

# SPEC MY TRUCK

Check out Joe Powers' rig, page 16

INSIDE

2018 WORK TRUCK SHOW PREVIEW .....	12
Scanning strategies revealed .....	18
NAFTA: Will trade deal go trucking? .....	22



SUBSCRIBE TODAY

6 Issues per year  
only \$36<sup>00</sup>

<http://www.servicetruckmagazine.com/subscribe>

# Service Truck

THE MAGAZINE FOR MOBILE REPAIR AND MAINTENANCE

Volume 5 Issue 1

JANUARY/FEBRUARY 2018 \$8.00

## HAPPY NEW YEAR

# What's in store for 2018?

A strong 2017 has industry insiders expecting good things in 2018 — with a few caveats

SAUL CERNOS

Image by ssusa026/iStockphoto.com

With 2017 entering the history books, commodity prices remained low, currencies were relatively stable, and housing markets and overall growth were strengthening. Never mind that this has happened during the first year of one of the most controversial U.S. presidencies ever — there's a strong sense that, ups and downs aside, it's mostly business as usual. What, then, might be in store for the service truck sector in 2018? We asked industry insiders for their sense of things:

Based in Virgil Illinois, near Chicago, Sauber Mfg. Co. produces flatbed trucks, fiberglass service bodies, aerial lift equipment and step vans for utilities, municipalities and other customers in the Chicagoland area and neighbouring states.

"Our truck equipment sales went up and we have a lot of active quotes," said marketing manager



As the future rushes ahead, those in the truck equipment business are ready for whatever 2018 brings.

continued on page 8

## TRUCK WALK-AROUND

# Make the most of inspections

Petrocon president Joseph Giovinazzo outlines the finer points of inspections and maintenance

MATT JONES

Regular inspections and maintenance of equipment is crucial for the success of a heavy equipment business.

Down time means reduced productivity, which means less money coming in, says Joseph Giovinazzo, president of lubricants wholesaler Petrocon Corporation.

"We started doing presentations on lubrication and lubricants being the lifeblood of the machine," said Giovinazzo, who gave a presentation on the subject earlier this year at the triennial ConExpo-Con/Agg heavy equipment

continued on page 7



Regular inspections of heavy equipment are crucial to business success, says lubricants wholesaler president.

Photo by kzeron/iStockphotos.com

## WORK TRUCK SHOW PREVIEW

# Building a workforce skilled for tomorrow

Work Truck Show educational session explores the challenges and solutions

ERIN GOLDEN

Like many people involved in equipment manufacturing, Bill Gaines has found plenty of evidence that jobs frequently outnumber workers qualified to do them.

The chairman and senior engineer at Transfer Flow Inc., a Chico, Calif.-based aftermarket fuel tank system maker, Gaines said he's been searching for a press brake operator for a full three years. He's had no luck, and he's got a good hunch about one of the reasons it's such a struggle: the opportunities for someone to learn the trade are few and far between.

"You want to know how many high schools here are teaching to program, or even have a press brake?" Gaines said. "Not one. Not one high school and not one of the four community colleges have a CNC (computer numerical control) press brake."

continued on page 10



Students taking part in the Let's Grow (STEAM)x Youth College and Career Expo this November in Columbus, Ga., check out the mobile classroom of the Visionary Center for Sustainable Communities. The classroom will be a new attraction at the Work Truck Show in Indianapolis in early March.

Photo courtesy of the Visionary Center for Sustainable Communities

Publications Mail Agreement #40050172 Customer #4956370  
RETURN UNDELIVERABLE CANADIAN ADDRESSES TO  
4623 William Head Rd. Victoria BC V9C 3Y7 email: [info@servicetruckmagazine.com](mailto:info@servicetruckmagazine.com)

CELEBRATING  
INNOVATION  
FOR 60 Years

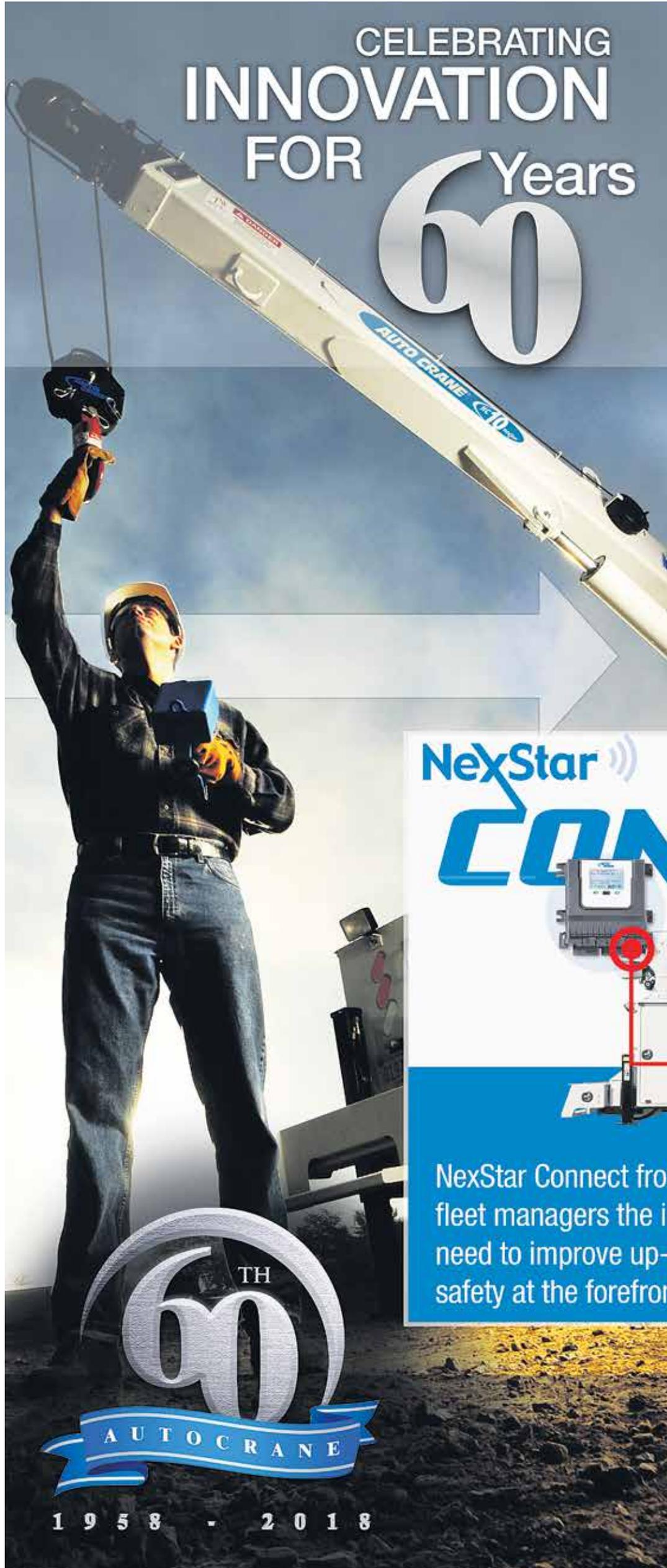


NOW INTRODUCING THE NEXT  
NEW INNOVATION  
from AUTO CRANE

NexStar  
**CONNECT**



NexStar Connect from Auto Crane gives fleet managers the information they need to improve up-time and keep safety at the forefront of crane use.



1958 - 2018



www.autocrane.com

# Service Truck

THE MAGAZINE FOR MOBILE HEAVY DUTY REPAIR AND MAINTENANCE

www.servicetruckmagazine.com

**Editor** - Keith Norbury • editor@servicetruckmagazine.com

**Advertising Sales** - Nick Moss, Marketing Manager • 250-588-2195 or 250-478-1981 • ads@servicetruckmagazine.com

**Art Direction/Production** - James S. Lewis • james@capamara.com

**Publisher** - Tom Henry • publisher@servicetruckmagazine.com

**Regular Contributors** - Dan Anderson, Saul Chernos, Nelson Dewey, Erin Golden, Matt Jones, Mark Yontz

**Subscriptions** info@servicetruckmagazine.com  
Toll free 1-866-260-7985 • Fax +1.250.478.3979  
www.servicetruckmagazine.com

Service Truck Magazine is published six times a year by Southern Tip Publishing Inc. Subscription rate for six issues: \$36.00. Single copy price: \$8.00. Contents copyrighted by Southern Tip Publishing Inc. and may be reprinted only with permission. PRINTED IN CANADA  
Postage paid at Vancouver, BC

ISSN 2368-4615

**US mailing address:**

Service Truck Magazine 815 1st Avenue, #93, Seattle, WA, 98104

**Canadian mailing address:**

Service Truck Magazine, 4623 William Head Road, Victoria, BC V9C 3Y7

Your privacy is important to us. Occasionally we make our subscriber list available to reputable companies whose products or services might be of interest to our readers. If you would prefer to have your name removed from this list, please call 1-866-260-7985, fax: 250-478-3979 or write us at Service Truck Magazine, 4623 William Head Road, Victoria, BC V9C 3Y7 or email us at info@Service Truck Magazine.com

**Next Advertising Deadline: Feb. 14, 2018**

Don't miss the opportunity to be part of this exciting new industry publication. For more information, or to reserve space in the next issue, call Nick at our Advertising Department - +1-250-588-2195 ads@servicetruckmagazine.com

**Next Editorial Deadline: Feb. 14, 2018**

For writers' guidelines and submission requirements get in touch with the Editor, Keith Norbury, at +1-250.383-5038. editor@servicetruckmagazine.com

PUBLISHED BY SOUTHERN TIP PUBLISHING INC.  
4623 William Head Road, Victoria, BC V9C3Y7

## ADVERTISERS INDEX

Auto Crane .....	2
Boss Industries, Inc.....	7
Cox Reels .....	25
CTech Manufacturing .....	5
Curry Supply Co.....	10
Dakota Bodies, Inc .....	18
Eberspaecher Climate Control Systems.....	20
Hannay Reels, Inc. ....	11
Jomac Ltd. ....	11
Maintainer Corporation of Iowa, Inc.....	13
NTEA - The Association for the Work Truck Industry .....	14
Palfinger Inc. ....	15
Reelcraft Industries Inc.....	22
Southwest Products Inc.....	23
Summit Truck Bodies.....	21 /27
Taylor Pump & Lift .....	12
Vanair Manufacturing, Inc.....	19
Venco Venturo Industries .....	4
VMAC .....	8
Wilcox Bodies Ltd. ....	back cover

NEWS

## Crane certification deadline pushed to November 2018

File photo by Keith Norbury



James Singleton, an apprenticeship and training crane instructor with local 18 of the International Union of Operating Engineers, maneuvers a steel weight through a course designed to test the capabilities of service truck crane operators at the 2015 International Construction & Utility Equipment Exposition in Louisville, Ky.

**T**he deadline for certifying U.S. crane operators — including operators of service truck cranes when used in construction — has officially been extended until Nov. 10, 2018.

The federal Occupational Health and Safety Administration published a rule in the Federal Register on Nov. 9 that confirmed the long-expected extension.

“OSHA is also extending its employer duty to ensure that crane operators are competent to operate a crane safely for the same one-year period,” the summary of the rule says.

OSHA extended the deadline just a day before the rule was to come into effect, the National Commission for the Certification of Crane Operators noted in a news release.

The extension of the deadline will give OSHA time to work on addressing a pair of issues that have arisen since the rule was first published in 2010, the NCCCO news release said. Those are “whether operators need to be certified by type and capacity, or just by type; and whether certification

is sufficient by itself to deem an operator qualified to operate a crane.”

The NCCCO “reluctantly” supported the additional delay — the deadline had already been extended twice — because changes to the rule “were critically important to the effectiveness of the certification requirement,” according to NCCCO CEO Graham Brent.

The new standard, known as 1926.1400, is aimed primarily at large construction. But the rule also captures “service/mechanics trucks with a hoisting device” of 2,000 pounds capacity or more when such a crane is used in construction. An exception is when the crane is “used in activities related to equipment maintenance and repair.” That, of course, is the primary use of service truck cranes.

As Joel Oliva, the NCCCO’s director of operators and program development, earlier told *Service Truck Magazine*, “the vast majority of service trucks are excluded from the rule.”



## ConExpo Tech Experience wins marketing gold medal

Mark Noakes, a senior researcher at the Oak Ridge National Laboratory, explains how additive manufacturing, or 3D printing, works to a visitor to ConExpo 2017’s Tech Experience pavilion.

**T**he Tech Experience pavilion at ConExpo-Con/Agg 2017 in Las Vegas has won a gold award for best outdoor exhibit from the editors of *Event Marketer* magazine.

ConExpo was listed among the winners of the 2017 Experience Design & Technology Awards announced in a recent posting on the *Event Marketer* website. The awards celebrate “the best-designed live experiences and the most powerful ‘wired’ engagements delivered by brands and partners worldwide,” the announcement said.

The Association of Equipment Manufacturers, which organizes ConExpo, had earlier received “innovation” awards for the Tech Experience from the American Society of Association Executives and Biz



Bash, the association noted in a news release. “We are extremely gratified by these honors, and kudos to all on our team and our partners who came together to present cutting-edge ideas, information and technologies to attendees at the 2017 show,” the release quoted Sara Truesdale Mooney, AEM’s vice-president of strategy and business development and 2017 show director. The 75,000 square foot Tech Experience explored work sites and job development of the future as well as trends in infrastructure. The AEM plans to bring the Tech Experience back to the next ConExpo in March 2020.

Photo by Keith Norbury



## COOL TOOL

# More than hose removal

Hose-removal tools can do much more than unstick radiator hoses.

**T**hey are marketed as hose-removal tools, to help “unstick” and pull radiator and other rubber hoses from radiator necks and fittings.

But they’re actually The Tool Of A Thousand Uses for creative mechanics.

Need to snag a roller chain or belt to pull it into position? Remove a corrugated springs from louver assemblies? Need to dig big O-rings out of massive couplings?

The handles and varied tips on a set of hose-removal tools inspire dozens of uses once they’re in your toolbox.

And — surprise — they work great for removing rubber hoses from radiators and fittings.

— Dan Anderson



## NEWS

# Equipment makers group reveals big plans for Canada

Canadian advocacy has been identified as a key strategic priority for the Association of Equipment Manufacturers, the AEM announced in December.

"Canada is arguably the most important international actor for our industry, considering the number of equipment manufacturers, parts and service providers and customers who call Canada home," AEM president Dennis Slater said in a news release.

"Canada is also the leading export destination for manufacturers of construction and agricultural equipment in the United States. That is why our Board of Directors have identified expanding our advocacy services in Canada as a key strategic priority for our industry."

In a reference to the uncertain future of the North American Free Trade Agreement, the association noted that the economic relationship between Canada and the U.S. is "at an especially pivotal juncture." Renegotiating NAFTA is a top priority in Canada for the AEM, with the association continuing to engage the Canadian and U.S. governments the release said.

According to the AEM, equipment manufacturers support 149,000 jobs in Canada, contributing \$15 billion US to the Canadian economy.

Nearly 90 Canadian companies — including original equipment manufacturers as well as parts and service providers — are AEM members.

U.S. construction equipment exports to Canada totalled \$9.1 billion in 2015. In 2016, agricultural equipment manufacturers exports to Canada tallied \$2.1 billion.

The steps AEM has taken to increase its advocacy in Canada included enpanelling a special working group of 18 Canadian member companies. Chaired by Skyjack Inc. president Brad Boehler, the working group met throughout 2017.

Earlier in 2017, the AEM organized a dinner for its board members at the Canadian Embassy in Washington, D.C. The association also ratcheted up its efforts in Ottawa by joining the Canadian American Business Council, meeting with various MPs, and helping to welcome U.S. Ambassador to Canada Kelly Craft at CABC's State of the Relationship reception in November.

"I am thrilled to see AEM take a more active role in advocating on behalf of our industry in Canada," Boehler said in the news release. "Given AEM's extensive policy expertise and connectivity with senior decision makers in both industry and government, the association is uniquely positioned to help companies of all sizes overcome legislative and regulatory issues impacting their economic growth."

The AEM's other Canadian advocacy priorities include agriculture policy, regulatory reform, infrastructure investment and workforce development.

Among the ways the AEM plans to increase its Canadian advocacy work in 2018 are to welcome Members of Parliament and government ministers to manufacturing facilities across the country "pushing pro-manufacturing policies in Parliament."



Dennis Slater



Brad Boehler



SAE/AEM Outstanding Young Engineer award winner Amy Jones receives plaque from SAE board member Landon Sproull of Paccar Inc. at 2017 SAE Commercial Vehicle Engineering Congress awards luncheon.

Photo courtesy of the Association of Equipment Manufacturers

## Deere employee honored with young engineer award

A senior engineer with John Deere has won the 2017 Outstanding Young Engineer Award.

Amy Jones, who works in John Deere's construction and forestry division, received the award at the SAE 2017 Commercial Vehicle Engineering Congress held earlier this year in Rosemont, Ill.

SAE International and the Association of Equipment Manufacturers "established the award in 1996 to recognize an outstanding young engineer in the off-highway or power plant industry," said a Nov. 29 news release from the AEM.

"We are pleased to support SAE and recognize the next generation as we promote industry workforce development and excellence," the release quoted Mike Pankonin, AEM's senior director

of technical and safety services. "We commend Amy for her work and dedication and wish her continued success."

Jones has been in her current position with John Deere since 2014. She joined the company in 2010 after having completed three internships as an undergrad, the release said. Her career as a project engineer began with Sachs Electric Company in St. Louis.

Currently pursuing a system and design management certificate from MIT, Jones earned her MS in electrical engineering from Purdue University.

Jones is also active in the Society of Women Engineers as well as the Institute of Electrical and Electronics Engineers. IEEE-USA chose her as its New Face of Engineering in 2014.

# BUILT TO LAST

RUGGED. RELIABLE. REAL.  
TRUCK & VAN CRANES

HOISTS

CRANE TRAINING SERVICES

ARTICULATING CRANES

engineered AIR systems

COMING SOON!

Electronic Crane Control Management System

- Radio remote pistol-grip controller
- Real-time load and status LCD display
- Precision overload protection
- Multiple safety and capacity alerts
- Vehicle stability and grade control

[www.venturo.com](http://www.venturo.com)      12110 Best Place | Cincinnati, Ohio 45241 | 800-226-2238 | 513-772-8448 Local | [info@venturo.com](mailto:info@venturo.com)

Connect with us

## NEWS

# Truck chassis sales soaring

**C**ommercial truck chassis sales for the U.S. and Mexico rose 16.8 percent in September compared with September 2016, according to a recent monthly report from the National Truck Equipment Association.

Canadian sales increased by nearly double that — 35.5 percent — said a news release announcing release of the report.

In all three countries, sales increased in all cab-type segments and classes 3 to 6 with the exception of light- and heavy-duty sales, which fell, the release said.

NTEA members can access the monthly chassis report for free from the association website, [www.ntea.com](http://www.ntea.com).

A forecast of North American chassis sales will be the subject of a session at the Work Truck Show in Indianapolis this March.

The session — presented by Andrej Divis, director of medium and heavy commercial vehicle research with IHS, and Steve Latin-Kasper, the NTEA's director of market data and research — takes place March 6 from 1:30 to 2:45 p.m.

The Work Truck Show runs March 6-9 at the Indiana Convention Center, with the exhibit hall open March 7-9.

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



Steve Latin-Kasper

## MECHANIC'S MUSINGS



All but the most exceptional mechanics need to look up details when doing complicated repairs.  
Photo by Cineber/iStockphoto.com

DAN ANDERSON

## So simple, even Dan can do it

**S**ometimes, when I'm literally hip-deep in a machine, surrounded by tools and myriad parts, customers comment, "Man, I'd never get that thing put back together."

My response is usually, "Well, it can't be *too* hard, if somebody like me can figure it out." Because, when you think about it, complex repairs are just simple repairs done in the proper sequence.

Replacing a bearing in a transmission is as simple as removing the old bearing and installing a new bearing. But *getting* to the bearing is the challenge. Having the right jacks and supports and tools to remove a cab, knowing how to split the cases, knowing the tricks to dealing with hydraulic lines and electrical wiring harnesses — there's nothing super-

complicated about any of the steps. It's just getting them all done in the correct sequence with a minimum of fuss.

Sure, there are complicated aspects to major repairs — preloading bearings, setting backlash on gears — but many professional mechanics rely on tech books to walk them through the complicated stuff. A few veterans who specialize may have the intricate procedures memorized, but those guys are magicians who don't live in my world.

In my world, I trudge through repairs by relying on tech books and hard-learned experience. I view every repair, no matter how complicated, as a series of simple steps that I just have to do in sequence, correctly. Most of the time, it works out OK.





# ALUMINUM CARTS, CABINETS & DRAWERS

## WWW.CTECHMANUFACTURING.COM

- HOUSING INSERT - CABINET INSERT - TOOL DRAWER INSERT - SPECIALTY -

**CTECH EXCLUSIVE**  
**MotionLatch™**  
Drawer & Door System  
US Patent 6,547,269






**THE WORK TRUCK SHOW**  
**BOOTH #319**



FOLLOW US:  
f t i

**"I've worked in some of the toughest, most remote places on earth, and CTech drawers can stand up to the rigors of my work environment and the rough demands of my everyday work."**

- **Juan Ibarra**, owner/operator Ibarra Industries LLC.  
from Discovery Channel's **GOLD RUSH**

**Meet Juan Ibarra @**  
photos and autographs welcomed



© 2018 NELSON DEWEY

## NEWS

## New chair chosen for AEM

A regional president for Doosan Bobcat Inc. is the new chair of the Association of Equipment Manufacturers.

Richard M. Goldsbury, Doosan Bobcat's regional president for North America & Oceania, was elected to the position at the AEM's recent annual business meeting in November.

Six other officers were elected at the meeting, as were directors to the AEM board and its agricultural and construction equipment sector boards.

The other AEM officers for 2018 are as follows:

- Vice-chair Jim Walker, vice-president Case IH N.A., CNH Industrial;
- Ag chair John D. Lagemann, senior vice-president of sales and marketing for regions 3 and 4, Deere & Co.;
- CE chair Jeffrey R. Reed, president and



Rich Goldsbury

CEO, Reed International/VSS Macropaver;

- treasurer Todd H. Stucke, senior vice-president of marketing and product support, Kubota Tractor Corp.; and
- secretary Dennis J. Slater, AEM's full-time president.

"At AEM, we benefit from the support of our member companies and the dedication of their representatives who serve in AEM leadership roles," Slater

said in a news release announcing the election results. "They help ensure Association programs continue to meet member and industry needs, helping them succeed in the changing business environments of the future, and we appreciate their knowledge and participation."

Among AEM's more than 950 member companies are several service body manufacturers and accessory makers.

## EDITORIAL

## Expect more of interest to occur in coming year

If nothing else, 2017 was an interesting time. As it drew to a close, it still wasn't clear if that was simply interesting in the ancient Chinese curse sense or if it foreshadowed even more interesting things to come in 2018.

One thing is for sure, we should expect the unexpected in 2018 — especially when it comes to politics. Who would have predicted at the outset of 2017 that the dominant political narrative at the end of the year would be a movement called #MeToo? And that the movement would have an outsized effect on the race to represent Alabama in the U.S. Senate?

Something has angered and mobilized a large proportion of half the population and those women look increasingly like they just aren't going to take it any more. For people in positions of power and authority — who are still usually men — that's something to think about seriously in 2018.

Otherwise, the problems are going to multiply and magnify. Fortunately, these problems have a fairly easy solution — treat women with the dignity and respect they deserve as human beings. If men behaved like gentlemen then the atrocities that so many women rightly complain about wouldn't happen.

Of course, men should treat their fellow males with gentlemanly respect as well. That's not say they shouldn't express their opinions with conviction or defend them with vigor. But that can be done without resorting to insults and *ad hominem* attacks — in other words, we should attack the argument not the arguer. More importantly, people should be prepared to admit they were wrong or mistaken and change their opinions accordingly — especially in the face of overwhelming evidence.

And they should be able to do so without accusations of being soft or weak. Wisdom should never be denigrated.

Finally, when people do admit mistakes and apologize sincerely for them, apologies should be accepted. That's the path to reconciliation. Unfortunately, in this politically divisive age, it's a path that far too few people in authority appear willing to take.

It's a wonder, at times, that the U.S. government gets anything done. Yet as this went to press, Congress was about to enact legislation that would slash taxes considerably. Whether this will produce a rising tide that lifts all boats, as Republican proponents argue, or spawn a economic tsunami that wipes out the prospects of all but the most fortunate, as Democrats fear, won't

become immediately apparent. The economic ocean is a turbulent place subject to tidal, climactic, and weather-related forces of which an individual nation's tax policies are only part of the mix.

What's clear from the proposed tax changes is that they grant greater control over more of the nation's money — and what it can do for the economy — to a small group of people who already exert the most control. Will that extra cash be spent on overpriced art objects or villas overseas? Or will it go toward raising the wages of working class people so that they can pay higher taxes?

With the U.S. unemployment rate at a record low of around four percent, and the demand for skilled workers ever increasing, it looks like there's an incentive for businesses to use their tax breaks to raise wages and invest in training.

Let's see if that happens, and, just as importantly, if it can soon make up for the trillion dollars in debt the tax cuts will require. Of course, it would be naive to think that the tax cuts will produce immediate effects or that any such effects won't get lost among other economic noise, such as commodity prices, the value of the dollar, or ramifications from increased or restrained international trade.

The latter is another area that is bound to become more interesting in 2018. That's especially true of the major trading partners of the U.S. Despite all the concerns raised of late about trade, the U.S. has such a huge internal economy that it relies far less on trade than any other advanced economy. According to the World Bank, total U.S. trade was only 28 percent of U.S. gross domestic product in 2015. Mexico (at 78 percent in 2016) and Canada (64 percent in 2016) are far more trade dependent, which explains why they're much more eager to renegotiate the North American Free Trade Agreement.

Fortunately, for Canada at least, the Association of Equipment Manufacturers — which has dozens of members in the service truck industries — recognizes the importance of trade to the economies of both countries as well as its membership. It's not just about being nice to Canadians. Canada is huge export market for U.S.-made equipment, which typically involves cross-border supply chains.

So the future of that trade will be another very interesting thing to watch in 2018.



## OUR SUBMISSIONS POLICY We invite your feedback and ideas

*Service Truck Magazine* welcomes submissions of letters, guest columns, short notices, product announcements, press releases, and ideas for articles. Send them to [editor@servicetruckmagazine.com](mailto:editor@servicetruckmagazine.com).

**Letters:** Please limit your letters to 250 words. Include your full name, the city or town you live in, and a contact phone number. We do not publish anonymous letters or letters written under pseudonyms.

**Guest columns:** These can be up to 700 words. Please send a brief note of inquiry first, however, just in case space what you wish to write about has already received a lot of coverage in our pages. Include your

full name, the city or town you live in, and a contact phone number.

**Short notices:** Tell us about individual promotions, appointments, awards, staff movements, plant openings, plant closures, expansions, and other milestones. These short items should be no longer than 100 words.

**Product announcements:** Are you a supplier to the industry? Has your company developed a new product or process? If possible, attach a photograph.

**Press releases:** These should have something to do with service trucks and mechanics trucks in North America. We

might publish only part of a press release or use it as starting point for an article by one of our writers.

**Story ideas:** Maybe you have an idea you'd like us to explore for an article. A good rule of thumb is to limit your story idea to no more than 30 words. If it takes longer than that to describe it, then chances are we won't be able to take it on.

All submissions are subject to editing and publication cannot be guaranteed. The deadline for our next issue of *Service Truck Magazine* is Feb. 14, 2018. Sooner is always better than later.

## About our cartoonist

Nelson Dewey has been a prolific cartoonist for over 50 years. If his work looks familiar, maybe you read a lot of comic books when you were younger.

In the 1960s, '70s and '80s, Dewey was a frequent contributor to those comics, particularly *CARToons*. He also drew for *Hot Rod Cartoons*, *CYCLEtoons*, *SURFtoons* and *SKItoons*.

To see samples of Dewey's car cartoons, go to his website, [www.nelsondewey.com](http://www.nelsondewey.com).

## Make the most of inspections continued from cover

trade show in Las Vegas. “What we found was that guys really didn’t know what and where to put in the machine. There was a lot of confusion with mechanics but it got even greater talking to operators who were mostly in charge of topping off the lubricants, the grease in the machine, and doing the preventative maintenance, morning inspections and communicating how the machine is operating back to maintenance.”

Giovinazzo quickly changed focus to include the operators of the machines who are the first line of defense in the field.

“The operators, those are the guys that know ‘I’ve got a valve sticking; I’ve got a control mechanism that’s not operating properly; the machine is sluggish; I get some chatter when I engage it in gear,’” Giovinazzo says. “We started to figure out a program where we could educate the operator without burdening him with all the technicalities of the lubricants and true preventative maintenance.”

### Notice the obvious

One of the most informative experiences that has shaped Giovinazzo’s presentations was with a Winchester, Virginia-based company whose equipment manager asked for a training session for its operators and safety people. The manager also asked Petrocon to take a look through the company’s yard, to see what issues might be found with the company’s equipment. Petrocon found a wide variety of common-sense problems that were not being reported back to the mechanics.

“As we walked around, we started looking at hydraulic hoses and we started to see, for example, this machine has frayed hoses and is leaking around the fitting,” says Giovinazzo. “This other machine the hoses are painted over and the paint is insulating the heat coming off the hose

which can cause it to break more quickly and start leaks. We saw planetary gear boxes on differentials that were showing leaks. When you have any oil leaking out, you have dirt seeping in. Plus it’s a hazard on the machine; it makes the machine slippery. A lot of machinery today, like big excavators, are pushing 6,000 psi plus – you blow a hose with 6,000 psi plus, you’ve got an environmental condition potentially by the time you hit the stop button on the machine. Let alone the safety hazard – you get a pin hole in a 6,000 psi hose, it can turn into quite an effective laser and punch a hole right through somebody. There are safety issues like that and sometimes the guys on the machine don’t realize the dangers and the pressures they’re working with on a daily basis.”

Petrocon also added infrared heat guns to its repertoire. They allow for quicker diagnosis of certain issues — a differential that keeps blowing out, for example, can be analyzed by the heat guns to see if it is operating within normal operating temperatures or to examine the exhaust manifold and find a leaking injector without taking an entire engine apart.

“The other commonsense items are the fluid handling procedures and grease procedures,” says Giovinazzo. “Simple things like wiping off the zerk fitting on the equipment that they’re greasing that’s full of mud and dust. Sticking the grease gun on that fitting and pushing all of the dirt into the joint or the bearing.”

### Use the right stuff

Using the right fluids in the right circumstances can make a huge difference, Giovinazzo says. Different gear lubricants can be identified by their smell, for example. Certain gear lubricants are fortified with extreme-pressure additives, which



**“We started to figure out a program where we could educate the operator without burdening him with all the technicalities of the lubricants and true preventative maintenance.”**

— Joseph Giovinazzo, president, Petrocon Corporation

can be detrimental to components with brass or non-ferrous material. Giovinazzo’s presentations also cover proper storage and handling of fluids — if storing drums outside, keep them on their sides so that the drum doesn’t breathe water into the oil, for example.

“We talk about the requirements for the componentry, the cleanliness of the oil, the importance of keeping the integrity of the oil clean,” Giovinazzo says. “We talk about the cleanliness of the new oil coming out of the drum or the bulk tank, how that’s not really clean. And then we talk about how filtration is set up on the equipment, which is typically return lines so if they’re putting dirty oil in it goes through all the valves, the servos, all the components before it even gets filtered by the machine.”

Recalling that early presentation in Winchester, Giovinazzo says he showed

photos of some of the issues being discussed to the 100 or so workers in attendance. Some of those workers were dismissive.

“Guys were kind of chuckling when we were showing them, like ‘how can they not see that?’” Giovinazzo says. “At the end, the equipment manager stood up and said, ‘I know you guys think this is funny, but this equipment is not a random photo, this is our equipment in the yard.’ And then the jaws dropped. It was an eye opener for them. It was a neat session and now we do that all over the country. We’re just revealing all the things to look for and we encourage them to incorporate that into the existing equipment inspection walk-around.”

Matt Jones is a writer based in Frederickton, N.B.



# LESS IS MORE

Less engine speeds means more fuel savings!  
More ground clearance for the tougher jobs!

INTRODUCING OUR NEW LOW PROFILE  
ROTARY SCREW AIR COMPRESSOR!

Our new streamlined air compressor offers more ground clearance than ever before. Designed around our new SCAR radial mount discharge block and 15% more conservative input speeds, this underdeck compressor package is perfect for the FORD F-Series Trucks with up to 185CFM of air demands! *And Now with a Lifetime Warranty!*

BOSSair.com | 800/635-6587

engineered AIR systems

## NEWS

## What's in store for 2018?

*continued from cover*

Mike Blaser. "Every single suburb has its own municipality, and they have their own fleet of trucks to service their area, so going into 2018 we're looking at an increase in truck equipment sales for sure."

Still, the Illinois economy has struggled and Sauber is feeling the pinch. "We haven't been able to balance a budget, so there's not a lot of state money available for vehicle purchases and everything else," Blaser said.

### Equipment turnovers anticipated

On the other hand, local governments and independent contractors are turning over equipment, and states like Indiana and Wisconsin have proven more stable.

"Things are going to get better and we're already starting to see a loosening," Blaser said. "You can only hold off a fleet and limp for so long before you're forced to buy new equipment, and a lot of our customers are at that stage."

With a stable base of nearly 70 employees, Sauber maintains a separate trailer business and has weathered the storm by retrofitting new equipment onto old chassis. "There's always improvements you make when you're remounting," Blaser said. "We might redesign a new bumper and put some additional things on there that they wish they had the first time around. So it's a win for customers and it's a win for us because it's additional business."

In Sioux Center, Iowa, Service Trucks International president Walt Van Laren reported fairly steady growth through 2017.

"The industry as a whole is quite busy and healthy today — probably the healthiest it's been in close to a decade," Van Laren said.

STI isn't too far from North Dakota's Bakken oil patch, which has struggled for several years thanks to rock-bottom oil prices that have risen only marginally over the last year. Van Laren said his company hasn't suffered directly because service providers in the Bakken source most of their truck equipment from Oklahoma and Texas, not upper-midwest states like Iowa.

**"Our truck equipment sales went up and we have a lot of active quotes. Every single suburb has its own municipality, and they have their own fleet of trucks to service their area, so going into 2018 we're looking at an increase in truck equipment sales for sure."**

**— Mike Blaser, marketing manager, Sauber Mfg. Co.**



**"The industry as a whole is quite busy and healthy today — probably the healthiest it's been in close to a decade."**

**— Walt Van Laren, president, Service Trucks International**

"What does affect my business is that we have some very good distribution in western Canada, and business can be very good when oil is better and the dollar is closer to par than it has been."

### Will 2017 mirror 2018?

Orders from Alberta and British Columbia are down from 20 to 25 per cent of STI's volume of business to the low single digits, though Van Laren said a weaker U.S. dollar could potentially induce more Canadian cross-border orders.

Meanwhile, STI has countered these losses with agricultural, construction and other markets. "The biggest challenges have been finding people to grow with — our unemployment rate here is exceedingly low, like in the two percent range or less," Van Laren said.

Van Laren worries some kind of large-scale calamity could upset financial markets, yet he expressed optimism. "I believe 2018 will probably be a mirror of 2017, which would be awesome. All the signals are that business is going to continue as it has."

Tea, South Dakota is also relatively close to the Bakken, but Teamco Inc. sales manager Myron Holzwarth said his company's sales of Feterl-branded service bodies has been largely unaffected by oil troubles.

"We do sell some up there but they're not the bulk of our sales by any means," Holzwarth said, describing Teamco's sales as mostly nation-wide.

"We've had a gradual uptick in sales," Holzwarth said. "We came out with a new service body design several years back, and that's caught on."

## THE WORLD'S FIRST DIRECT-TRANSMISSION MOUNTED PTO DRIVEN AIR COMPRESSOR... with a HYDRAULIC PUMP!



**NEW PRODUCT SPOTLIGHT**

**THE WORK TRUCK SHOW**

**BOOTH #3677**

**Two systems into one to reduce weight & maintenance costs.**

**ZERO footprint on your truck bed.**

**50% reduction in install times over other underdeck systems.**

For more product information:

[www.VMACAIR.com/ST/DTMH](http://www.VMACAIR.com/ST/DTMH)

1.888.346.9292

**VMAC**



**“After the election we’ve kind of come to the realization that life is going to continue. I hear people saying that since Trump got in they feel that industry is going to continue to grow, and that they know what they’re dealing with for the next several years, so they feel better about it.”**

**— Myron Holzwarth, sales manager, Teamco Inc.**

### Farm business promising

While customers include resource companies, most sales are to other vertical markets. Commodity prices remain weak, but farming operations have grown in size and scope and equipment needs to be serviced regularly. “They know they have to keep servicing and maintaining their equipment, so we’re still selling a fair amount into the agriculture industry,” Holzwarth said.

Heavy construction, meanwhile, has picked up considerably. “That’s what we’re seeing a lot of — that’s where our trucks are going,” Holzwarth said.

Holzwarth also has his eye on government. “After the election we’ve kind of come to the realization that life is going to continue,” he said. “I hear people saying that since Trump got in they feel that industry is going to continue to grow, and that they know what they’re dealing with for the next several years, so they feel better about it.”

In the northeast, The Hews Company maintains a staff of more than 40 employees and distributes service trucks and other vehicles, including Maintainer and Reading lines. “We’re a fairly small market,” company president Robert Hews said, describing customers as far afield as Boston, Hartford, and the Canadian province of New Brunswick.

“The economy in New England is still strong,” Hews said, describing 2017 as “one of our better years” but noting that vertical markets vary — mining and forestry remain weak while construction and waterworks are faring well.

### Cheaper fuel means bigger trucks

“We’re looking for 2018 to be similar to 2017,” Hews said. “Lead times are up and there’s still pretty good demand for ordering now, but it’s hard to tell what’s going

to happen even in the second half of next year. My concern is that there will be more supply than demand in the work truck market, that the supply is getting ahead of demand.”

Increased players and suppliers tightens competition, especially for Class 5 trucks. “With bigger trucks, you have to have a little more design and engineering, and customers are looking for features and benefits,” Hews said.

Even in the east, low oil prices are having an impact. However, away from the oil patch, that impact is opposite to what’s happening inside the patch. “When oil was up, people wanted their trucks lighter so they wouldn’t have to spend a lot on fuel,” Hews observed. “It was all about fuel economy. Now that conversation’s not going on because fuel prices have been so reasonable.”

The view from Canada is equally hopeful. Milton, Ont.-based Wilcox Bodies Ltd. custom manufactures service and utility vehicles and vice-president David Dick said sales are rising steadily.

**“Every year we seem to be a little bit higher than the year before, and we’re finding U.S. sales are also increasing — probably due to exchange rates but showing that the economy down there is also definitely strengthening.”**

**— David Dick, vice-president, Wilcox Bodies Ltd.**

### Full schedule already

“It seems like it’s a strong marketplace right now,” Dick said. “Every year we seem to be a little bit higher than the year before, and we’re finding U.S. sales are also increasing — probably due to exchange rates but showing that the economy down there is also definitely strengthening.”

It helps that Wilcox hired a U.S. sales rep several years ago. Dick said the company focuses coast-to-coast in Canada and throughout the eastern U.S., but also has nation-wide representation through a Pennsylvania distributor. U.S. sales account for nearly one-quarter of sales, Dick added.

“We’re booking into March right now. Our schedule’s already full, so we’re hiring for multiple shifts.”

Reps from North America’s two truck associations also expressed hope. Don Moore, director of government and indus-

not fluctuating too much, as long as it’s staying in around 75 cents (to the U.S. dollar), that seems to be a good place for it. It makes our products attractive to Americans but doesn’t hurt us elsewhere.”

### NTEA expects more growth

South of the Canadian border, National Truck Equipment Association communications director Summer Marris consulted several subject matter leads in her organization and, in a written statement, said commercial truck chassis sales declined in the first quarter of 2017, in line with a decline in the larger capital equipment market, but rebounded in the second quarter.

“Since then, sales have grown steadily, and will likely end the year about six percent ahead of 2016,” Marris wrote.

Marris added that the NTEA expects commercial truck chassis and truck-mount-



**President Bob Hews (right) of The Hews Company — shown here with Drew (left) and Charlie Hews — says he is concerned that supply might get ahead of demand.**

*Photo courtesy of The Hews Company*

try relations with the Canadian Transportation Equipment Association, described 2017 as reasonably good.

### Infrastructure investment helps

“The economy seems to be coming around and things seem to be picking up,” Moore said. “Certainly, on the heavy side, Class 8 sales are up, and it’s been a better year even for oil and gas in Alberta, where things were really dicey (in 2016).”

Moore has his eye on talk about renegotiating the North American Free Trade Agreement as well as planned Canadian government infrastructure investments and tax reform proposals.

“We’re dealing with companies that are small and medium-size. They’re innovative and fast moving, and to really upset the apple cart by throwing tax disincentives at them — this isn’t a good time for that, well there’s never a good time. So it’s just finding good middle ground.”

Still, Moore acknowledges that taxpayer investments in things like infrastructure also help the work truck sector and the economy overall. “Housing starts have been fairly strong across the country, and that’s probably a good sign for the vocational truck sector.”

Moore added that stable currency rates have also proven positive. “As long as it’s

**“We’re looking for 2018 to be similar to 2017. Lead times are up and there’s still pretty good demand for ordering now, but it’s hard to tell what’s going to happen even in the second half of next year. My concern is that there will be more supply than demand in the work truck market, that the supply is getting ahead of demand.”**

**— Bob Hews, president, The Hews Company**

ed equipment sales will continue growing along with capital and consumer expenditures.

And, while low oil prices had a negative impact on commercial truck chassis sales from 2015 to 2016, an accelerating global economy is creating increased demand for oil. Marris said some upward pressure on oil prices could likely lead to existing wells and exploration coming back online, and this in turn would increase demand for commercial vehicles within the energy sector.

One telling, final thought: The biggest challenge in 2017, Marris wrote, was finding qualified labor. She anticipated this will likely carry over into 2018.

*Saul Chernos is a freelance writer based in Toronto.*





## SHOW PREVIEW

### Building a skilled workforce continued from cover

As manufacturers across the country brace for a wave of Baby Boomers retiring, many are struggling to fill their spots — or even to know where to look for the right workers. But increasingly, manufacturers, schools, colleges and outside groups are trying out new ways to boost the pipeline of manufacturing workers before the employment gaps get too big to bear.

#### Focus of Work Truck Show discussion

Gaines will make the case for better teacher training at the 2018 Work Truck Show in Indianapolis this March. Joining him in a discussion about building up the manufacturing workforce will be Kirste Webb, executive director of the Visionary Center for Sustainable Communities, a nonprofit group working to tackle the same challenges Gaines is working on. Their session happens on the show's opening day — Tuesday, March 6 — from 3 to 4:15 p.m.

The show, taking place at the Indiana Convention Center, runs until March 9. It begins with a Green Truck Summit, Fleet Technical Conference, and other educational sessions on March 6. The exhibition hall is open March 7-9.

Webb's group works with schools, colleges and businesses, using a mobile classroom to show off the latest trends and technology in manufacturing and get future manufacturing workers interested in pursuing a career. The center is bringing the mobile classroom to the Work Truck Show for the first time and will set it up in the Ride-and-Drive area.

"We know that manufacturers have the need and often will hire kids coming out of high school," said Webb, whose organization is headquartered in Knoxville, Tenn. "The issue we found is that the kids don't know that it's even possible, so this program gets them up close and per-

sonal with the manufacturing industry."

The first step in building that interest is usually dispelling a few myths about manufacturing, Webb said. The big ones: that robotics are eliminating jobs, rather than transforming jobs, and that manufacturing is "dirty, dark and dangerous," rather than a safe and often high-tech career path.

A third major issue is in how students are taught to think about their futures from an early age, Webb said.

"We've been pushing kids to go for degrees, asking what college are you going to go to, what are you going to major in," she said. "It's not: what do you want to do for a living? Which is where it needs to go."

#### New approach for smaller firms

In northern California, Gaines is part of an effort called the Grow Manufacturing Initiative, which aims to link manufacturing instructors with help and advice from the manufacturers in need of more workers.

While larger companies can attract and train new workers with apprenticeship programs, that approach just isn't feasible for many smaller operations, Gaines said. He says it's best to make sure teachers in middle and high schools, along with colleges and tech schools, have the right skills and tools to help prepare their students before their first day on the job.

"If we can train the teachers in those technologies and be a part of that, then they can teach hundreds of their students," he said. "It's a numbers game."

At the moment, too many schools and colleges focus their manufacturing and trade programs around outdated technology, Gaines said. Many are still training students in AutoCAD even though most manufacturing companies are now using SolidWorks for design, he pointed out.

Those kinds of gaps pose problems for two reasons,



**"We've been pushing kids to go for degrees, asking what college are you going to go to, what are you going to major in. It's not: what do you want to do for a living? Which is where it needs to go."**

**— Kirste Webb, executive director, the Visionary Center for Sustainable Communities**

Gaines said. They don't prepare students for the kind of work they'd actually encounter at today's manufacturing companies; and they don't make the case for why manufacturing can be an exciting, well-paying and forward-looking career.

"There is no question this generation knows technology," he said. "But we're not giving them the opportunity to use it."

#### Battling outdated perceptions

Both Webb and Gaines said many young people don't think of manufacturing as work that will pay well and allow for a comfortable life, or of training programs as meaningful education.

"It's a perception of what the job is," Webb said. "In my era growing up it was called vocational school, and (being in) vocational school meant you struggled to get good grades. That's not right."

Webb's mobile classroom approach aims to show students the range of possibilities open to them in manufac-



# YOUR JOBS. OUR TRUCKS.

**Built. Financed. Delivered. Serviced. Guaranteed.**

Curry Supply makes it easy to purchase your next Mechanics Truck. We handle it all for you - including quick response, a large in-stock inventory, custom design capability, in-house financing and shipping, plus an industry-leading warranty.



[www.CurrySupply.com](http://www.CurrySupply.com) | 800.345.2829

One of America's largest manufacturers of commercial service vehicles, since 1932.



SHOW PREVIEW



turing. That could mean building service bodies or other components for vehicles. Or, as she explained to one student set on a career in fashion design, it could mean learning to design and build a wide variety of products.

The mobile classroom is also a useful recruitment and training tool for military veterans trying to figure out how to transition into civilian careers.

**Different thinking needed**

Webb recommends that companies looking to hire manufacturing workers should think differently about how they search for the right job candidates — whether they are recent graduates or people make mid-career transitions. Instead of focusing on a specific path someone has taken through school and work, she suggests honing in on the skills that are needed to get the job done.

Too often, Webb said, potential hires are tossed out only because they don't check all the education and experience boxes on the appli-



Photo courtesy of the Visionary Center for Sustainable Communities

Henry, a Connect4 robot from Denso Robotics, is among the pieces of equipment in the mobile classroom from the Visionary Center for Sustainable Communities that will be set up at the Work Truck Show this March in Indianapolis.



**"There is no question this generation knows technology. But we're not giving them the opportunity to use it."**

— Bill Gaines, chairman and senior engineer, Transfer Flow Inc.

cation form. And people with advanced degrees or significant experience often expect they can enter directly into management roles, which aren't always the best fit.

"When you go to a career fair, teach the recruiters how to change the language, or send a programmer or project manager," she said.

Gaines and Webb said it's going to be crucial that manufacturers are willing to work together — and share their knowledge and resources with others — to reverse the ongoing trend of worker shortages in manufacturing.

"My biggest message when we go out is that manufacturing is really cool," Webb said. "It's trying to change how we look at the industry, and how we talk about the industry."

Erin Golden is a journalist based in Minnesota.



POWERFULLY LIGHT



Aluminum truck bodies  
Hydraulic Telescopic and Articulating Cranes

Distributor Inquiries Welcome



Only articulating crane still manufactured in the US

Check out our NEW website

[www.jomac ltd.com](http://www.jomac ltd.com)

Phone: 1-800-755-4488 | 182 Scio Road Carrollton, Ohio 44615

THE REEL THAT WORKS AS HARD AS YOU

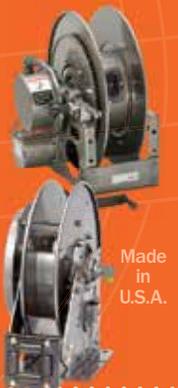
Hannay Reels offers more than 3,800 models for air, hydraulic, lube, cable, and other heavy-duty applications.

When you need dependable equipment that won't quit, Hannay Reels delivers with:

Heavy-gauge steel frame, discs, and drums

Easily accessible components for trouble-free maintenance

Reels built to order with fast delivery



Made in U.S.A.

Visit Booth #1805 at the 2018 NTEA Show for a full display of work truck and utility reels. Register to win a portable cable reel from Hannay Reels!

Find your next reel at the new [hannay.com](http://hannay.com) or 877-467-3357



ServiceTruck

THE MAGAZINE FOR MOBILE REPAIR AND MAINTENANCE

\$36  
six issues

More news, profiles and features!  
Six times a year.

To subscribe or find out more go to [www.servicetruckmagazine.com](http://www.servicetruckmagazine.com)



THE  
WORK  
TRUCK  
SHOW

## SHOW PREVIEW

# Mobile classroom coming to 2018 Work Truck Show

Fleet Technical Congress also makes it debut at Indianapolis event

KEITH NORBURY

**A** mobile learning center and a Fleet Technical Congress are among the new additions to the annual Work Truck Show taking place this March in Indianapolis.

The Fleet Technical Congress runs parallel with the Green Truck Summit, which has been part of the annual Work Truck Show for years.

The congress “is designed for established fleet managers and those moving into more senior fleet management roles,” the National Truck Equipment Association, which organizes the Work Truck Show, said in an email response to questions from *Service Truck Magazine*. “It offers an ideal setting for fleet professionals to hone their skills and gain a fresh perspective on ways to address industry challenges.”

The Visionary Center for Sustainable Communities will set up its mobile classroom in the Ride-and-Drive area of the show, which happens at the Indiana Con-

vention Center from March 6 to 9, 2018.

Kirste Webb, executive director of the Visionary Center for Sustainable Communities, said by email that the center is “very excited” to be coming to the Work Truck Show.

“This shows that our outreach efforts are really working,” Webb said, crediting her connection with the National Institute of Standards’ Manufacturing Extension Partnership for making it possible.

As NTEA managing director Doyle Sumrall pointed out in an NTEA News article in February 2017, his association’s

**“This shows that our outreach efforts are really working.”**

— Kirste Webb, executive director,  
Visionary Center for  
Sustainable Communities



Michael Casey and his son Everett check out a service body at the Maintainer of Iowa booth at the 2017 NTEA Work Truck Show in Indianapolis.

File photo  
by Keith Norbury

members have worked with NIST MEP program centers across the country for decades. NIST has a network of centers in all 50 U.S. states and Puerto Rico.

### “Interactive experience”

The Visionary Center’s mobile learning center has advanced manufacturing systems and technologies such as three-dimensional printing, scanning, robotics, and laser cutting equipment. It promises an “interactive experience” that features the online training resource Project Ignite as well as other information on manufacturing education and career pathways.

The center will be open to all Work Truck Attendees without any additional registration.

Webb said her organization is encouraging attendees to spend at least half an hour inside the learning center “so that they can learn about each piece of equipment and what the possibilities are for careers.”

The NTEA, which markets itself as the Association for the Work Truck Industry, is also excited to have the mobile learning center at the show.

“The mobile learning center provides a tangible demonstration of how companies can collectively work together to raise the awareness of career opportunities within a geographic area or industry segment,” the NTEA said.

The Visionary Center — which is headquartered in Knoxville, Tenn. — will tailor its messages at the Work Truck Show

to address the needs and challenges of the work truck industry. The center will also include information about nearby educational programs.

The Work Truck Show’s educational sessions begin on March 6 while the exhibition floor is open March 7-9.

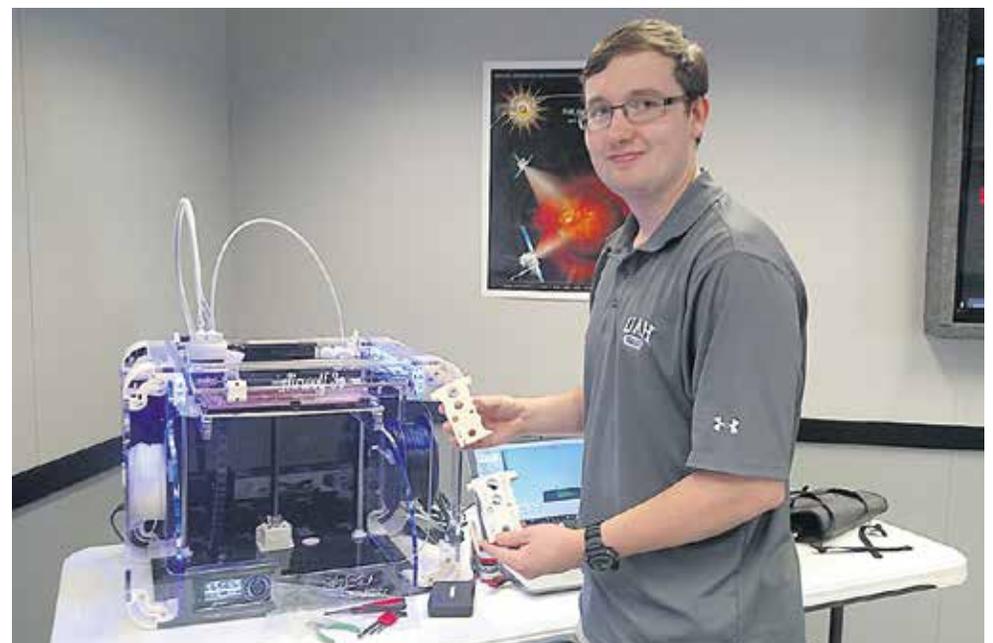
Coinciding with the Work Truck Show are the Green Truck Summit and Fleet Technical Congress, which both take place on March 6 this year. Registrants for either the summit or congress can also choose from concurrent educational sessions on March 7 and 8.

### Former CIA head speaks

Certain special sessions and the President’s Breakfast require separate registration and tickets. General Michael Hayden, a retired four-star general and former director of the Central Intelligence Agency and National Security Agency, will deliver the keynote address at the President’s Breakfast.

New this year, the show’s opening reception is only included in a Fleet Technical Congress package, which must be purchased separately from any other packages.

The congress opens with a keynote address by Ed Peper, U.S. vice-president of General Motors Fleet at 8:45 a.m. “Peper will discuss how rapid changes in product development are driving innovation in commercial vehicles and changing working relationships between chassis OEMs and fleet managers,” said a news release



Zack Machanoff, tech genius/guru, gets the equipment running, such as this 3D printer, for the mobile classroom that the Visionary Center for Sustainable Communities will set up at the Work Truck Show this March in Indianapolis.

Photo courtesy of the Visionary Center for Sustainable Communities

## Custom and Standard Lube Trucks and Skids available

**THE WORK TRUCK SHOW**

Come Visit Us  
Booth 2971

**Backed up with a leading 5-year warranty!**

**OUR GOAL IS** not to build what we want, but **TO BUILD WHAT YOU NEED** TO BETTER SERVE YOUR BUSINESS.

**TPL TAYLOR PUMP & LIFT**

704.786.9400 f: 704.784.2442  
4325 Motorsports Drive Concord, NC 28027

**TAYLORPUMPANDLIFT.com**  
Visit our website for other applications!

SHOW PREVIEW



announcing the congress schedule.

Five other sessions — “led by top fleet managers and industry suppliers” — will follow in succession. The include such topics as the impact of smart and connected vehicles on fleet operations, reactive versus predictive maintenance, and exploring if your vehicle replacement strategy is in a rut.

As this went to press, the keynote speaker for the Green Truck Summit had yet to be announced. However, six Green Truck Summit educational sessions have been scheduled for March 6. They cover such topics as technology and fuel advancements, commercial vehicle productivity and efficiency, and a roadmap to available local, state and federal funds.

**Strong turnout expected**

Among the special sessions at the Work Truck Show are “Lean 101: Straightforward Approach to Lean Implementation for Truck Equipment Upfitters” on March 6; “Fleet Management 101” on March 7; and “Lean 201: The Kata Journey — Daily Practice for Scientific Thinking, Mindset and Culture on March 8.”

Show organizers expect a strong turnout this year, “especially given the addition of Fleet Technical Congress sessions and the available Green Truck Summit activities.” That the 2018 Work Truck Show won’t compete with the triennial ConExpo-Con/

**“The mobile learning center provides a tangible demonstration of how companies can collectively work together to raise the awareness of career opportunities within a geographic area or industry segment.”**

— statement from NTEA

Agg trade show in Las Vegas shouldn’t hurt either.

The Indiana Convention Center’s sold-out exhibit hall of over 500,000 square feet will feature 500 exhibitors and include the Productivity and Fuels Pavilion, “which showcases companies displaying clean technologies and fuel utilization reduction solutions,” the NTEA said.

The Work Truck Show will return to Indianapolis in 2019. In January, the NTEA expects to share its confirmed schedule for 2020.

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



John Braxton, of Minneapolis-based Allegis Corporation, checks out a truck body at the Warner Bodies booth at the 2017 NTEA Work Truck Show.

File photo by Keith Norbury



# Maximize Your AVAILABLE PAYLOAD



Maintainer continues to innovate service truck body design, SAVING WEIGHT while still delivering the longest-lasting truck bodies in the industry.



Premium Bodies. ULTIMATE VALUE.



Crafting a Legacy of Premium Truck Bodies

SCAN HERE TO VISIT WEBSITE





# IT'S CALLED THE WORK TRUCK SHOW FOR A REASON



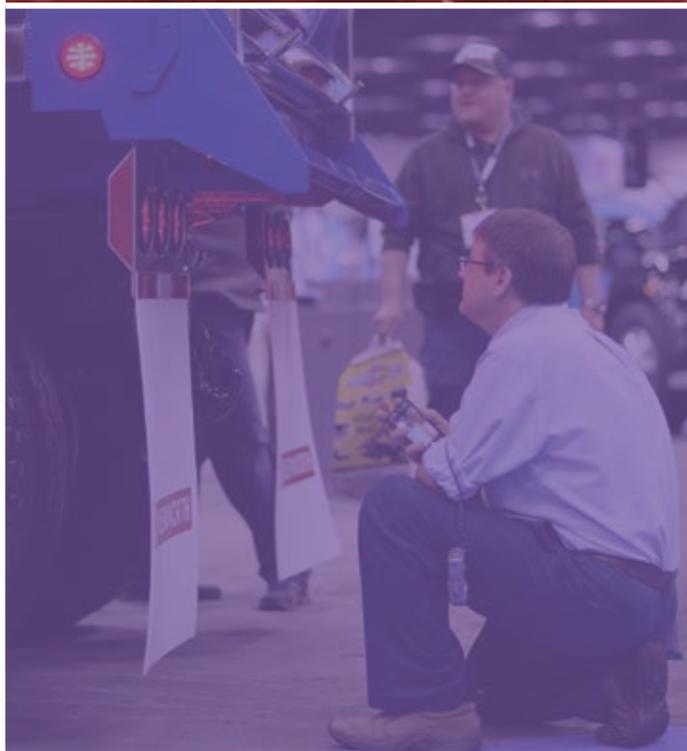
## Why attend North America's largest work truck event?

Experience the latest information for fleets on:

- Mitigating risk
- Staying relevant
- Improving fleet productivity and efficiency
- Leveraging your equipment supply chain and peers



Visit [worktruckshow.com/fleets](http://worktruckshow.com/fleets) for information on registration, educational sessions, exhibit hall and more.



**THE  
WORK  
TRUCK  
SHOW**

**GreenTruck  
SUMMIT**  
*The Future of Clean Commercial Vehicles*

**FLEET** | TECHNICAL  
CONGRESS

**March 6-9, 2018**  
Indiana Convention Center  
Indianapolis, IN

Sessions begin: March 6  
Exhibit hall open: March 7-9

Brought to you by  
**NTEA**  
THE ASSOCIATION FOR THE WORK TRUCK INDUSTRY



#worktrucks18 | [info@ntea.com](mailto:info@ntea.com) | 800-441-6832



## SHOW PREVIEW

# Show spotlights new products

**T**he 2018 Work Truck Show in Indianapolis this March is again shining a spotlight on new products.

As this went to press, 67 companies were listed in the New Product Spotlight. They included Altec Industries (2401), Chelsea Products Division (3011), DirectDrive Plus LLC (241), EZ Stak LLC (5891), Hino Trucks (4139), Line-X Protective Coatings (3067), Mack Trucks Inc. (3527), Maintainer Corp. of Iowa Inc. (3511), Miller Electric Mfg. Co. (5675), Muncie Power Products (3227, 3320), NTEA (3401), Ranger Design Inc. (4991), RKI Inc. (3139), Sage Oil Vac Inc. (3687), Superwinch LLC (5838), Taylor Pump & Lift (2971), TigerTough Group (139), Truck Covers USA (214), TruckCraft Corp (709), Vanair Manufacturing (3267), Venco Venturo Industries LLC (3411), VMAC (3677), Wilcox Bodies Ltd. (5651).

Companies in the show's New Exhibitor Pavilion, adjacent to the Ford Lunch Area, include American Truck Boxes LLC (5506), BG Products Inc. (5501), Eco Vehicle Systems (5608), Paccar Parts (5602), SlideMaster (5407), EMKA Inc. (5509), Casappa Corporation (5503), Haltec Corporation (5604), K&N Engineering (5511), and SmartLift USA (5600).

## Service body-related firms at 2018 Work Truck Show

**D**ozens of service body manufacturers and makers of accessories for service trucks are among the exhibitors at the 2018 Work Truck Show in Indianapolis this March. They include the following:

Altec Industries (2401)	Morgan Corporation (5139)
American Eagle Accessories Group (5839)	Morgan Olson (5239)
APSCO (1132)	Muncie Power Products (3227, 3320)
ARB 4x4 Accessories (720)	National Commission for the Certification of Crane Operators (5541)
Auto Crane Company (3259)	Palfinger North America Group (3559)
Auto Truck Group (4691)	Palmer Power & Truck Equipment (741)
Bedrock Truck Beds (5445)	Power-Packer (2635)
Bezares USA(4291)	Pride Bodies Ltd. (233)
Blue Ridge Manufacturing (2101)	Ramsey Winch (3263)
Boss Industries, LLC (3039)	Ranger Design Inc. (4991)
BrandFX Body Company (1141)	Reading Truck Group (4939)
CargoGlide (5791)	Rearview Systems LLC (2701)
Chelsea Products Division (3011)	Reelcraft Industries Inc. (4482)
CM Truck Beds (5183)	RKI Inc (3139)
Compressed Air Systems LLC (5480)	Rockport Commercial Vehicles (201)
Coxreels (4690)	Rugby Manufacturing Co. (3101)
CTech Manufacturing (319)	Sage Oil Vac Inc. (3687)
Dakota Bodies (4481)	Samlex America (820)
Decked LLC (241)	Sortimo by Knapheide (3739)
Dejana Truck & Utility Equipment Co. Inc. (911)	SpaceKap (101)
Diesel Laptops (728)	Splitz Manufacturing (333)
DirectDrive Plus LLC (821)	Stahl Truck Bodies (3119)
Eberspaecher/Espar (2431)	Stellar Industries Inc (5639)
Endura Paint (5955)	Supreme Corporation (1633)
EZ Stak LLC (5891)	Taylor Pump & Lift (2971)
Future Line Manufacturing (5439)	Terex Utilities (5359)
Getec Inc. (908)	Thunder Creek Equipment (5991)
Goodall Mfg. (3466)	Tiger Cranes / Service Trucks International (4281)
Go Power! (5758)	Truck Accessories Group (5339)
Hannay Reels Inc. (1805)	TruckCraft Corp. (709)
Heavy Motions Inc. (3574)	TruckOffice (809)
Hiab USA Inc. (2534)	Utilimaster Corp. (3049)
Highway Products Inc. (341)	Vanair Manufacturing Inc. (3267)
Hippo Multipower (2535)	Venco Venturo Industries LLC (3411)
Iowa Mold Tooling Co., Inc. (3427)	VMAC — Vehicle Mounted Air Compressors (3677)
Jobox (3881)	Warner Bodies (2947)
Knapheide Manufacturing Company (3741)	Western Mule Cranes (1043)
Kussmaul Electronics (5383)	Wilcox Bodies Ltd. (5651)
Liftmoore Inc. (4539)	WW Engineering Inc. (2530)
Lightning GPS (625)	
Maintainer Corp. of Iowa Inc. (3511)	
Miller Electric Mfg. Co. (5675)	
Monroe Custom Utility Bodies Inc. (5072)	



REACH WORKING HEIGHTS UP TO 37 FT. WITH QUICK AND EASY SET-UP OF PERSONNEL BASKET

PISTON AND ROTARY SCREW COMPRESSOR SYSTEMS UP TO 60 CFM & 175 PSI PRESSURE RATING

PALFINGER SERVICE CRANES AVAILABLE UP TO 14,000 LBS. CAPACITY WITH POWER OUTREACH UP TO 29 FT.

TRUE MECHANICS TRUCK PACKAGES OFFERED FROM 9 - 14 FT. WITH CAPACITIES UP TO 86,000 FT. LBS.

## SERVICE TRUCK SOLUTIONS MAXIMIZE YOUR UPTIME

Worldwide, PALFINGER stands for the most innovative, reliable and efficient solutions for use on commercial vehicles. Setting the industry standard for more than 90 years, Omaha Standard Palfinger (OSP) is a leading US manufacturer, offering one of the most comprehensive service truck solutions available from one supplier. For your work truck needs, PALFINGER-built PAL Pro Mechanics Trucks, Service Cranes, Air Compressor Systems, Personnel Baskets and Crane-reinforced Service Bodies and Platforms are all available through our reliable, nationwide distribution network.

Contact a distributor near you to learn more!

WWW.PALFINGER.COM  
NTEA Booth 3559



BY DAN ANDERSON

# SPEC MY TRUCK

## Maine man's new rig

Unconventional repairs and maintenance require a rugged service truck

**H**ere's the job description: travel all over Maine — for that state's Department of Agriculture, Conservation and Forestry's Bureau of Parks and Lands — to install, repair, and maintain boat-launch facilities. Some of the facilities are along the coast, some are on freshwater lakes buried deep in the woods. You'll be on your own, often miles from civilization, sometimes traveling private logging roads bulldozed out of the wilderness. What sort of truck would you spec for that job?

Joe Powers, maintenance coordinator for Maine's BPL, chose a four-wheel-drive 2017 Ford F450 with 6.0-liter PowerStroke diesel engine spinning a Ford six-speed automatic transmission.

**"My old truck had the welder mounted in the bed, but I had them put it up on the top for this one. That gives me a lot more room in the bed to carry shovels, big pry bars, chain saw, extra diesel fuel, extra gasoline, blocking, and all the stuff I might need when I'm miles from civilization."**

— Joe Powers,  
maintenance coordinator,  
Maine's Bureau of Parks and Lands

"This is my third Ford F450," Powers says. "We went with a diesel instead of gas engine for mileage and durability. My old truck had a diesel and averaged 11 to 11.5 miles per gallon, and this new truck got 12 miles per gallon on the trip home from the dealership. My old PowerStroke had 85,000 miles on it and never had a wrench on it for anything more than oil changes."

While he was pleased with the engine and transmission in his previous truck, Powers decided he needed four-wheel-drive to deal with some of the rugged roads he travels. With that in mind, he invited his supervisor to ride along on a trip in his old, two-wheel-drive truck for a job deep in the backwoods. They got stuck in the muck, and ... Powers's new truck came with four-wheel-drive.

"Sometimes you just have to show them why you need what you need," he says.

From Messer Truck Equipment in Westbrook, Maine, Powers spec'd an 11-foot Knapheide mechanic's service body outfitted with a 5,000-

pound Venturo ET18KX electric crane. Powers specified that the crane be mounted on the driver's side of the service body.

"At boat launches, most of the floating docks and stuff are on the driver's side as you back toward the water," he says. "Putting the crane on the driver's side keeps me from having to swing the boom over the body."

A Miller 275 Trailblazer welder/generator is mounted to the top of the rear, passenger-side compartment. Powers also has a Miller Model 30 spool gun that allows him the option of wire welding with either shielding gas or flux-core wire.

"Welding dock frames out of doors like I do a lot of the time, welding with (shielding) gas doesn't work," he says. "So I switch out the solid wire spool with gas, and use flux-core wire, if I don't decide to simply arc weld it with the big welder. My old truck had the welder mounted in the bed, but I had them put it up on the top for this one. That gives me a lot more room in the bed to carry shovels, big pry bars, chain saw, extra diesel fuel, extra gasoline, blocking, and all the stuff I might need when I'm miles from civilization."

Most of Powers's hand tools are Craftsman because, he says, "It's easier to find a Sears store to warranty a tool when you're on the road than it is to chase down a Snap-on or Mac guy." Hand tools and accessories are stored in the front, driver's side compartment of the service body in a CTech Manufacturing drawer unit. A Fastenal four-drawer storage cabinet rides on the adjustable shelves of the passenger-side front compartment, but may soon be shifted to another compartment.

"Those CTech drawers are so good, I really want to put another set on the passenger side," he says.

Powers carries a full complement of Milwaukee's trademarked M18 Fuel cordless tools. He says those tools "... give me three times the run-time on their batteries of any other cordless tool I've had."

A Fisher quick-mount snowplow push plate is mounted to the truck's frame, but has never had a snowplow attached to it. Powers fabricated a removable, metal-framed, wood-faced "push bumper" that slides and pins into the push plate's snowplow brackets for his unique needs.

"I use it to push floating docks into the water," he says. "It works slick."

A "headache rack" mounted behind the cab is on Powers's list of future truck accessories.

"It would be nice to have some white LED floodlights lights up there, maybe some emergency strobes," he says. "A lot of the marine jobs work best if I do them at high tide. That means sometimes I have to work after dark, and some LED floodlights on the rear of the box, and behind the cab, would really be nice."



Fastenal storage cabinet rides on adjustable shelves.



Sears Craftsman tools dominate this drawer.



Powers has a full complement of Milwaukee M18 Fuel cordless tools.



CTech drawers hold plenty of tools.



Joe Powers chose a four-wheel-drive 2017 Ford F450 with 6.0-liter PowerStroke diesel engine for his new truck.

Dan Anderson is a part-time freelance writer and full-time heavy equipment mechanic with more than 20 years of experience working out of service trucks. He is based in Bouton, Iowa.

# Tell us about your truck

We're always looking for service/mechanic truck owners, operators and mechanics to tell us about their vehicles and how they use them.

If you'd like your truck featured in a future Spec My Truck column, send an email to [editor@servicetruckmagazine.com](mailto:editor@servicetruckmagazine.com), with the subject line, "Spec My Truck." Just tell us a little bit about the truck. And include a phone number and the best time to reach you.

*Venturo ET18KX electric cranes does the heavy lifting.*



*Trailer hitch enables hauling of extra equipment.*



*Joe Powers uses his new service truck for boat-launch maintenance in Maine.*



*CTech Manufacturing drawer unit occupies a driver's side compartment.*



*Push bumper pins to the snowplow push plate brackets.*



*Miller 275 Trailblazer is mounted atop the rear passenger side compartment.*



*Not having a welder in the truck bed frees up space for shovels, pry bars, and other big tools.*



*Cover protects Miller 275 Trailblazer welder/generator from the elements.*



*Knapheide's 11-foot service body has plenty of cabinets.*

## TECHNOLOGY

# Scanning strategies revealed

STORY AND PHOTOS BY KEITH NORBURY

Using scanners, computer-assisted design software, and three-dimensional printers can help manufacturers large and small in developing new products or improving existing ones, according to Derek Ellis, a senior applications engineer with Computer Aided Technology Inc.

In a presentation on advancements in additive manufacturing technologies — 3D printing being a prime example — Ellis said the benefits to a manufacturer are “time and money,” adding that “first to market always wins.”

During a three-hour session at the 2017 Work Truck Show in Indianapolis, Ellis and two of his colleagues went into detail about how they use modern scanners in design, reverse engineering, and 3D printing.

Engineers discuss the use of additive manufacturing technologies in product design and reverse engineering

“Everybody in here has probably seen a 3D printer,” Ellis said. “But what we’re going to do is talk about the secondary applications that you can use still in the prototyping process before you go to manufacturing, where mistakes at that end of the spectrum cost you a lot of money.”

The product development lifecycle employed by Computer Aided Technology — which is headquartered in Buffalo Grove, Illinois — “starts with conceptualizing” an idea, followed by design, prototyping, and validation.

## Prototyping pays off

Spending \$2,000 on a prototype might seem like a lot of money, Ellis said. “However, when you start making mistakes or

“If you find out in this stage that your gate is in the wrong location, or an insert is in the wrong location ... that’s a cheap fix.”

— Derek Ellis, senior applications engineer, Computer Aided Technology Inc.



Derek Ellis, senior applications engineer with Computer Aided Technology, introduces a session on rapid prototyping at the Green Truck Summit held in conjunction with the 2017 NTEA Work Truck Show in Indianapolis.

there are design changes in manufacturing, your costs triple. Easily.”

A design can be as simple as a sketch on a napkin, a model made of clay or cardboard, or a free computer-assisted design program, Ellis said. But his company uses more complex CAD systems, like Solidworks, which can analyze a design to determine if it’s manufacturable.

“It doesn’t do us any good if even on the computer screen when we’re trying to put parts together they don’t fit,” Ellis said.

It also pays to produce a prototype at this stage, he said. “If you find out in this stage that your gate is in the wrong location, or an insert is in the wrong location ... that’s a cheap fix,” Ellis said.

Bob McGaughey, emerging products manager with Computer Aided Technology, revealed that he actually did put a gate in the wrong position on a 3D-printed injection mold. The cost of the lost material was only about \$150 fortunately.

“If that would have been tooling steel, you would have wrang my frickin’ neck,” McGaughey said to Ellis. “But because it was only 150 bucks worth of material, life was easy ... We just threw it away and printed another one the same day.”

Another use of the technologies is competitive product analysis. Just as it

sounds, this where you take a competitor’s product and analyze it by using a 3D scanner, said Bob Renella, an application engineer with Computer Aided Technology. That information can then be used to reverse engineer that product in a 3D CAD system, he said.

While that often involves expert tweaking, sometimes it’s even possible to take a scan directly to prototyping because most scanners create what are called stereolithography files, or STLs. “You can take an STL put it right on a 3D printer and print it,” McGaughey said.

## Analysis enables substitution

It is also possible to use such a scan to perform an FEA, which stands for finite element analysis. An example of that would be if someone wants to substitute a different material for a particular part.

“You can do those quick what-if scenarios,” McGaughey said. “So you can say, OK, I did this out of say, high-density polyethylene but then I want to do it out of glass-filled nylon. Or you can say, ‘Well, it really needs to be cast carbon steel.’ You just simply go in there, right click and change the material and run the analysis again.”

In one example that McGaughey recalled, they scanned parts of an International truck — hood, fenders, and grill among other things. But the most important piece of information they needed was to determine the clearance between the motor and the underside of the hood.

“So we just disconnected the hood, set the hood to the side, scanned the motor, put the hood back on, lifted it up and scanned the hood underneath. The software still remembered that the hood was down when it was first assembled,” McGaughey said. “So it snapped the bottom of the hood and the top of the hood together as if it was still assembled. Then I was able to see I had a six-inch gap between the sound covering underneath the hood and the top of the motor. What they were wanting to do was put a supercharger in there.”

## A variety of scanners

Ellis, McGaughey, and Renella brought a variety of 3D scanners to the presentation, including portable Go!Scan, HandyScan, and MetraScan devices from Creaform Inc. Headquartered in Lévis, Québec, Creaform is part of Ametek Inc., which acquired Creaform in October 2013. Ametek, which has annual sales of around \$4 billion, is headquartered in Berwyn, Pa.

A Go!Scan scanner provides color and texture but has “looser accuracy” than more advanced models. The Go!Scan 20 is for

continued on page 20

Bob Renella, an application engineer with Computer Aided Technology, demonstrates how to scan an auto part so that a three-dimensional image can be loaded into a computer-assisted design program.



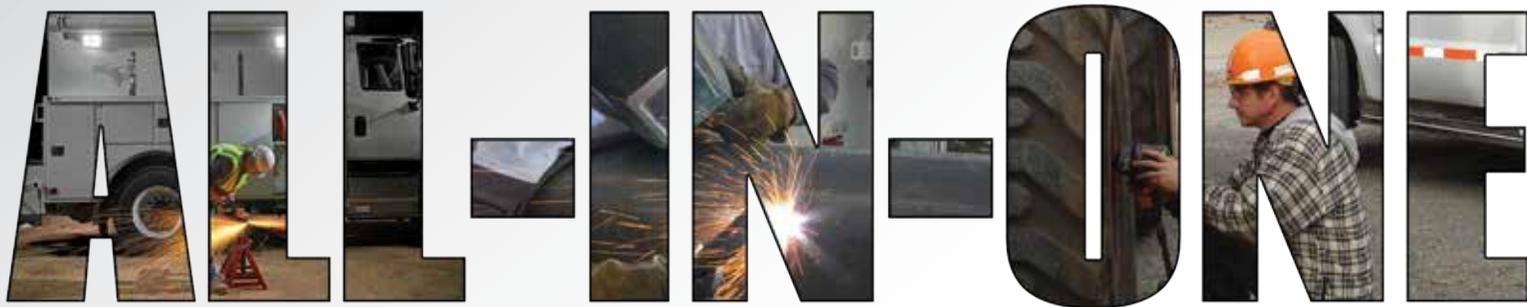
**DAKOTA BODIES**  
CUSTOM IS THE STANDARD



ALUMINUM | STAINLESS | GALVANNEAL

// **FOR EVERY TRADE**  
Customize your body for your job.

## Our Definition of



## is Different Than Others

Others claim to offer all-in-one power units, but when Vanair® says it – we mean it. Our Air N Arc® I-300 system delivers a rotary screw air compressor, generator, welder, battery booster, battery charger, and hydraulic pump – ready to go. With this convenient, lightweight, compact unit there is no need to buy an auxiliary hydraulic pump or welders for the functionality you need.

**No other company offers SIX FORMS OF POWER in one unit. That's an unbeatable ALL-IN-ONE Power System®.**



Imitated. **Not duplicated.**



LET'S GET STARTED >> 800.526.8817 [vanair.com](http://vanair.com)



## TECHNOLOGY

**Scanning** *continued from page 18*

small parts that can fit on a table, whereas the Go!Scan 50 would scan a table itself.

For semi-medium parts, they use a HandyScan 700, which is considered to be metrology grade — meaning it produces highly accurate measurements that meet International Standard Organization specs for quality control. For even larger parts, the scanner of choice is the MetraScan, which Renella said he used on recent job to scan cruise ship water inlet suction vents that were up to 40 feet tall.

“Using those two (smaller scanners) would have taken me more than a couple of days and a lot of headache to do,” Renella said.

At the Indy 500, small scanners are now used to inspect airfoils on the race cars, McGaughey said. What used to take up to half an hour per car when using aluminum templates now takes just five minutes with the scanner.

For most of the presentation, they focused on how to use the HandyScan 3D 700, which Renella said has an accuracy of plus or minus 30 microns and a resolution down to about 50 microns.

For the scanner to work requires affixing “positioning targets” to the part. These targets are preprogrammed into the hardware and software so that the scanner can recognize their diameter, thickness and reflectivity.

“The scanner itself is going to project a field onto the part, recognize those targets and start to create vectors from your parts, going back to your scanner,” Renella explained. “And then from there it can tell the relative distance of points across your surface on your part and it’ll start sending that back to your scanner.”

**Software looks familiar**

The software is where the data acquisition takes place, he added.

His demonstration used software called VXelements, which is proprietary to Creaform scanners.

“If you guys have ever used any CAD software, you’ll quickly recognize the user interface — it looks almost the exactly the same. That was the intended purpose,” Renella said. “They didn’t want you to spend a lot of time fiddling around with new software.”

Unlike other software that creates “point clouds,”



Bob McGaughey, emerging products manager with Computer Aided Technology, holds an auto part for application engineer Bob Renella to scan during a demonstration.

**“I’ve talked to the guys at a few other software companies and they all say that what we call the automagical button — hit it and all of a sudden you’ve got beautiful CAD models, exactly what you want — it’s 10 years off. But every time you hear that, that’s 10 years out.”**

— Bob McGaughey, emerging products manager, Computer Aided Technology Inc.

**CRITICAL PREHEATING FROM EBERSPAECHER**

Don't let winter conditions keep you off the road. Trust Eberspaecher heaters to keep you warm and keep your engine running smoothly. Eberspaecher's "New" Hydronic S3E coolant heater offers engine and cab preheating, ideal for your fleet of work trucks.

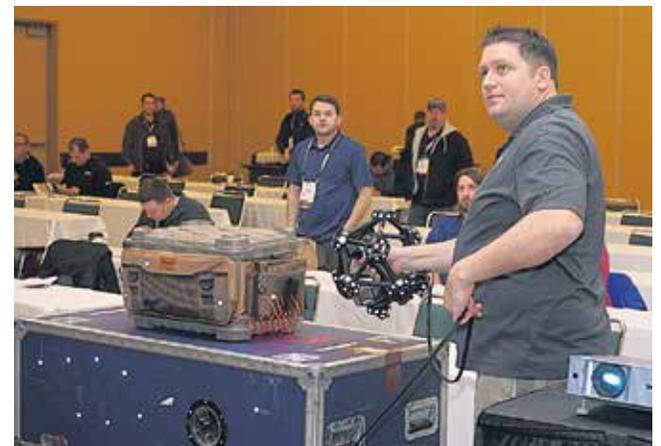
- 5kW | 17,500 BTU/hr output
- reliable warm engine starts
- engine off, instant heat & defrost
- preheat of critical fluids
- lower fuel costs, lower emissions
- increased productivity

www.eberspaecher-na.com  
800-387-4800



A WORLD OF COMFORT

 **Eberspächer**



Bob McGaughey, emerging products manager with Computer Aided Technology, uses a MetraScan 3D scanner from Creaform to scan a Plano case.

VXelements creates surfaces. Where the use of point clouds requires creating lines to connect the points, the surface-creating software “gives you a real time visualization or feedback while you’re scanning,” Renella said.

Despite the recent advances in scanner technologies, Maughey noted, the ability to scan complex objects like people — as depicted in the movie *Big Hero 6* — and create perfect duplicates without any software manipulation is a long way off.

“I’ve talked to the guys at a few other software companies and they all say that what we call the automagical button — hit it and all of a sudden you’ve got beautiful CAD models, exactly what you want — it’s 10 years off,” McGaughey said. “But every time you hear that, that’s 10 years out.”

**Preserving legacy patterns**

Scanning can also be used to get electronic data from sand-casting patterns, Ellis pointed out. Or a scan and reverse engineering can be used to tweak a product that was sitting on shelf.

Renella told of a company that had a warehouse with hundreds of foundry patterns, some predating the Second World War, but which had no associated CAD models or drawings. He asked the proprietor what would happen if a fire destroyed those patterns? “It would virtually put him completely out of business with one fell swoop of a flame,” Renella said. So he recommended scanning the patterns and backing up that data on multiple hard drives.

McGaughey cited a similar case of a furniture manufacturer that had five warehouses full of wooden patterns,



Jose Angel, a mechanical engineer with Auto Truck Group, demonstrates a 3D scanner at the company's booth at the 2017 NTEA Work Truck Show.

some as old as 125 years. After a fire destroyed one warehouse, "They are scanning the other four warehouses like maniacs," McGaughey said.

Later, in response to a question, Renella said that saving the data means that a new part can be reverse engineered in the future. Following up on that, McGaughey said it would be a good to begin with the 20 percent of parts that make up 80 percent of the company's profit.

"You think about what parts would I need on Monday morning to continue working? And you have somebody start reverse engineering those. You just start with a few and you start building your way up," McGaughey said.

Can an untrained 20-year-old worker do that scanning? an audience member asked.

"Absolutely," McGaughey said, adding later that he has let his daughter and nieces use a Go!Scan machine.

"Anybody in this room can come up here and get data," Ellis added.

### Reverse engineering takes time

Learning reverse engineering, however, requires two days of training.

Reverse engineering is much more complicated, as they proved during a demonstration of how to scan a Plano case as well as manipulate a file of Tonka truck that McGaughey had tweaked to fit the contours of a truck seat that Renella had scanned. (McGaughey had printed a 3D model of the Tonka but neglected to bring it to Indianapolis.)

By sending a mesh of the Plano model to the SolidWorks program, McGaughey was able to manipulate it, such as by stretching it or enlarging the size of a cupholder. Overall it had taken him 12 hours to produce three mock-up designs and one actual prototype. That didn't include the Tonka truck case, which he was able to model because he already had a virtual snapshot of it.

The nature of an item to be scanned determines how much manipulation it will require in CAD and how long that will take, he said earlier in the presentation.

"If I need a fully parametric CAD model of this with sketches, features, fillets, chamfers and everything else, you're probably going to take more time," McGaughey said. Some parts are simple enough that he can build a model in CAD just from basic measurements. "But there are some pieces of geometry like I don't even know where the hell to begin modelling this part," he added.

Reflective surfaces can play tricks with a scan, but that can be offset with a simple \$3 spray can of talcum powder — or a \$50 can of a proprietary spray. Creaform has also developed software that make the "rat's nest of digital noise" disappear even when scanning something highly reflective or with surfaces of high-contrast areas, McGaughey said. Following up on that, Renella said he was able to accurately scan a clear glass pitcher containing water and ice cubes. "There was enough condensation that broke up the transparency that you could actually measure the surface," McGaughey said.



## 3D printing methods explained

**W**hen it comes to the actual 3D printing itself, Computer Aided Technology LLC employs one of two methods, says Derek Ellis, a senior applications engineer with the company.

Polyjet uses a liquid coated polymer resin that is cured with an ultraviolet lamp to thermal set the plastic. Fuse deposition modeling, or FDM, uses thermal plastics than be melted down and reshaped over and over again.

"Once that UV lamp cures that resin, that's bonded, that's it," Ellis said during a presentation at the 2017 Work Truck Show in Indianapolis. "With thermal plastics, you technically can take that chocolate bar, melt it down, pour it back into a different mold and reshape it. (With) thermal sets, you can't print a part and get it back to grain and wheat."

By and large, Polyjet is designed for design intent and verification as well as light prototyping. FDM is more suited to manufacturing. However, Ellis noted that there is some overlap, such as for jigs and fixtures, marketing applications, and moderate-duty functional prototyping.

Polyjet has the advantages of fine feature details and materials that can be rubber-like or transparent. FDM materials are more durable, stable, and repeatable.

BMW is now using FDM to create tools to affix the badges on its vehicles in place of machined aluminum tools that would often scratch the paint, Ellis said.

Asked if there's a rule of thumb of when to employ 3D printing instead of more traditional methods like machining and casting, Ellis said the cut off would be if the job takes three days.

"And the reason I say three-day builds is because if you print one, the next morning you've made your mold and the third day you're casting," Ellis said. "And now you can just do casting."



Derek Ellis of Computer Aided Technology LLC discusses the Polyjet method of 3D printing.

Photo by Keith Norbury

A similar rules applies to a related technology called laser sintering, he said.

Another alternative to 3D printing parts is to 3D print a mold out of silicone and then pour material into it to create a prototype or perform short manufacturing runs. Such molds can be made using Polyjet or FDM. Polyjet is best for occasions where a smooth surface is required while FDM is more suitable for larger patterns.

Similarly, injection molds can be 3D printed for runs of 10 to 100 parts.

"Your objective in the prototype stage is to get a model for 1,400 bucks in a couple of days and start producing," Ellis said.



# SUMMIT

## CRANES

# REACH FOR THE PEAK

**SUMMIT CRANES ARE RATED TO LIFT 3,000 LBS - 14,000 LBS PROVIDING BOTH VERSATILITY AND STABILITY.**

**CRANE MODELS - 4416 · 6620 · 6629 · 10620 · 10629 · 12629 · 14629**

**CALL 888-780-9076 TO REACH YOUR FACTORY DIRECT SALES REPRESENTATIVE**

990 Vernon Rd. Wathena, KS 66090 · [www.summitbodies.com](http://www.summitbodies.com)

## NEWS

# NAFTA: Will trade deal go trucking?

Industry insiders on both sides of the Canada-U.S. border ponder the future of North American trade



Image by Marc Bruexelle/iStockphoto.com

Heading into 2018, the future of NAFTA remains a puzzle.

SAUL CERNOS

**W**ith the White House expressing strong nationalist sentiments, the North American Free Trade Agreement faces an uncertain future.

At press time, the U.S., Mexico and Canada remained in a deadlock, with President Donald Trump blaming the agreement for trade imbalances and job losses. Accusations include foreign steel threatening

national security and dairy subsidies jeopardizing farmers.

Provisions that allow the countries to appeal duties and limit the ability to impose import restrictions are also under fire. All this has truck and equipment manufacturers on both side of the U.S.-Canada border paying attention.

"NAFTA is certainly something we're watching very closely as things unfold," said Don Moore, director of government and industry relations with the Canadian Transportation Equipment Association, which serves Canadian trailer and vocational truck manufacturers.

## Good deal could be better

Moore said NAFTA in its current incarnation "has been a good deal for our sector and for all three economies in general."

On the other hand, he conceded changes could potentially prove beneficial.



"Today, when I sell cranes to our partner in Edmonton, it's a pretty simple process. We sell them to them, do the appropriate paperwork, it gets shipped through a broker, they get their cranes, and I get paid. But if NAFTA went away and they imposed an additional tariff on all service-related equipment coming into the country, that would be a problem."

— Walt Van Laren, president, Service Trucks International

"If the Americans get back to making this a better deal, making it more up to date, and really modernizing it — which seems to be the focus of the Canadian and Mexican governments and negotiators — I think it could be quite positive."

For instance, Moore said, language addressing electronic commerce can be found in other international trade agreements and could — as Moore put it — "bring it (NAFTA) into the 21st century."

But Moore expressed caution, saying cross-border trade is vital for the work truck and components sector. "To have a protectionist situation for any one of the participants could create nothing but headaches, because a lot of members depend on export into the U.S."

With the Canadian Dollar fairly stable at 75 to 80 cents to the U.S. dollar, conditions are good for imports and exports in both directions, Moore said. Some CTEA members produce goods that enjoy strong demand in the U.S. and also make considerable cross-border purchases, he added.

"If, all of a sudden, that valve got turned off or closed, so that we'd just be having a trickle back and forth, that would be detrimental to both sides and would really hurt industry," Moore said. "What everybody's hoping for is that businesses on both sides of the border realize how important NAFTA is and that the policymakers and



President Bob Hews (right) and Drew Hews of The Hews Company check out a Maintainer service body at one of their locations in Maine and New Hampshire.

Photo courtesy of The Hews Company

been very helpful to the movement of new vehicles. In fact, that content figure is about 70 percent today."

Still, Marrs said the NTEA sees NAFTA as needing modernization. "The original negotiations began more than 30 years ago," she wrote, noting current negotiations are addressing auto rules, dispute panels, government procurement and the sunset clause.

"The dissolution of NAFTA would be manageable by all three countries but would likely cause a temporary slowdown in economic growth and could cause a redistribution of manufacturing for major components and light-duty trucks," Marrs wrote.

## Open border praised

With locations in Maine and New Hampshire, The Hews Company distributes Maintainer, Reading and other work trucks across New England and into Canada and also imports equipment from Canada.

"We border on New Brunswick, Nova Scotia and Quebec," company president Robert Hews said, explaining he strongly favours borders that are as open as possible.

If NAFTA were to be discontinued, not only would the company be directly affected but so would many of its customers. "Many of our suppliers sell into Canada. They go back and forth. So it just doesn't make sense."

Hews said he isn't overly familiar with the agreement's terminology but from running the business believes it strikes "a good balance between Canada and the United States on swapping trade back and forth."

## Tariff would pose problem

In Iowa, Service Trucks International maintains a small volume of sales into northern Alberta's oil patch. "It's probably

# Rely on Reelcraft



Photo courtesy of Sage Oil Vac Amarillo, TX

Visit us at  
Booth 4482

**THE  
WORK  
TRUCK  
SHOW®**

Heavy duty  
hose reels  
Series 7000

### Dual pedestal hose reels ▶

Compact, heavy duty  
Series DP5000 / DP7000



Heavy duty  
100' hose reels  
Compact, mobile base  
Series HD70000 ▼



▶ Heavy duty hand  
crank hose reels  
Long hose lengths  
Series 30000

**NEW!**

### Durable hose and cord reels for:

- ✓ Air/Water/Lubrication
- ✓ Power and light
- ✓ Nitrogen dispensing
- ✓ Exhaust recovery
- ✓ Fuel dispensing
- ✓ Welding and more!

Made  
in USA

Photo courtesy of the NTEA

The consensus among National Truck Equipment Association subject matter leads is they hope the good relationship among NAFTA trading partners will continue but that the deal could use some modernization.

administrations realize they've got to continue to make this viable for everyone."

## NTEA favors modernization

In the U.S., National Truck Equipment Association communications director Summer Marrs consulted several subject matter leads in her organization and, in a written statement, said NAFTA trading partners currently have a good relationship the NTEA hopes will continue.

"Today, motor vehicles can move between Canada, Mexico and the U.S. without tariffs as long as they are made with 62.5 per cent content from the three NAFTA nations," Marrs wrote. "This has

**REELCRAFT®**

www.reelcraft.com 800-444-3134

low single digits," president Walt Van Laren said. "Very little, because of the Canadian dollar and the (low) price of oil."

STI also sells a small amount to Mexico, and Van Laren said he hopes NAFTA remains intact.

"Today, when I sell cranes to our partner in Edmonton, it's a pretty simple process. We sell them to them, do the appropriate paperwork, it gets shipped through a broker, they get their cranes, and I get paid. But if NAFTA went away and they imposed an additional tariff on all service-related equipment coming into the country, that would be a problem."

Van Laren also has a soft spot for Canada. He was born in southwestern Ontario and has family there. "At the end of the day, every person wants to support their area, their neighbour, their family, their region to the best that they can. But the capitalist part of all of this means wherever I can get something cheaper and make a bigger dollar is what I need to do. So sometimes those two things are at odds with each other."

### Balanced approach

From Milton, Ont., near Toronto, Wilcox Bodies Ltd. custom manufactures service and utility vehicles and exports across the U.S. directly and through a Pennsylvania distributor. Vice-president David Dick pegged U.S. sales

**"NAFTA is certainly something we're watching very closely as things unfold."**

— *Don Moore,*  
director, *Canadian Transportation Equipment Association*



at roughly 20 to 25 percent of the company's business and said NAFTA is very much on his radar.

Possible impacts if NAFTA was reworded or annulled would likely involve tariffs. "Things would get more expensive going in both directions," Dick said. "I don't think it would benefit anybody."

Wilcox has buffered itself as best it can through diversity. "We've balanced ourselves nicely so that if something did happen and dealing with the U.S. became more of a challenge, it would definitely affect us but we would keep going. It would be more of a challenge in terms of buying products into Canada."

Still, Dick expressed optimism. "I think their president and our prime minister will work together and be smart enough to keep this type of agreement going, knowing that it's great for both countries. But it makes us a little anxious. We don't think things will change and affect us that much. I don't know why we would mess with something that seems to work right now going both ways."

*Saul Chernos is a freelance writer based in Toronto.*



NAFTA is very much on the radar of Ontario-based Wilcox Bodies Ltd.

*Photo courtesy of Wilcox Bodies Ltd.*

**SWP**  
Southwest Products

QUALITY TRUCKS  
**That Work As Hard As You Do**

WE BUILD STOCK AND CUSTOM SERVICE VEHICLES: FUEL / LUBE / MECHANIC / CRANE TRUCKS



Our premier line of heavy duty service truck bodies are designed to withstand the demands of your most severe job sites.

**Need A Truck Now?** With the largest rolling inventory and fastest turnaround on stock orders, SWP can get you a truck NOW.

SEE OUR INVENTORY  
[www.SouthwestProducts.com](http://www.SouthwestProducts.com)

**602.497.0671**

## NEWS

Photos by Keith Norbury

# Easing the pain of tool usage

Tool company experts help mechanics identify the hazards in their toolboxes

ERIN GOLDEN

**W**hether you work out in the road or in the shop, there's a good chance you know a little something about the aches and pains that come from using the same tools day in, and day out.

Repetitive use injuries like carpal tunnel, rotator cuff tendonitis and trigger-finger tendonitis are often an unfortunate side effect of the job, particularly once you've been at it for several years. But a growing number of tool manufacturers, workplace safety specialists and employers are taking note, and trying to help ease the pain of a hard day's work.

The service truck industry is one place where safe tool use is getting a closer look, said Raffi Elchemmas, a senior manager at Brookfield, Wis.-based Milwaukee Tool.

"In a lot of industries, you have the older workers, men and women wanting to teach the way they did it to a new generation of workers," he said. "In this industry, we've found the older generation doesn't want those young workers using manual tools and developing the same kinds of injuries they did."

Elchemmas — who spoke on the topic at the recent International Construction & Utility Equipment Exposition in Louisville, Ky. — said he focuses on helping people identify injuries and what's causing them. That's because many people don't see the problems lurking in their own toolboxes.

**"Just because you buy an expensive battery tool or the newest and latest and greatest, doesn't mean you eliminate the problem. You still have to use it correctly."**

— Raffi Elchemmas, senior manager,  
Milwaukee Tool



Raffi Elchemmas, senior product manager with Milwaukee Tool, explains to Jason Allarie, of Winnipeg-based Nelson River Construction, how to grip a tool to avoid stress on the wrist.

knee-jerk reaction and it hurts your wrist," he said.

For service mechanics working in the field, it's an even bigger issue. Rusch said more service technicians are making the switch to cordless tools to avoid unpredictable hazards while working in unknown terrain.

Elchemmas said Milwaukee Tool has been focusing in on the development of new battery products that are designed with accident avoidance in mind. With tools like the company's high-torque impact wrench, the goal is to get extension cords and pneumatic hoses out of worksites to prevent injuries from tripping, slipping and falling.

## Taking a bite out of hazards

Even basic tools, like the small pen light a mechanic might use to get a closer look under the hood, are being reimagined to be more safe and practical.

"We put a bite zone on it because workers put it in their mouth when they're trying to do the task," Elchemmas said. "It's an FDA-approved bite zone."

As a part of his ICUEE presentation, Elchemmas highlighted the high-tech ways his company figures out how to make tools safer, including laboratories that focus on sound, force, vibration and ergonomics.

All of this work, Elchemmas and Rusch said, is particularly needed as the work force in the service truck industry and other related industries gets older.

"We're starting to see more and more of the older generation go to the cordless platform because it's an overall easier solution," Rusch said.

Elchemmas said he urges all tool users, regardless of age, to do a little research and opt for the tools that will help keep workers safe and injury free — rather than what might seem like the simple, quick or cheap option.

"People think that just because you buy the inexpensive hand tool, the manual tool, you're saving money," he said. "But what you're doing is decreasing your quality of life, and causing an injury. Saving \$20 or \$50 upfront is not the solution."

Erin Golden is a journalist based in Minnesota.



Stellar Industries Inc. employees work the 2016 Work Truck Show in Indianapolis.

File photo

## Iowa firm named legacy winner of "I Make America" campaign

**S**ervice truck manufacturer and accessory maker Stellar Industries Inc. was among 2017 legacy "I Make America" award winners at the recent annual conference of the Association of Equipment Manufacturers.

Headquartered in Garner, Iowa, Stellar joined seven other companies in receiving legacy award honors. Another 22 companies earned gold awards, said a news release from the AEM.

The legacy awards went to firms that had reached the gold level for five straight years.

Legacy winners included such industry heavyweights as Terex Corporation, Vermeer Corporation, and Deere & Company. Caterpillar Inc., Cummins Inc., JCB Inc., Kobelco Construction Machinery USA Inc., and Volvo Construction Equipment were among the gold winners for 2017.

"I Make America's success depends on the strong support of member companies and their employees to educate elected officials about the equipment manufacturing industry's role in driving economic prosperity and quality of life for all Americans," AEM president Dennis Slater said in the news release.

An employee-owned company, Stellar is also the parent firm of American Eagle Accessories Group, which makes air compressors and drawer systems for service trucks, according to the Stellar website. American Eagle also oversees the LubeMate and FuelMate lines of lube skids and lube trailers, which it acquired in 2013.

The theme of the 2017 campaign was "Our Products. Our Jobs." According to the AEM, the campaign drew a record number of elected officials to the association's member firms across the U.S.

For the first time, AEM members also participated in an "I Make America Fly-In," in which company executives visited 100 congressional offices and officials of President Trump's administration "to advance the industry's policy priorities," the AEM news release noted.

Member companies also hosted "a record number of elected officials" at their manufacturing facilities "to make the case for infrastructure investment, tax reform, free trade and a strong agricultural economy," AEM vice-president Kip Eideberg said in the release.



Raffi Elchemmas, senior product manager with Milwaukee Tool, talks about tool ergonomics during an education session at ICUEE 2017.

## Latest not necessarily ergonomic

One major issue: the assumption that any new tool is automatically made to fit and work well from a safety and ergonomic standpoint.

"Just because you buy an expensive battery tool or the newest and latest and greatest, doesn't mean you eliminate the problem," he said. "You still have to use it correctly."

In some cases, powering up can help ease the stress on your body. Eric Rusch, a senior product manager for fastening tools at Milwaukee Tool, said that's a common strategy for mechanics looking for a smarter way to use a wrench.

When using a wrench to un-stick a bolt, Rusch said, mechanics throw a great deal of pressure and body weight into the tool — a recipe for injury.

"That's where we're seeing a lot of benefits going to the cordless solution," he said. "You're not relying on your entire body strength."

Rusch said there's also a surge in the market for pneumatic tools, including from service managers. He said many are looking to get rid of air tools because of the tripping hazard that comes from hoses.

"Also if you are working and a hose gets stuck on a tire, or stuck on anything, once that hose is stuck it's a mostly

## New CEO and president named

**V**MAC Global Technology Inc. has made changes to its senior management team.

The company announced in December that former president Jim Hogan will become chief executive officer while former executive vice-president Tod Gilbert takes over as president.

"These changes are an important next step in the company's exciting future as VMAC continues to differentiate itself as the innovative leader in mobile compressed air," VMAC's executive president David Elgie said in a news release.

Hogan, who co-founded VMAC in 1986 with the late Tony Menard, will continue overseeing strategic matters, the release said. Gilbert will be responsible for day-to-day business activities.

In his new role, Hogan will return his focus to research and development, technological innovation, and process improvement "with the support of VMAC's engineering and design team," the release said.

Gilbert, who has a master of science degree, professional engineering designation, and a master of business administration, has been with VMAC since 2006.

The company — whose name stands for Vehicle Mounted Air Compressors — is based in Nanaimo, B.C. Its products are often mounted on service trucks.

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



Jim Hogan



Tod Gilbert

## Firm names new sales manager

**J**eff Steer has been named the new sales manager for Vanair Manufacturing Inc., the company announced recently on its Facebook page.

Steer was previously national sales manager for 10 years at Goodall Mfg. LLC, which Vanair acquired in January 2017.

In his new role, Steer will manage Vanair's regional sales managers and its independent representatives, the Facebook posting said.

Vanair, which manufactures air compressors and other work truck equipment, is based in Michigan City, Ind.



Jeff Steer

## Iowa service body maker president about to retire

**A**fter 21 years as president of Maintainer Corporation of Iowa Inc., Denny Michels will retire from the post at the end of 2017.

Shelley Morris, currently Maintainer's vice-president and general manager, will succeed Michels as president in January, the company said in a press release.

"I'm extremely proud of our Maintainer team," Michels said in the news release. "Our products, service and people all reflect our commitment to the customer and our values. We're customer-centric, and the glue that holds this together is our integrity. The Maintainer legacy is far greater than just one person. I know that Shelley Morris will be a great leader for Maintainer. He already is."

Maintainer grew from a handful of employees when Michels became president to more than 180 today. During his tenure, he led the acquisition and merger of the current facility in Rock Rapids, which produces Maintainer Custom Bodies emergency vehicles.

Morris joined the company in 2005 and has been general manager for the last six years. He has led manufacturing operations, plant expansions, sales and marketing efforts, and built a strong management team, the release noted. As president, Morris will focus on expanding the business, including its product base and adding new distribution channels.

"Denny has been an outstanding mentor," Morris said in the release. "The principles and values that have guided



Denny Michels



Shelley Morris

this organization under his leadership are instilled in me. The importance of quality, customer service, safety, and always doing the right thing won't change. I am excited about Maintainer's future."

Headquartered in Sheldon, Iowa, Maintainer has manufactured such products as custom-built mechanics service truck bodies, lube truck bodies, and cranes since 1976.



# ServiceTruck

THE MAGAZINE FOR MOBILE REPAIR AND MAINTENANCE

## SUBSCRIBE TODAY

### 6 Issues per year only \$36<sup>00</sup>

<http://www.servicetruckmagazine.com/subscribe>

## QUALITY MATTERS EVERY TIME.



### REELS BUILT TO LAST ON YOUR SERVICE TRUCK!

#### THE BEST, MOST RELIABLE HOSE, CORD, & CABLE REELS



VISIT  
US AT

THE  
WORK  
TRUCK  
SHOW  
2018

BOOTH#  
4690

MARCH 6<sup>TH</sup> - 9<sup>TH</sup>  
INDIANAPOLIS, IN

MADE IN THE  
USA  
SINCE 1923

FOLLOW US:



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

## NEW PRODUCTS

# Hose reel model has new sprockets

**N**ew gear-reducing idler sprockets have been introduced for the 1195 Series electric motorized hose reels from Coxreels.

The new sprockets, which fit an optional three-way pin lock, reduce the rewind speed, which increases motor torque, says a recent news release from the manufacturer.

These all-steel chain sprocket assemblies come in motor-to-drum ratios of 1:2, 1:3, and 1:4, the release notes, adding that “each ratio will effectively slow down the rewind speed of the drum by a multiple of the ratio factor and will increase the effective motor torque by the same factor.” That provides safety and control during rewind of the two-inch diameter hose.

The sprockets, which have a corrosion-protective coating, are mounted on a zinc-plated steel axle “and rotate on two self-lubricated bronze bearings.”

The 1195's electric rewind versions now have 1:3 gear reduction as standard. Non-reduced models for use with electronic speed reducers are available on request, the company says.

For more information about Coxreels, which is headquartered in Tempe, Ariz., visit [www.coxreels.com](http://www.coxreels.com).



The 1195 Series electric motorized hose reels now has gear-reducing idle sprockets.



# New load-sense valve released

**A** new product has been added to the valve line of Muncie Power Products. Muncie's new L125 is a post-compensated, sectional, load-sense valve that has a 33 gallons per minute nominal flow rate, says a news release from the manufacturer.

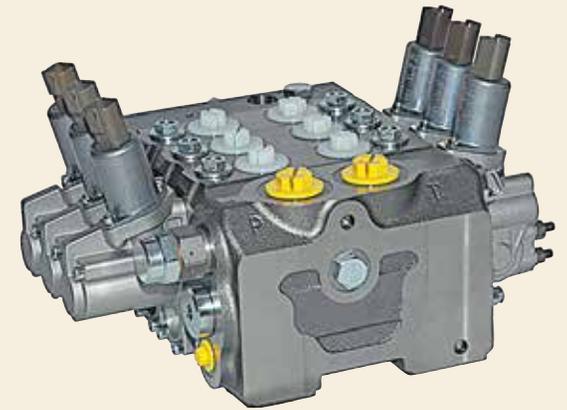
The inlet of the L125 has a maximum flow rate of 40 gpm, while its work sections have a maximum of 26.4 gpm.

“The L125 features good flow sharing parameters and multiple spool flow options,” the release says.

It comes in manual or electro-hydraulic shift versions.

Applications of the L125 include on truck-mounted and forestry cranes, according to Muncie, which is headquartered in Muncie, Ind.

For more information, visit [www.munciepower.com/L125](http://www.munciepower.com/L125).



The L125 features multiple spool flow options.



## CALENDAR

## JANUARY 2018

**Jan. 15-19, 2018**

**Associated Equipment Distributors Summit & Condex**

**The Mirage, Las Vegas, Nevada**

“The AED Summit is strictly for dealers, manufacturers and suppliers to the equipment distribution industry, end users do not attend this event.”

<http://aednet.org/summit/>

**Jan. 20-28, 2018**

**North American International Auto Show Detroit**

**Cobo Center, Detroit, Mich.**

“At NAIAS you have the opportunity to see up-close the vehicles and technologies that will shape the future automotive landscape.”

<http://naias.com>

**Jan. 23-26, 2018**

**World of Concrete**

**Las Vegas Convention Center, Las Vegas, Nevada**

“Leave with the core knowledge and latest equipment you need to win more jobs and strengthen your business.”

<https://worldofconcrete.com>



World of Concrete returns to Las Vegas in January 2018.

## FEBRUARY 2018

**Feb. 2-3, 2018**

**Mid-West Truck & Trailer Show**

**Peoria Civic Center, Peoria, Ill.**

“Since 1962, the Mid-West Truck & Trailer Show has provided one of the finest platforms to showcase products and innovations of the trucking industry.”

<http://www.midwesttruckshow.com/>

**Feb 13-15, 2018**

**World Ag Expo**

**International Agri-Center, Tulare, Calif.**

“We are here to encourage the newest conversations, inventions and innovations in the world of ag so that the dealer, the producer and the consumer can all come out on top.”

<https://www.worldagexpo.com>

**Feb. 14-17, 2018**

**National Farm Machinery Show**

**Kentucky Exposition Center, Louisville, Ky.**

“Nearly every major line of farming equipment will be on display allowing attendees to compare products side by side.”

<http://www.farmmachineryshow.org>

**Feb 18-20, 2018**

**IEDA Annual Meeting & Expo**

**Omni Hotels & Resorts Championsgate, Orlando, Fla.**

“Bringing together reputable IEDA member dealers and industry professionals from across the globe.”

<http://iedagroup.com/orlando-annual-meeting/>

**Feb 19-21, 2018**

**The Rental Show**

**Ernest N. Morial Convention Center, New Orleans, La.**

“Features construction/industrial

equipment, general tool/light construction equipment and party/special event equipment.”

<http://www.therentalshow.com>

**Feb 21-24, 2018**

**Water & Wastewater Equipment, Treatment & Transport Show**

**Indianapolis Convention Center, Indianapolis, Ind.**

“Explore the latest technology, the newest equipment, and the best ideas.”

<https://wwettshow.com>

**Feb. 22-24, 2018**

**80th annual Oregon Logging Conference**

**Lane County Convention Center and Fairgrounds, Eugene, Ore.**

“Every year manufacturers and dealers around the world exhibit the latest technology at the largest inside and outside equipment show west of the Mississippi.”

<http://www.oregonloggingconference.com/>

**Feb. 22-24, 2018**

**The Precast Show**

**Colorado Convention Center, Denver, Colo.**

“The one place where you can find the industry's most important suppliers and foremost equipment experts under one roof.”

<http://precast.org/theprecastshow/>

**Feb. 27-March 2, 2018**

**Specialized Transportation Symposium**

**Hyatt Regency St. Louis at the Arch, St. Louis, Mo.**

“Beyond education sessions, the meeting features an exhibit center showcasing over 40 companies and many networking opportunities.”

<http://www.scranet.org/SCRA/Events/>

**Feb 28-March 2, 2018**

**Ag Expo**

**Exhibition Park, Lethbridge, Alta.**

“More than hundreds of companies who will exhibit their products and services in this world wide show.”

<https://10times.com/ag-expo>

## MARCH 2018

**March 6-8, 2018**

**World of Asphalt**

**George R. Brown Convention Center, Houston, Texas**

“The industry's leading manufacturers and service providers in the aggregate, asphalt, pavement maintenance, and traffic safety industry sectors come together at World of Asphalt to showcase their latest products and technologies.”

<http://www.worldofasphalt.com/>

**March 6-9, 2018**

**Work Truck Show**

**Indiana Convention Center, Indianapolis, Ind.**

“North America's largest work truck event is your once-a-year chance to see all of the newest industry products.”

<http://www.ntea.com/worktruckshow/>

**March 22-24, 2018**

**Mid-America Trucking Show**

**Kentucky Exposition Center, Louisville, Ky.**

“The show attracts attendees and exhibitors from throughout the United States and across the globe.”

<https://www.truckingshow.com>

**March 27-29, 2018**

**Mid America Farm Exposition**

**Tont's Pizza Events Center, Salina, Kansas**

“Over 300 exhibits are on display representing approximately 275 companies from around the United States.”

<https://salinaxcoc.wliinc24.com/events/53rd-Annual-Mid-America-Farm-Exposition-9506/details>

# SUMMIT

## TRUCK EQUIPMENT

## REACH FOR THE PEAK!

NTEA Work Truck Show  
Kenworth Truck Booth #1401



*Our man bucket service trucks help you reach higher levels of service and safety.*



## ELEVATE YOUR SERVICE FLEET WITH THE SUMMIT ADVANTAGE!

- **CUSTOM MANUFACTURING** - Truck bodies designed to fit your application.
- **WORK-READY TRUCKS** - Largest inventory of work ready service trucks in North America!
- **ADVANCED SAFETY SYSTEMS** - Safeguard personnel and equipment with industry leading safety systems.
- **FACTORY DIRECT SALES** - When you buy a Summit you are buying factory direct.
- **IN-HOUSE FINANCING** - Finance programs tailored to the field service industry.
- **NATIONWIDE SERVICE** - Summit factory supported network of service providers to keep your bodies performing in the field.



VIEW OUR INVENTORY ONLINE OR CONTACT YOUR REGIONAL SALES REPRESENTATIVE

990 Vernon Rd. Wathena, KS 66090 • 888-780-9076 • [www.summitbodies.com](http://www.summitbodies.com)

**Wilcox**  
— Bodies Ltd —

Come see us at  
Booth 5651

**THE  
WORK  
TRUCK  
SHOW**

# STEEL & ALUMINUM TRUCK BODIES



Winner of the 2016 Large Business  
of the Year Award by the Milton  
Chamber of Commerce



## Backed by our 7 Year Warranty

Designed from experience since 1962 and built to a higher standard of quality, each of our truck bodies is crafted to make sure your job is done smoothly, effectively and safely.

Wilcox Bodies are built to last.

That means they are built to a higher standard -

**The Wilcox Standard.**



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

TOLL-FREE  
**1-888-294-5269**