownership team, the company keeps its strong work ethic and knowledge base of service fleet applications and modifications.

William Horton comes with an extensive background in platform application and manufacturing where he previously served as President/CEO of a company that provided vehicle mounted systems for the military. "Mr. Cheek has created, over the years, a company that is known for their quality of work and the way they genuinely care for their customers," says Horton. "I love how that describes this company and I'm excited to join the family here with so many talented individuals."

Utility Equipment Service, Inc. has serviced work and utility trucks in the southeast region since 1981. From new and used equipment sales to repairing your company's work truck fleet, UES provides multiple services to help your work and utility vehicles stay on the road and onto the next job. For more information on Utility Equipment Service, Inc., please visit www.1ues.com or call 1-800-433-4017.

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An essential tool for electricians to ensure that voltage is not present before working on any electrical equipment or installation connected to the electrical system.

Compliant with IEC 61243-3 Edition 2, the C.A 771 and C.A 773 VAT can be used to work on any 1000V CAT IV installation. They are rated IP65 and offer a Köppen-Geiger type-S extended climatic class for indoor and outdoor use, including weather in extreme conditions.

To meet the requirements of the standards in certain countries, these testers are available in two versions: equipped with IP2X test probes or without. The C.A 771 and C.A 773 have a redundant safety system in the event of power supply faults; the ELV LED flashes when the voltage exceeds 50VAC / 120VDC.

Safety is ensured when testing GFCI and Residual Current Device (RCD) tripping by means of a double control system. Both hands are necessary to press the two buttons simultaneously.

The integrated autotest checks the electrical circuits, power supply, displays and the condition of the measurement leads.

Phase rotation measurement is simple and quick with the 2-wire microprocessor system. Audible and visual continuity testing is provided in compliance with Appendix B of the IEC 61243-3 standard. The tester can also detect stray voltages and offers unipolar phase identification.

Features:

- Full autotest
- Voltage Detection; LED display: $12\text{VAC} \leq U \leq 1000\text{VAC}$; $12\text{VDC} \leq U \leq 1400\text{VDC}$
- Frequency: DC, 16.67 to 800Hz
- Detection of stray voltages
- Unipolar phase detection (a single contact)
- Two-pole phase-sequence testing with 2-wire method
- Continuity test with audible and visual indication ($R < 100\Omega$)
- Complies with EN 61243-3 Ed. 2009 & 2010 & IEC 61010 1000V CATIV

Applications:

- Detection of live and de-energized AC or DC circuits
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- Verify operation of GFCI outlets and breakers

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Klein Tools Enhances Test & Measurement Line with 2 New Voltage Testers

Klein Tools, for professionals since 1857, introduces two new voltage testers that use standard replaceable test leads for added convenience. The ET60 voltage tester requires no batteries as it measures AC/DC voltage up to 600V in electrical circuits, outlets, light fixtures and anywhere else AC/DC voltage testing is required. The ET250 voltage and continuity tester incorporates an LCD display, measures AC/DC voltage up to 600V and can test GFCI protected circuits. Both voltage testers have a tough meter design and are rated CAT IV 600V for safety.

ET60 Electronic AC/DC Voltage Tester

- Measures AC/DC voltages up to 600V
- No battery required, the device is powered by the applied voltage
- Uses standard replaceable test leads for added convenience
- Integrated test-lead holders on back position test leads appropriately for insertion into U.S. electrical outlets
- Tough meter design is water and dust resistant, and can withstand drops up to 9.8 ft. (3m)
- Rated CAT IV 600V for safety
- Modern solid-state, low-impedance design



ET250 Digital AC/DC Voltage and Continuity Tester

- Measures AC/DC voltages up to 600V
- Tests GFCI protected circuits with dedicated test mode
- Uses standard replaceable test leads for added convenience
- Features backlit LCD display for precise readings
- Integrated test-lead holders on back position test-leads appropriately for insertion into U.S. electrical outlets
- Integrated flashlight and backlit display for dim areas
- Automatically powers on and selects the correct measurement mode when a voltage/continuity measurement is attempted
- Tough meter design is water and dust resistant, and can withstand drops up to 9.8 ft. (3m)
- Rated CAT IV 600V for safety
- Modern solid-state design



“We know that many electricians personally own dedicated voltage testers and our research found that more than half of these customers express a preference for digital LCD displays on their testers,” says Sean O’Flaherty, director of product management at Klein Tools. “Knowing this, we decided to enhance our voltage tester line by delivering these new durable, easy-to-read voltage testers that use standard replaceable multimeter test leads instead of the more commonly used dedicated fixed cord sets.”

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Yale Cordage has been proving just how much rope is capable of since it was founded in 1850. A custom and specialty rope manufacturer, Yale Cordage employs leading cordage engineering and technology and high-tech synthetic fibers to create applications-specific ropes. The company's products include utility and low-voltage lines, stringing lines and hand lines, high-voltage lines for live-line work, rigging and climbing lines for industrial engineered heavy lifting slings, and hoses for marine applications.

"We listen closely to what our customers tell us," President Bill Putnam says. "Their needs and applications guide our product development. We continuously ask questions about what our customers are doing and what their safety issues are so we can bring new solutions using the synthetic fibers we work with everyday."

From its facilities in Maine and North Carolina, Yale Cordage continues to develop machinery to process fibers. It regularly invests in new fiber technologies so it can be the first to incorporate them into rope and cable products. One example of this can be found in Yale's award-winning Ultrax 85™ cable. Ultrax 85™ utilizes high-tech fibers to make a double-line stringing cable that is more economical. Featuring a parallel core of Spectra UHMWPE (ultra-high-molecular-weight polyethylene) by Honeywell, Ultrax 85™ combines high strength, light weight, rigidity, and high abrasion resistance in outer materials.

Safety Advantages, Added Benefits

Yale Cordage synthetic products, many of which are eight times lighter and more than two times stronger than steel cable of the same diameter, also offer easier handling and safety advantages that set them apart from wire steel and chains in systems used for pulling and lifting.

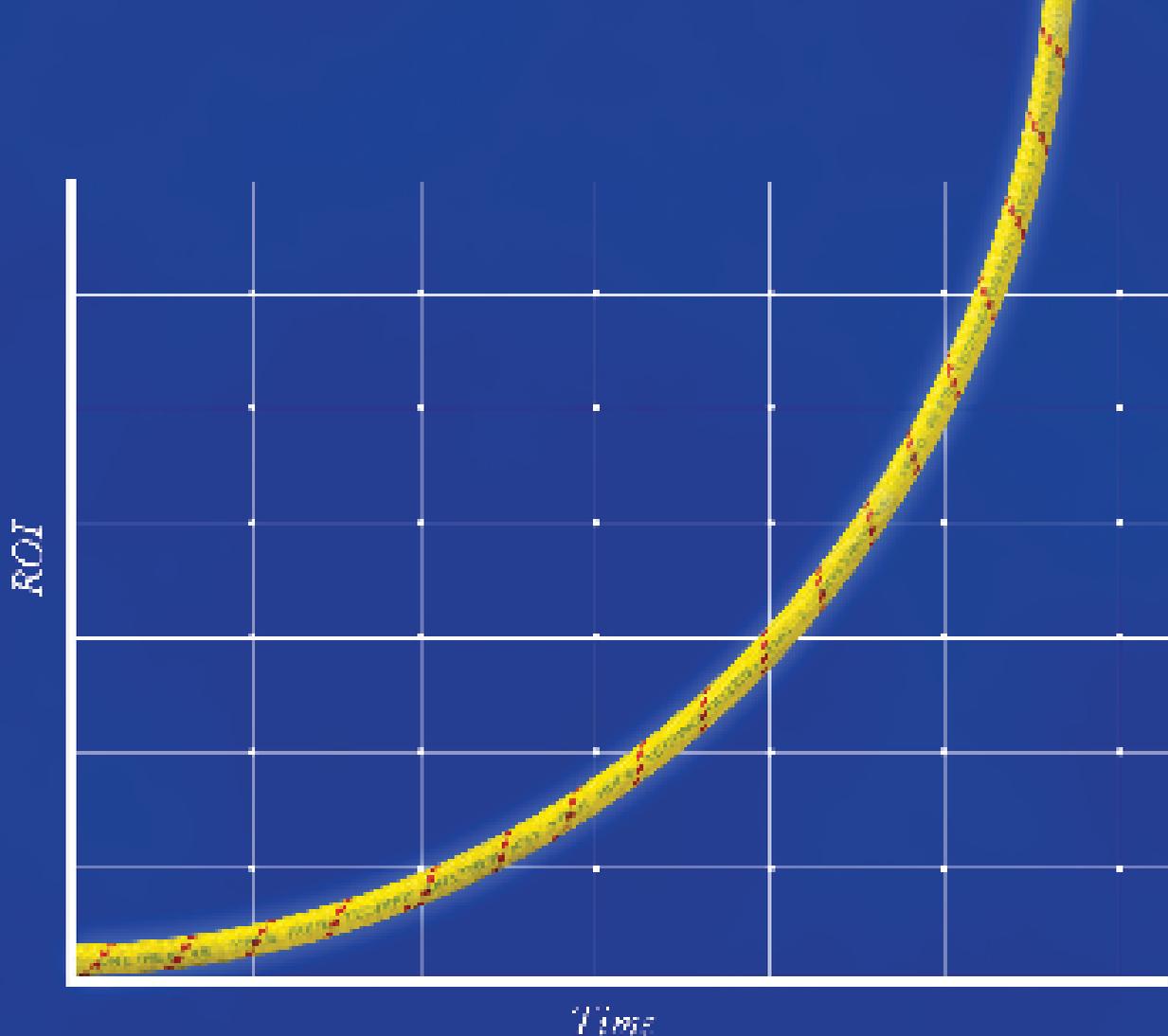
Take Yale Cordage's newest offering, the Funder Sling. This heavy-duty multibeam sling was initially inspired by the need for a lifting rig to push underneath a load on the ground. Because Funder Slings are so much lighter than their wire counterparts, they're naturally easier to rig; one or two workers can now complete the task in just minutes. As an added benefit, the sling protects workers from hazardous broken wire strands, sharp edges, buckling and jugging the



may be found in a wire component and when left outdoors it won't absorb water, freeze or rust.

In the mining industry, Yale Cordage has also been able to address a variety of problems faced in underground operations. Traditionally, the mining industry relied on wire, which is prone to rust and can develop fishhooks and kinks. Bob's Eye Ultrax is a specially designed product for underground mining. This rope keeps the high strength of Ultrax and adds a reflective component to a low light to be seen in the conditions unique to underground mining. The Honeywell Spectra® fiber has been demonstrated to have better abrasion resistance, and Yale's special construction techniques maximize those characteristics. Ultrax is a 18-strand single braid of Spectra® fiber enhanced with Yale's Max-Jacket HP coating, supplying superior abrasion resistance. Ultrax's braid angles and twist level are designed to optimize break strength and keep stretch low. Spectra® is the most forgiving high-modulus fiber, giving better sheave-cycling capabilities than other high-tech fibers.

On plans to explore new opportunities in the electric utility industry, Putnam says, "We have always embraced new fiber technologies and have been the first manufacturer to incorporate them into rope and cable products when they provide the best value and performance to the customer."



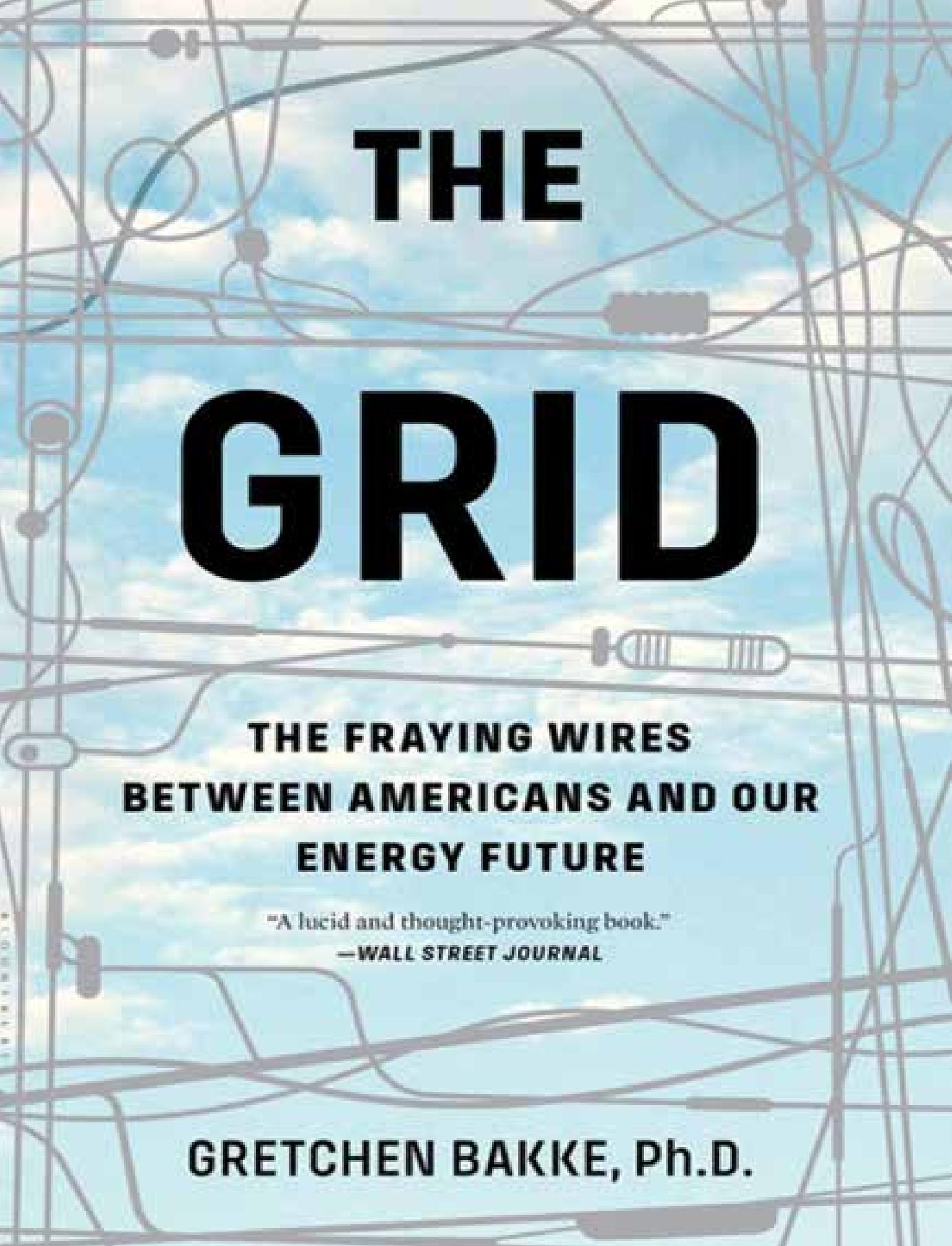
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GRETCHEN BAKKE, Ph.D.

Terex to Host Author of *The Grid* at ICUEE 2017



Terex Utilities announces that it will sponsor a presentation by Gretchen Bakke, author of *The Grid: The Fraying Wires Between Americans and our Energy Future*, during the International Construction & Utility Equipment Expo (ICUEE).

Bakke, a cultural anthropologist and assistant professor of anthropology at McGill University in Montreal, Quebec, will discuss *Diversity in the Grid*. Her book takes on America's electrical grid, an engineering triumph of the 20th century, but which she purports needs some fine tuning to fit the present. As the industry invests in solar, wind, and other alternatives, the grid is what stands most firmly in the way of a brighter energy future. She calls for America to re-imagine the grid according to 21st century values.

"We are pleased to bring Ms. Bakke to speak at ICUEE. Her perspective

on the diversification of the electrical utility industry, its impact on distribution channels, and the devaluation of energy revenue streams is a wake-up call for electric utilities, one that all organizations working in this industry can learn from," said Joe Caywood, Director of Marketing.

Bakke will speak during a luncheon, sponsored by Terex Utilities, on Wednesday, Oct. 4. The presentation is open to all registered ICUEE attendees, but space is limited. Learn more and register here:

http://icuee17.mapyourshow.com/7_0/sessions/session-details.cfm?ScheduleID=58

Or go to ICUEE.com, click on Visit then select Education to be directed to a registration link.

Following the lunch she will be available for a book signing at Association of Equipment Manufacturers (AEM) booth 3340. Afterwards, she will then visit the Terex display at L316 to meet customers.

The *Grid* drew praise from Bill Gates, *The Wall Street Journal*, *Science*, and others. "Even if you have never given a moment's thought to how electricity reaches your outlets, I think this book would convince you that the electrical grid is one of the greatest engineering wonders of the modern world. I think you would also come

to see why modernizing the grid is so complex and so critical for building our clean-energy future," said Bill Gates.

"Utilities today face demanding internal customers and demanding external customers. Beyond delivering innovative technology and responsive service, Terex is committed to sharing forward-thinking ideas and examples of success stories for the benefit of the industry," said Caywood.

In addition to the presentation by Gretchen Bakke, Terex Utilities will participate in two education sessions at the co-located Utility Fleet Conference. Caywood will participate as a panelist for a discussion on Monday, Oct. 2 on "Top Trends Impacting Utility Fleet Operations." On Tuesday, Oct. 3, Dan Brenden, Director of Engineering, with Florida Power & Light's Joe Suarez, will present a case study on "Using Technology to Alert Users to Overload in Aerial Platforms." Additional registration required. Visit www.utilityfleetconference.com for info.

For more info about Terex Utilities products and events scheduled for ICUEE, visit <http://info.terex.com/icuee2017>.

www.info.terex.com/icuee2017 •

Power Utility Replaces Aging Transformers with Customized, Drop-in Units

New-generation power transformers at Avista's Kettle Falls plant demonstrate the benefits of acquiring replacement units that fit existing footprints and connections.

As power transformers at generation facilities near end-of-life cycles, a number of potentially dangerous events can come into play – in addition to untimely power outages and costly repairs.

Because many transformers are exposed to dust and high operating temperatures, over time they incur such problems as clogged air inlets, clogged cooling ducts, and deterioration of winding insulation, all of which can degrade capacity. If a transformer is operating under such conditions - particularly operating at or above its rated load - unexpected outages can occur.

Among the more catastrophic of those events are explosions, fires and meltdowns that result in immediate outages, plus risk of worker safety, fines, security lapses and community ire. Occasionally, such events occur because of failure of the transformer lightning arrester, or an inadequate fire protection system.

More often, problems due to end of life cycles for high-voltage transformers stem from transient overvoltage switching surges or surges due to degraded insulation of coil windings.

“Insulation breakdown often results due to high heat, which is one of the biggest enemies of power transformers, as well as over voltage and high current loads above the rated values,” says Alan Ober, Vice President Engineering and Manufacturing at transformer manufacturer and service provider ELSCO (Cincinnati, OH). “Over a 20-year period insulation can deteriorate to the point where the coil windings are exposed to moisture, dust - which leads to tracking, flashover to ground of the winding turns, and resulting short circuits.”

Such was the case at Avista Corporation's Kettle Falls Generating Station in northeastern Washington State. Built in 1983, the Kettle Falls plant was the first utility-owned electric generating station of its kind in the

U.S. constructed for the sole purpose of producing electricity from wood waste, or biomass, making it a major contributor to Avista becoming one of the greenest utilities in the country.

The Kettle Falls 60 MW (megawatt) station utilizes a variety of wet-type transformers for its power transmission functions, but also uses four dry-type transformers inside their plants to run motors for pumps, evaporators, pollution control systems, and clean air filtration systems.

It is these four transformers, enclosed in a dedicated room with switchgear, which came into question in 2015 during the station's annual preventive maintenance outage. The insulation of the four transformers, each of them 35 years old, had already deteriorated to a concerning degree.

The power station decided to replace two of the units immediately, and replace the other two in the next year. Yet, there were concerns about being able to find a replacement manufacturer who could provide the Kettle Falls facility with units that were essentially identical with their aging ones, that would drop right into the same footprint and also hook up to the switchgear via the same connections, without requiring significant modifications.

After researching several prominent manufacturers the utility's team decided on Electric Service Company (ELSCO) to design and build the replacement units as





well as provide for any modifications that could enhance service life or performance.

Founded in 1912 by former Westinghouse engineers, ELSCO specializes in providing quality new, repaired and rebuilt transformers ratings range from 500 through 3750 kVA in 2.5, 5 and 15kV primary voltages, including both liquid-filled and dry-type models.

Tailoring a neat fit

One of the major reasons the Kettle Falls station team chose this manufacturer was because of its abilities to design and build replacement transformers for older or

outdated units, which often requires a certain amount of customization to fit the space available.

“Tailoring the new transformer to fit the existing space not only facilitates successful installation, but also ensures that the new transformer will integrate directly with existing switchgear,” Ober explains.

Nathan Sarber, General Forman of the Kettle Falls facility explains that not only was matching a tight transformer footprint a challenge, but also getting the replacement units in place was a strenuous task.

“These are 10,000-lb. transformers that are located in a room inside of a building, so we had to make sure

we dealt with a transformer manufacturer who would be able to help us with the footprint, installation and connection requirements," he says.

Sarber worked directly with ELSCO's Ober to ensure that the dimensions of the new units would not only meet the existing transformer specs, but would also facilitate the installation requirements of fitting through the transformer room and having compatibility with the existing switchgear connections.

Although Ober's engineers often travel to a customer's site to evaluate the need for transformer service or replacement, much of the validation of the replacement units' dimensions is performed with drawings and photographs. A site visit is particularly valuable when there are no references available for the original equipment.

"Using this process he was also able to match up exactly the measurements for the dimensions of where our bus



connects onto our low voltage control center, so we were able to basically replicate the original connections from the new transformer," Sarber says. "As a result, the footprint stayed exactly the same as it was with the original equipment. This was important, because we didn't have any room to spare."

Although the new units were dimensionally identical to the original ones, ELSCO recommended and provided

some upgrades for all four replacements. Instead of installing aluminum windings and connections, the manufacturer suggested that copper be used.

"Copper provides greater conductivity and longevity, with fewer chances of poor electrical connections," Sarber says. "Also, in the old days they used to manufacture transformers that were somewhat oversized in terms of capacity and durability. Today, with tighter profit margins, if you want a 1500 kVA transformer, that's exactly what you will get. You won't have the ability to overload it without the risk of a breakdown. So, now the quality of transformers is especially important –

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including windings and connections.”

Upgrading the solution

The Kettle Falls station engineers also accepted ELSCO’s recommendation to upgrade the new transformer enclosures. “The old enclosures had inlets and outlets that were basically wide open near the top and bottom of each unit, except for arc-flash screening,” explains Ober. “There was the potential that if a transformer would fail and go through a meltdown, the aluminum or copper of the windings could be thrown or splatter onto nearby equipment or personnel.”

The enclosures were upgraded to NEMA Type- 2 indoor specifications that feature drip-proof ventilation louvers instead of slots, which would prevent any dripping water from entering the transformer. Also, if an arc flash or meltdown were to occur, any molten aluminum or copper would be directed downward, providing a measure of added safety for personnel and surrounding equipment.

Sarber adds that this project of replacing four aging transformers with new, drop-in units was a first for the plant. However, due to the lower cost and overall ease of the process, he intends to continue replacing aging transformers at the Kettle Falls Power Generation Station in this manner.



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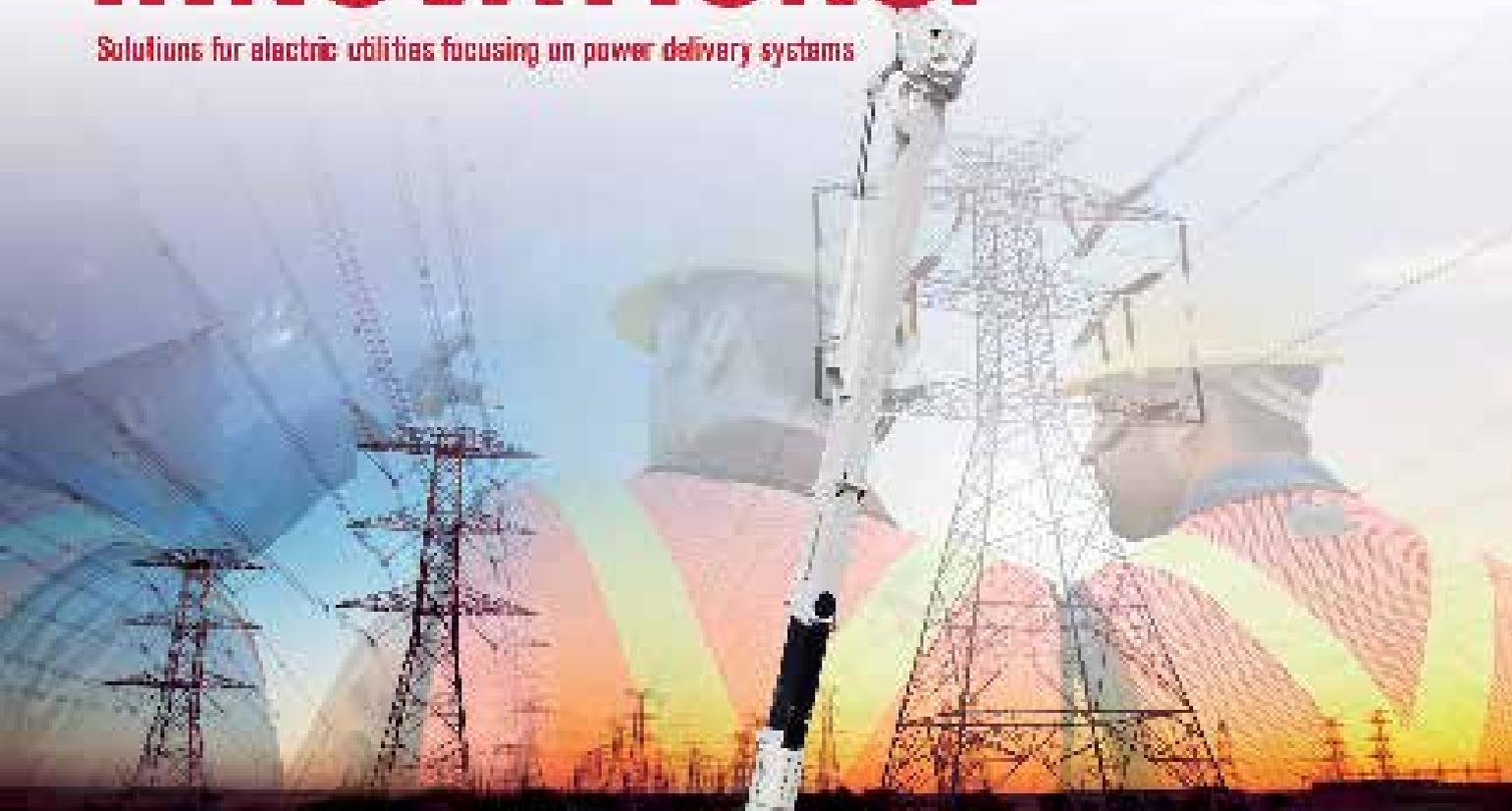
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The convenience of wheel-mounted equipment makes trucks and trailers ideal for over-the-road transport, but they are rendered useless by a utility installation or maintenance job in compromised ground conditions. Rubber track carriers, on the other hand, get people and equipment to utility applications in places wheeled carriers cannot go, such as jobs on soft wet ground or undeveloped or protected environments. The track carrier spreads the load over a large surface area, lowering ground pressure while providing a highly stable equipment platform to work from.

While most manufacturers have designed their track carriers from snow grooming machines, Morooka designed its carriers specifically for heavy-duty use in rigorous agriculture, forestry and construction applications from the bottom up. That same industry-specific dedication is at the core of Morooka USA LLC, headquartered in Ashland, Virginia, since 2005. Morooka is the only manufacturer of rubber track carriers wholly made in America, with models designed and built specifically for use in North American applications.

Now Morooka has added a rubber track carrier line dedicated to the North American utilities industry.

Ken Byrd, president of Morooka USA said the company is always looking at how to meet the unique needs of end-users. "We had looked at what our construction models were doing for the U.S. oil and gas industry. So much of that work is installing pipeline infrastructure in remote, undeveloped, hard-to-access areas. We realized the same was true for the utilities industry. Electrical transmission and distribution lines are often in those same types of environments. Our construction models could be retrofitted to meet most of their needs, and there are other manufacturers that do exactly that. But Morooka has always matched its models to the job."

That's why five years ago Morooka USA began working with North American utilities customers to create a dedicated line of Tier 4-compliant carriers, the VDL-series. Morooka has six models currently available and another being introduced at



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ICUEE later this fall, the MST4500VDL. “We are committed to the utilities industry. We’ve pushed the limits of what carriers can do for them with the 125-foot bucket reach of the 4500VDL. To be able to go off road in any environment at that size and price point – one client has already told me it’s a real game-changer for them.”

Utilities-specific

The VDL models have the same robust design of Morooka’s construction carrier models, and like them, are made from U.S. steel, by U.S. personnel with U.S.-based customer support. Beyond that, Byrd said, the carriers differ in several key ways.

“One of the primary differences is engine placement,” Byrd said. “Construction models have center-frame mounted engines, but utilities companies attach digger derricks and bucket lifts to the carriers. They need room to mount the masts and to lay them down for ease of transport. We keep the center well freed up by offsetting the engine.” Byrd noted that the open center well has also been advantageous for attaching personnel carriers and hydro-seeders.

Another major change has been accommodating attach-

ments common to the utilities industry that require extended frames. “Again, it’s because our design and manufacturing facilities are right here in the U.S. Our frames are built right here, so it’s easy for us to customize them to North American equipment specifications. We don’t have to piece on an extension to an existing frame. We simply build one solid frame to whatever the specs call for.” The built-to-spec frame eliminates any concern for overstressing a weld at the extension, since there is no extension welded on. “Our frames are solid.”

Curt Unger, Morooka USA Vice President of Sales, said the ability to build to spec has additional benefits. One is mobilization readiness. Most of the VDL models meet the DOT-approved width of 8 feet 6 inches for permit-free transportation. “Utility companies might need to respond immediately at any time,” Unger said. “When they get called out because a snowstorm Friday evening took down a distribution line, they can’t be held up waiting through the weekend to get a permit. With our carriers, they just go.”

Byrd said, “We manufacture a good share of our utilities models as OEM proprietary designs,” Byrd said. “We’ll custom-design and build to the dimensions they specify.” Customization is made easier by the new carrier line’s mounting



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frames, which duplicate the mounting frame of a wheeled carrier to easily accept digger derricks and lift buckets without special adaptation. "Other makes of carrier need a sub frame," Byrd said. "Ours does not. One of our OEM clients told me this has been saving installers about 40 to 50 hours of build-time per unit. Fewer man-hours and lower material cost represent a huge savings on every Morooka carrier installation."

Morooka tough

Unger said reliability is critical to utilities applications. "Your track carriers will get you to places that wheeled vehicles just can't go – so that much farther from help if you need it. Take the snowstorm scenario again as an example. You need to get your equipment out there on a weekend, and you need to trust that it won't let you down once you're there."

Unger said that's why Morooka carriers make such good vehicles for the utilities industry. The line of carriers shares the robust build of all Morooka lines. One key area is tread and carriage. The aggressive, straight bar tread pattern favored by the construction and oil and gas industries gives utilities customers the same benefits: increased traction, reduced tearing and wide ground pressure disbursement to track easily over muddy or sandy soils.

"That's one of the most common concerns I hear about rubber track carriers, tread life," Unger said. "How does rubber hold up? But all our tracks were made specifically for long life under rigorous use." Morooka tracks feature its Continuous Steel Core technology. Their helically wound steel cords have no inside joints to fail. The one-piece design also prevents stretching and derailing. "CSC eliminates about 95 percent of the traditional causes of rubber track failure," Unger said.

"Our treads also have a greater number of contact points than other makes." Greater contact with the ground, Unger said, lowers ground pressure, placing less stress on any given contact point with the treads and contributing to a longer service life. "Overall our units average ground pressure is less than a man's footprint."

The footprint of the average human male exerts a ground pressure of about 8.0 psi. The MST1500VDL model with 225 hp Tier 4 Cat engine exerts a ground pressure of only 2.6 psi, though the unit is 23 feet 8 inches long with a width of 8 feet 6 inches and weighs 21,660 pounds. Fully loaded to its 20,000 pound maximum capacity, its ground pressure is only 5.0 psi.

The largest of the 8 foot 6 inch wide Morooka models to date is the MST2500VDL with 250 hp Tier 4 Cat engine. At 27 feet 6 inches long, it weighs 29,000 pounds and exerts a ground pressure of 2.6 psi. With a 30,460-pound maximum load, its ground pressure is still just 5.1 psi.

Morooka carriers are easy to maintain, and excellent parts availability minimizes downtime for service and repair. All engines for the North American market feature top brand-name, Tier 4 engines from Cummins, Cat and Kubota. "And the fuel tanks, the cabs, the frames – 95 percent of everything on our carriers is made right here in the U.S., so we have excellent in-stock availability of the most commonly needed parts, with total parts availability for our carriers rated at about 88 percent at any given time."

Operator safety and comfort surpass standards for the North American market. Units feature ROPS-certified frames and cabins, Danfoss® joystick controls and easy-to-read digital display, backup cameras, and heated remote mirrors.

Morooka USA rubber track carriers have hydrostatic transmissions and come with a one year, 1,000-hour warranty. Morooka's industry-leading dealer, parts and service network ensures coast-to-coast after-sales product support throughout North America. The new line of purpose-built machines gives utilities end-users a rubber track carrier dedicated to the unique work they do that they can count on wherever and whenever they need to do it.



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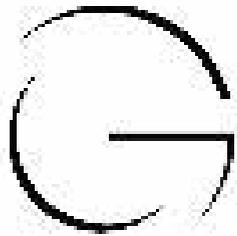


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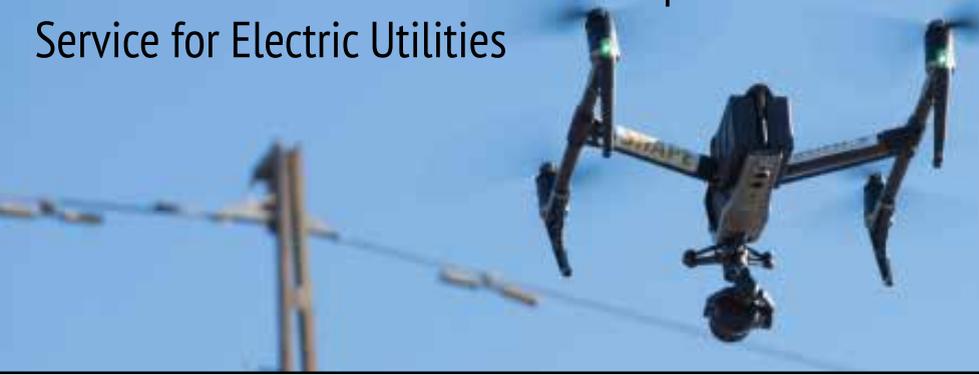


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Sharper Shape Announces the First Commercial Drone Based Automatic Detailed Inspection Service for Electric Utilities



New fully automated inspection and data analytical service remarkably increases the safety, speed and efficiency of performing close-up visual inspections of electric utility assets

Sharper Shape Inc. has announced this week that their new Automatic Detail Inspection (ADI) service has successfully completed field trials and is now available for immediate commercial use by electric utilities. The ADI service is available as a complete end-to-end inspection package, or companies can use their own aircraft and personnel, utilizing Sharper Shape's ADI "Drone Software as A Service"™ technologies to maximize the efficiency of in-house unmanned aerial operations. The company expects their Automatic Detailed Inspection service to be rapidly adopted by major US as well as international utilities due to system's ability to largely automate the entire process ranging from using drones for close inspection of critical infrastructure components up to defect recognition.

Sharper Shape's Automatic Detailed Inspection service takes full advantage of the outstanding capabilities of the current generation of small commercial unmanned aircraft. To begin the process, Sharper Shape's ADI Flight Planner software automatically creates accurate 3D models of powerlines using LiDAR data of the system. The ADI Flight Planner software uses this geospatial data to create optimized routes for automatically inspecting utility assets. High performance DJI commercial drones autonomously follow these automatically created flight paths to capture images of insulators, wire connections and other critical components at close range and from multiple angles. Finally, these images are uploaded under software control to the Sharper Shape cloud-based Inspector application. This purpose-built

application provides an ideal platform for utility personnel to review field data, and post-flight analysis is further accelerated with several artificial intelligence tools.

"Our new ADI service really minimizes the effort required to capture all the data needed to completely analyze the health of a utility system and to target the problem areas," says Paul Frey, Sharper Shape's VP of sales. "UAS field crews can get a lot more done each day, with much more predictable and repeatable results."

According to Ilkka Hiidenheimo, Sharper Shape's CEO: "With our new ADI service, not only are we automating the drone field operations, but we are also providing a complete post-flight software environment for performing intelligent computer-assisted analysis of the massive amount of data captured during each flight."

Hiidenheimo provided insight into the future: "After the uplift of the beyond visual line of sight drone based flying regulation in the US we will be able to maximize the potential of the service, the same way we already do in Finland."

Advantages of ADI vs. traditional inspections done by helicopters or by foot patrol

- Increased safety by keeping the pilots and crew on the ground
- In comparison to helicopter data acquisition higher quality data and data from below the assets
- A much lower price point

- More environmentally friendly

Advantages of ADI vs. traditional manually flown drone utility inspections include:

- Inspection time is reduced from 10-20 minutes per structure for manual flight control to 1-2 minutes using ADI.
- ADI delivers more repeatable and higher quality inspection results
- Far less stress is put on ADI field crews, resulting in reduced mental & physical fatigue
- ADI minimizes risk - even less skilled pilots can safely produce top quality inspection work
- All ADI data is automatically uploaded to the Sharper Inspector software platform, which provides an optimized environment for manual examination of inspection data, as well as providing an environment for automating certain inspection tasks through intelligent software plug-ins

Even though Sharper Shape's ADI service is initially being targeted for use in the electric transmission and distribution markets, the company is working on introducing the applications into a much wider range of industrial inspection applications. Says Sharper Shape's Hiidenheimo: "There really is no reason our automatic flight operations and inspection software can't be equally effective when working on cell phone towers, wind turbines, or many other critical industrial assets."

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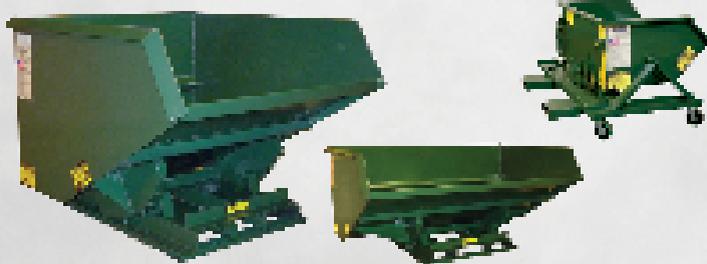
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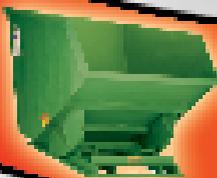
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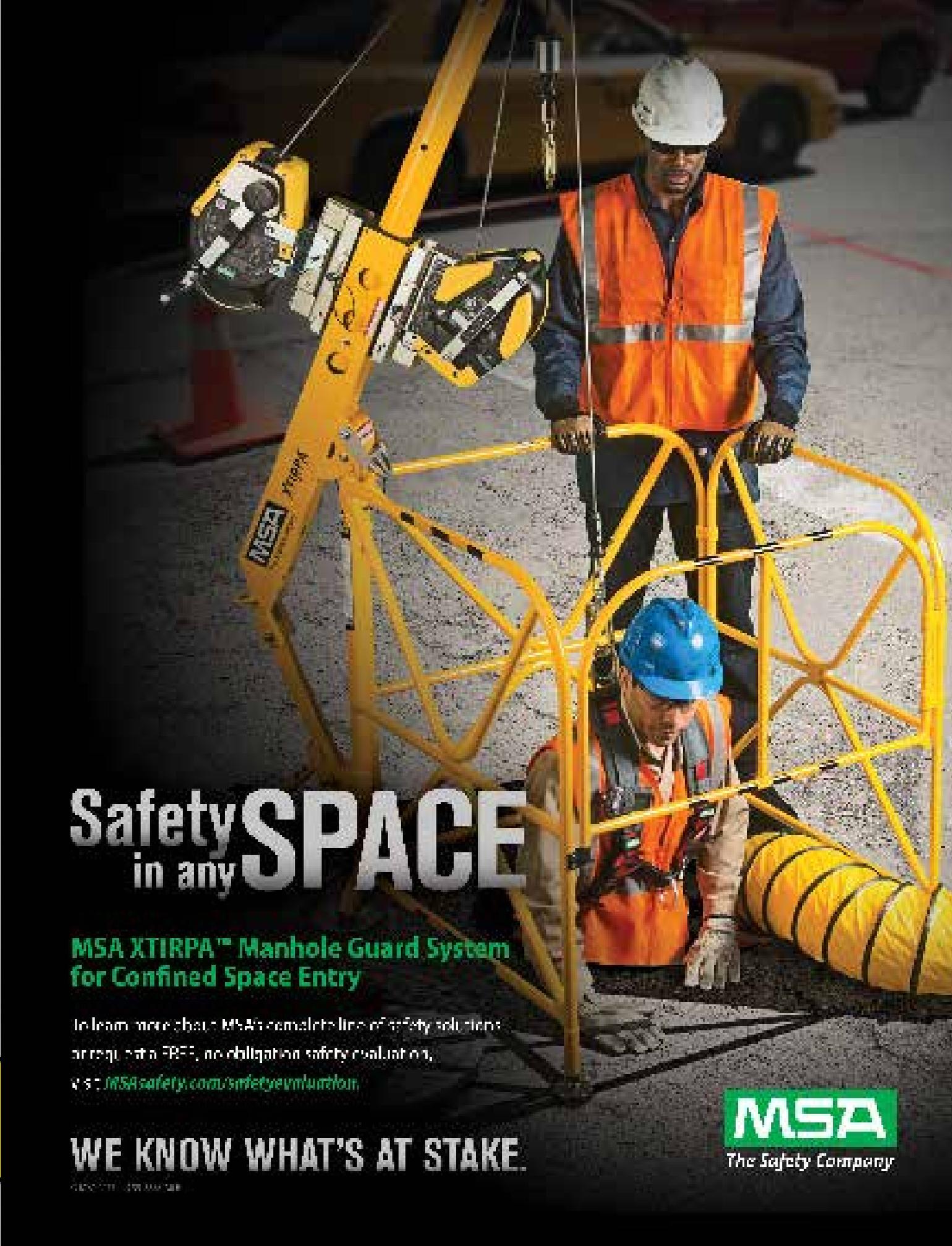
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Sherman + Reilly Launches In-Stock Equipment Viewing



Sherman + Reilly, Inc., a Textron Inc. company, a leading manufacturer of power line stringing and installation equipment, launched a new online site allowing customers to browse ready-to-ship equipment.

With the click of a button, the company’s experienced sales team will be ready to assist with the final purchase and answer any product specific questions, providing customers fast access to the equipment they need to complete the job.

“We are excited to be expanding our digital footprint to provide customers the information they are looking for,” said Jim Zima, General Manager, Sherman + Reilly. “We continue to garner feedback to improve our customer experience and this is the latest example of that commitment.”

Sherman + Reilly equipment is designed for underground and aerial transmission, and distribution of electrical power and communications systems. The company will update in-stock equipment, providing data on the products available.

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Felling Trailers New X-Force Hydraulic Detachable Gooseneck Offers “Super Low” Deck Height



Felling Trailers, Inc.’s, X-Force Hydraulic Detachable Gooseneck model line now offers a “Super Low” deck height with the X-Force SL Series. The X-Force SL Series provides an 18” usable level deck height with a 6” ground clearance, making it an ideal spec for Carriers that specialize in extra-tall cargo/equipment transport. The low loaded deck height is ideal for a multitude of applications due to the full width level deck as opposed to a drop-side model. Felling Trailers designed and engineered the SL Series with versatility and functionality in mind knowing that with changing markets, Carrier’s cargo/equipment loads vary. The versatility offered with the 18” usable level deck height allows a carrier to transport cargo/equipment as asphalt milling machines, paving equipment, track excavators, etc. that have tall transport heights, ultimately keeping the Carrier’s wheels and payday rolling.

The SL Series are offered in four capacities; XF-70-2 HDG-SL (35 ton capacity), XF-100-3 HDG-SL (50 ton capacity), XF-110-3 HDG-SL (55 ton capacity), and XF-120-3 HDG-SL (60 ton capacity).

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Cree Announces Next Generation of LED Bulbs

Cree, Inc. announces a completely new portfolio of next generation LED bulbs aimed at delivering better light experiences for consumers. The new bulb portfolio consists of 25 new products, offering better light quality, better dimming, better lifetime, better warranty and better pricing to deliver on the true promise of LED technology to make lighting better than it was before.



“Cree is committed to innovation and unlocking the true potential of LED technology,” said Betty Noonan, Cree chief marketing officer and general manager, consumer lighting. “Many new LED products fail to live up to the promise of LED technology; shouldn’t you choose a better bulb when it will live in your house for decades? Cree believes it’s now more important than ever to give consumers a better choice.”

“The Home Depot continues to offer the latest innovations in LED lighting, as can be seen with this new portfolio of Cree® LED bulbs. Our customers are looking for a high quality LED lighting experience that combines the latest technology with the benefits of energy savings and durability LEDs are known for,” said Joey Corona, Merchant, The Home Depot.

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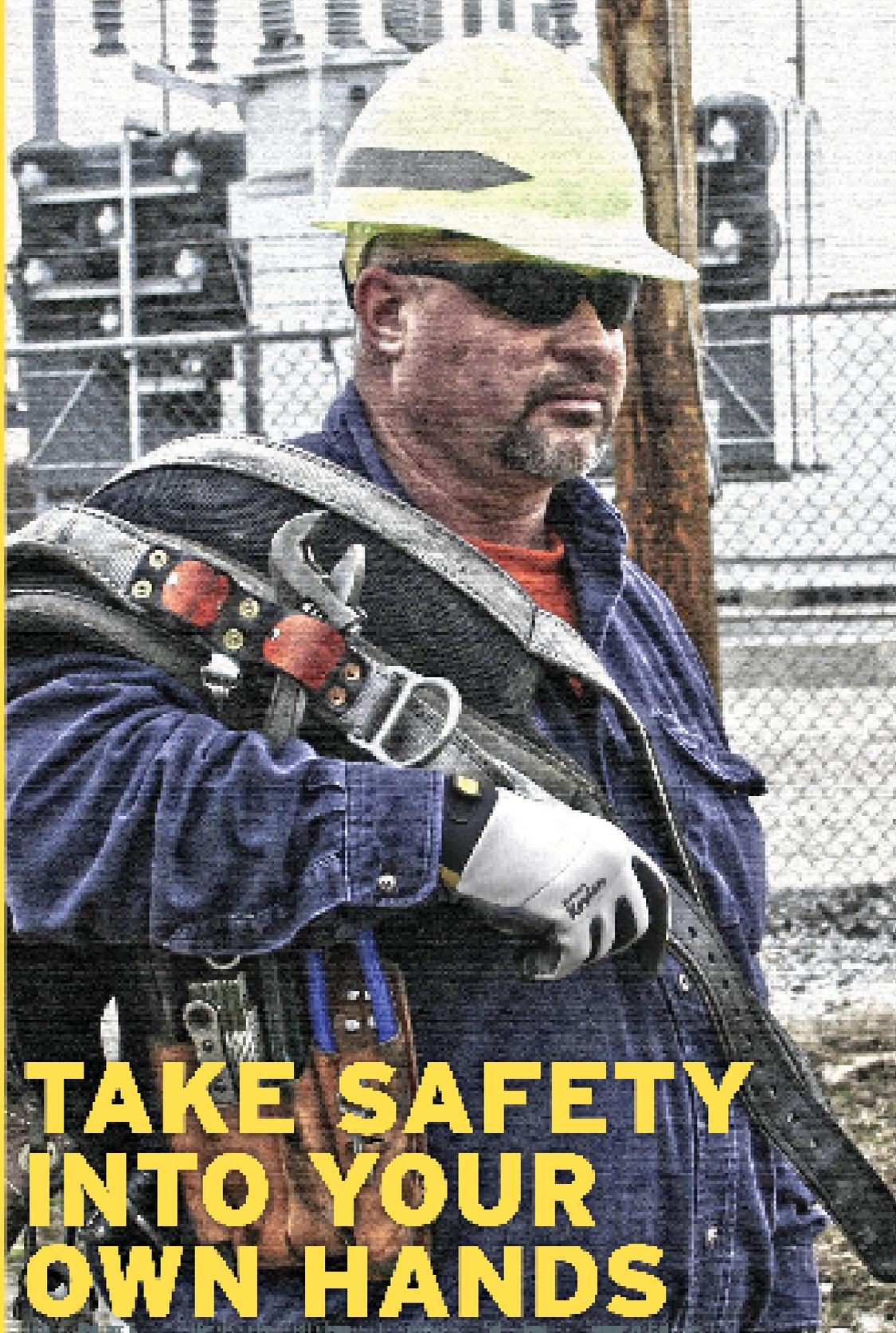
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