

TRUCKTECH

CANADA'S FLEET MAINTENANCE MAGAZINE

FALL 2017



SOMETHING IN THE AIR

OVER-THE-AIR DATA
TRANSFORMS THE SHOP

Burning Questions

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CANADA'S FLEET MAINTENANCE MAGAZINE

is written and published for owners, managers and maintenance supervisors of those companies that operate, sell and service trucks, truck trailers, and transit buses.

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Software and parameter updates that once meant days of downtime can be completed remotely on emerging equipment.
Cover photo: Detroit Diesel



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SOMETHING IN THE AIR

Engine manufacturers are beginning to move software and parameter updates out of the shop and over the air.

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Be Smart, Buy Smart

Counterfeit parts remain an issue.
You should be concerned.

By Rolf Lockwood

There's a serious issue that's been around for ages, yet it always seems to sit under the radar: counterfeit, will-fit, or knock-off truck parts.

There's a difference between those three, but in the end, one old rule applies. You get what you pay for.

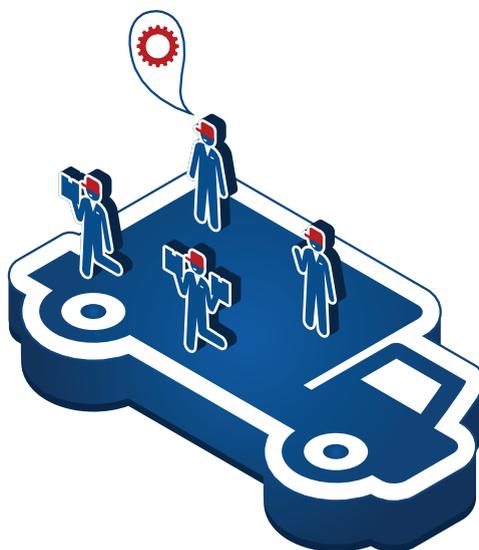
I'm reminded of my long-gone grandfather who drilled two rules into me. One, if the job's worth doing, it's worth doing right; and two, it's never worth it to buy cheap shoes. He was right on both counts.

So when you see a brake drum or a trailer light or a wheel fastener that's cheaper than normal, cheaper than it ought to be, your too-good-to-be-true antennae should be picking up a signal. It's likely not worth it.

Some cheaper parts, usually made offshore in places like India and China, might well offer value for your money, such as those made to create a cheaper product lineup for a truck OEM's aftermarket arsenal. They'll generally be carefully sourced; they just won't last as long. But this is still buyer-beware territory.

An out-and-out counterfeit is potentially a source of real woe, not to mention the illegal side of it that robs the legitimate manufacturer of rightful profit and can mar the company's good name.

If you're doubting me here, just think about this: hundreds of people have been killed over the years in air crashes blamed not on storms or terrorists but on "unapproved parts". The U.S. Federal Aviation Administration keeps track of such things, of course, and as of a few years back it blamed nearly 200 airplane accidents on poor-quality counterfeit or knockoff parts that just weren't up



**Hundreds of
people have
been killed over
the years in air
crashes blamed on
unapproved parts**

to the manufacturer's designed criteria.

The problem was big enough that the FAA established the 'Suspected Unapproved Parts Program Office' to deal with the issue.

I know of one truck maker that bought wheel fasteners from a cheaper-than-normal source for use on its assembly line. The wheel nuts in question had been correctly marked, but metallurgically they weren't what they pretended to be. They'd been bought offshore, in good faith of course, but the quality was sufficiently low that

they caused a wreck and killed a car driver in the process.

I happened to be in the plant manager's office when he took the call informing him of the crash investigator's conclusions blaming the fasteners. He was devastated, nearly brought to tears. Innocent but oh so guilty.

If it can happen to a major truck-maker with a big purchasing department, the individual truck owner is even more easily caught out this way.

To define things a little better, a "counterfeit" part is exactly what the word implies – it's a part made and packaged to look exactly like the real thing. Sometimes they're very hard to tell from the actual OEM component because the box has been printed as an exact replica, and the part number is correct. The piece itself may be hard to distinguish as a copy even if you look at it side by side with the real thing. In some cases, only a metallurgical test would divulge the counterfeit's real nature.

Your only defence is to deal with reputable suppliers who, we hope, have done their own homework. And, again, to distrust anything that sounds too good to be true. There simply ain't no free lunch.

A will-fit part, perhaps better called a knock-off, will not pretend to be anything but a cheaper version of the original, but it may claim to be just as good. Almost inevitably, it isn't. Nowhere is this more troublesome than with brake system components, precisely where you can't afford mistakes with poorly manufactured parts.

Obviously, you owe it to yourself – and everyone around your trucks on the road – to buy carefully. 🚚



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Electronic inspections being explored

Several jurisdictions are beginning to investigate the information technology needed to introduce recently defined Level VIII Electronic Inspections, the Commercial Vehicle Safety Alliance reports.

The voluntary standard guides inspections that would be conducted wirelessly, while a vehicle is in motion, and was approved during a workshop on April 27. Ultimately, it's meant to increase the number of interactions with motor carriers, and help enforcement teams focus on carriers with critical safety violations. Carriers with a clean bill of health, meanwhile, could communicate compliance data in real time and bypass roadside inspections.

The inspections governed by the standard would largely focus on documentation including information on a driver's licence, Medical Examiner's Certificate and Skill Performance Evaluation certificate, Record of Duty Status, and hours of service compliance. Vehicle information to be collected will include the USDOT or NSC number, power unit registration, operating authority, Unified Carrier Registration compliance, and federal out of service orders. All that will need to be combined with a descriptive location including GPS coordinates.

Say hi to Huayi DC

Huayi Tire Canada has opened its first Canadian commercial tire distribution center in Vancouver, slashing the delivery times for Double Coin Holdings TBR and OTR tires.

"This new distribution center is the backbone of our expansion beyond our factory container direct program," said John Hagg, Huayi's vice president – sales and operations. "A container of tires can take as long as 90 days and sometimes longer to get to a customer. Our new Vancouver facility will get commercial and OTR tires to them much sooner – within seven to 10 days, even to our

Platooning tests are underway

Transport Canada, with support from PIT Group, has gathered another round

of data about the value of truck platoons following a series of tests run this summer at the Motor Vehicle Test Center in Blainville, Quebec.

The same team first tested three-truck platoons in 2016, and this year is expanding the research to include a wider range of tractor-trailer configurations, speeds, following distances, weights, and traffic conditions. Fuel consumption was measured using the Technology and Maintenance Council's widely recognized test procedure.

"Platooning is an important step towards autonomous vehicles and to realizing the potential to reduce fuel consumption, eliminate highway congestion and improve safety," said Yves Provencher, director, market and business development of PIT Group. "This year's testing program will provide a valuable understanding of the real savings potential of platooning."



(File photo)

customers in the eastern provinces."

The new site can hold 15,000 tires, the company says.

Wabash purchases body builder

Wabash National is purchasing Supreme Industries – the second-largest maker of truck bodies in the U.S. – as an answer to the growing e-commerce segment.

The cash offer is valued at US \$21 per share, which equates to an equity value of \$364 million and enterprise value of \$342 million. The Wabash portfolio includes dry freight vans, refrigerated vans, liquid and dry bulk tank trailers, and platform trailers.

The acquisition adds Supreme's product portfolio, distribution network, and manufacturing capacity to Wabash National's business, which includes composite technologies, lean manufacturing expertise, engineering, and supplier relationships, the company says.

Bayview moves to Jacksonville site

Bayview Kenworth is moving into Jacksonville, New Brunswick with a new 19,000 square-foot parts

and service dealership.

Located just north of Woodstock, the facility will have eight service bays and a 2,500 square-foot parts department, but will also boast a drivers' lounge complete with showers, a large flat-screen television, and vending machines.

The dealership is off Exit 184 on TransCanada Highway 2 in the north-western part of New Brunswick, and joins Bayview Kenworth locations in Bathurst, Fredericton, Moncton, and Saint John.

Mack certifies its 100th Uptime Center

Mack Trucks has certified its 100th Certified Uptime Center, which recognizes dealer locations that embrace standardized workflows and processes as well as redesigned service bays.

The designations were first unveiled in January 2016.

Features of the centers include uptime bays that are reserved for trucks that require less than four hours of work. And internal research shows that the locations have also increased shop efficiency by 24%, and reduced check-in times by more than 40 minutes.



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Bilyea places third at Ryder competition

Ken Bilyea was the only Canadian at the Ryder 2017 Top Technician competition, but he still managed to secure a third place showing at the event.

It was the London, Ontario technician's fourth appearance at the competition. He placed second in 2016.

"I'm an old technician, but I always like to have a new challenge," he said. "Top Tech has made me a better technician."

Top Tech is divided into 10 timed stations run by vendors, in which each competitor must diagnose a problem or bug with the truck, and in most cases repair it. Each technician has 30 minutes to make the magic happen.

Mudflap flap suit settled

Fleet Engineers has been cleared in a lawsuit with Tarun Surti and Mudguard Technologies over the design of AeroFlap mudflaps.



The AeroFlap replaces standard mudflaps with a slotted design, promising better aerodynamics and reduced road spray.

Fleet Engineers had claimed Mudguard "committed tortious interference" with business relationships, while Mudguard counterclaimed with the patent infringement case and breach of contract. Judge Paul Maloney ruled that the AeroFlap doesn't infringe on US Patent RE44,755, and denied Mudguard's counterclaims.

Breadner to carry Stoughton reefers

Breadner Trailer Sales has been named the exclusive dealer of Stoughton refrigerated trailers in Ontario and Quebec.

The Breslau, Ontario-headquartered business has been selling Stoughton dry vans for almost 30 years.

Production of Stoughton's new

Daimler engineers print metal part

Engineers working for Daimler's European truck brand, Mercedes-Benz Trucks, have successfully used a 3D printer to create a metal thermostat cover for Unimog models – proving a process that could reshape the way spare metal parts are produced and distributed.



(File photo)

With the potential of decentralizing production, 3D printing could improve parts availability, shorten delivery times, and reduce warehousing and distribution costs, the company notes. Daimler's brands in North America include Freightliner and Western Star.

The customer services and parts division began working with automotive 3D printers about a year ago, creating aftermarket and replacement plastic parts. Now working with metal, the 3D printers appear ready to produce small numbers of mechanically and thermally stressed components.

Put another way, different shapes of metal components can now be produced at the touch of a button – beginning with rarely ordered aluminium parts that match the density and better the purity of conventional die-cast aluminium parts. This could apply to peripheral metal engine parts, in-engine parts, cooling system components, transmissions, axles or chassis, the company says.

Unlike the Selective Laser Sintering process used with plastics, the metal printing uses something called Selective Laser Melting. To make the thermostat cover, the powdered aluminium/silicon material is applied in layers and melted with one or more lasers.

line of refrigerated trailers – to be unveiled during the North American Commercial Vehicle Show in Atlanta, Georgia – begins in the first quarter of 2018. Breadner offered early insights on design spec's and was involved in testing prototypes.

Timken acquires Groeneveld

The Timken company – producers of engineered bearings and mechanical power transmission products – is acquiring Groeneveld Group, an automatic lubrication manufacturer, for approximately \$280 million.

"The acquisition of Groeneveld will further expand our presence in the automatic lubrication systems space,

which we entered in 2013 with our acquisition of Interlube," said Richard G. Kyle, Timken president and Chief Executive Officer. "Groeneveld will bring a strong brand and management team, a global customer base and an industry-leading product portfolio that has an attractive market position in off-highway equipment and heavy trucks."

Over the last five years, Timken has diversified its portfolio beyond bearings, adding gearboxes, chain, belts, couplings, lubrication systems, industrial clutches and brakes, and a variety of industrial services to its portfolio. Brands include Timken, Philadelphia Gear, Drives, Lovejoy and Interlube. **TT**



Setting up Shop

Erb Group corporate fleet director Jim Pinder walks us through the process of designing a new shop

By James Menzies



Designing and building a new shop is an exciting experience for any fleet maintenance manager. You have an opportunity to gain efficiencies, make the place your own, and create a work environment that's more attractive to technicians. It can also be daunting. You are responsible for an enormous budget, and you'll be forced to live with any mistakes or oversights for a long time.

For Jim Pinder, corporate fleet director at Erb Group, the opportunity to build a new shop at the company's Baden, Ont., headquarters was too good to pass up. But first, he had to make the business case to management. This meant tracking time lost shuttling trucks and trailers between existing shops in Baden, Ont., and nearby New Hamburg, the company's former head office and where many trucks still resided. Pinder went so far as to measure the actual fuel economy achieved during these equipment moves considering cold starts and slow road speeds, and other associated costs, including the liability exposure of constantly bobtailing and shuttling

trailers between yards in the winter.

"It was only nine kilometers but that distance might as well have been a hundred miles, because you're always struggling to get the mechanics where the trucks are, or the trucks where the mechanics are," Pinder explained.

When management approved the budget in mid-2013, Pinder set to work coming up with a design for the new shop. He visited others and tried to borrow some best practices. He opted for LED lighting to reduce energy costs.

"This LED lighting gives us the ability to dim the lights. We can set it at 10% and it never goes out so the shops are never dark. It gives us the flexibility to keep the lights on for safety but you're not burning hydro when you don't need to. We can customize the light as to the amount of lumens we're getting out of them," Pinder said, adding the energy savings have been significant.

The new facility would house three different shops: one for trailers, another for trailer refrigeration units, and a third for trucks. It also features a storage area for refrigerated trailer panels, a parts room, training room, lunchroom, men's and women's restrooms and a

boardroom. The goal throughout was to create a good working environment for technicians and to create a sense of camaraderie. The new workplace has helped Erb Group not only attract, but also retain technicians.

"We had a gentleman who was working with us in our trailer shop over in New Hamburg and he was ready to retire," Pinder recalled. "We moved over here where we have heated floors and a bright environment and he's gone down to four days a week, but he did not retire, he stayed with us. He's a great teacher and coach for us. So, we've been able to increase the technical skill level in our shops just by being in a new shop."

The new facility also allows Erb to offer better training, something younger technicians especially are constantly demanding.

"That's one of the biggest things you hear from technicians when you're interviewing them and they're interviewing you. They all want to know, 'What training do you have?' 'What's available to me?' 'How can I move up?'" Pinder said. The formal training room allows him to bring in suppliers to offer training in a classroom-type setting.

The new building also creates greater potential for attracting female technicians. None of the 58 technicians currently working there are women, but Pinder installed ladies washrooms and locker rooms in hopes of changing that.

Safety was also a priority when designing the new shop. A walk through the shop reveals cords and hoses are kept off the ground, and technicians can frequently be seen sweeping the shop floors. An automated sweeper was purchased and is shared between the three shops.

“Within the Erb Group of Companies, our biggest accidents are caused by trips, slips and falls,” Pinder said. “So, we really make sure that we have places to hang up airlines. You’re not just dropping them over garbage bins or on the end of a bench. It helps give the technicians some place to put stuff and it becomes habit, so you don’t end up with them laying all over the floor to be stepped over.”

Technicians were asked in advance if they preferred working with hoists or open pits. The consensus favored pits. They’ve been fitted with LED lighting on both sides to eliminate dark spots. Sliding steps are mounted to a concrete track to provide elevation.

“So, there’s no need to have ladders down there, or wooden boxes or plastic milk cartons to stand on,” Pinder reasoned.

Employees had a hand in developing lifts used for servicing trailer refrigeration units, which were engineer-ap-



Erb technicians servicing trailer refrigeration units now have solid lifts approved by an engineer to work from.

proved and safer than the construction scaffolding they previously used.

“They don’t need to stand on a ladder, and they don’t need to stand on a cardboard or plastic box to get any extra height,” Pinder explained, thanks to an electric-over-hydraulic lift.

The new Erb shop opened in February, 2015, and Pinder said the anticipated benefits have been realized. The maintenance operations are more efficient, the recruitment and retention of skilled technicians has improved, and Pinder’s convinced the overall skill level of the 58-person team has also been enhanced. The shops are better organized, with computer terminals replacing paper-based tracking systems. Technicians are spending more time working on equipment, and less time waiting for trucks and trailers to be shuttled over from New Hamburg.

Regrets? He has a few. The shop ceiling is two feet higher than the

previous one, but Pinder wishes he’d gone higher still.

“We could’ve used a little more height,” he admitted.

The company also learned the 15-amp circuit breaker in the trailer shop wasn’t sufficient.

“We had guys moving into a brand new shop, we’ve been in there three days, and a breaker’s blown,” Pinder recalled. “We got the electricians to come back in, looked at what we needed, then we went to 20-amp. The wiring was sufficient for 20-amp, we just had to change the breaker and the plugs in the wall.”

Only the trailer shop was upgraded to 20 amps; the others haven’t had any issues. However, Pinder said in hindsight he’d go 20-amp right across the facility.

“That would be one of the things that I would have changed for the whole building,” he acknowledged. ■■

FAST FORWARD
PART II

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REMOTE P
DOWN

Imagine if every time a software update became available for your smartphone, you had to go to the store and leave your phone for two-and-a-half days to have the installation completed. Chances are, few of those updates would ever be installed and any benefits contained within would go unrealized.

And that's exactly what's happening today, with the majority of heavy-duty trucks on the road. Ash Makki, product marketing manager with Volvo Trucks North America, says 75% of the trucks

currently on the road aren't running the latest available engine software updates. These software updates – typically released by engine manufacturers two to four times a year – are important, as they can enhance engine performance and reduce the likelihood of fault codes being generated.

But the average downtime incurred to install the updates by traditional methods is 2.3 days, Makki explained. That's about \$2,500 in lost revenue per truck every time an update is required,

or a total cost of US\$126,500 a year for a 25-truck fleet. Is there any wonder most trucks are running outdated software?

Engine manufacturers are addressing this by introducing over-the-air (OTA) software and parameter updates. Navistar's International Truck was the first to launch this service.

"It's the opportunity to put new software on your engine controller without having to take your truck to the dealership," explained Terry Kline, Navistar's senior vice-president and chief information



THERE'S SOMETHING IN THE AIR

Engine manufacturers are beginning to enable software, parameter updates out of the shop and over the air

PROGRAMMING
LOADING

67%

By James Menzies

officer. "And that software controls everything from shifting patterns, to emissions, to speed limiters, to the horsepower of the engine. We have the ability to do that from anywhere that has a WiFi connection."

Detroit, Mack, Volvo, and Cummins are also at various stages in the deployment of over-the-air engine updates. Their processes and capabilities vary. At International, an aftermarket device known as OnCommand Link is plugged into the vehicle to allow over-the-air updates. It also acts as a fault code recorder,

something technicians have found useful for troubleshooting those instances where an engine light flashed on the road, but was no longer displayed when the truck arrived at the shop or terminal.

"At a dealership in Tampa, the mechanic has one of these (devices) laying in his toolbox. If someone says the engine light was on, and now that he pulled into the lot it's not on, he takes the device, slaps it on the truck and it does two things. It does over-the-air for that truck it's plugged into, but it also creates

health reports and it will grab a health report and act as a recorder for up to a week. You can capture what happens when those lights do come on," Kline said.

International requires a WiFi connection to do over-the-air updates, but other OEMs allow updates through a cellular connection. Both have their advantages.

"When we first did this, most folks didn't like the idea of a monthly subscription fee," Kline said. "Frankly, WiFi is faster. We went with WiFi because it lowers our footprint as the first to go to market with

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an OTA device, and it lowered our surface area to be attacked.”

Security is a legitimate concern for fleets looking to take advantage of over-the-air programming. Matthew Pfaffenbach, director of connectivity with Detroit, said it has chosen to allow OTA updates via cellular connection, but has taken steps to ensure security is not compromised.

“We wanted the vehicle to always be accessible, and so that lends itself to the cellular aspect. The other nice thing is if we need to push an OTA update to a vehicle, we can download that while the vehicle is in operation and store that locally on the vehicle until which time the customer decides to go ahead and initiate the (installation) event. So, there’s a huge advantage from that aspect – you don’t have to be sitting in a shop or at a travel center where you have WiFi access,” Pfaffenbach explained.

Asked about security risks, he admitted it’s an issue that’s been top of mind at Detroit.

“We can’t say that’ll never happen,” he said of hacking attempts. “We take the approach that it can be done, and what we have tried to do to mitigate that is first of all, we learned from the automotive industry. Usually with this type of technology our industry is a little further behind, so we can see some of the mistakes that occurred on the automotive side and incorporate that into our designs. We have taken measures both from an architecture of the hardware and the back office environments that are interacting with it, in consultation with third-party security companies. They helped us create the architecture, do all the testing of the architecture, and our overall strategy is to raise the difficulty of penetrating the system such that you eliminate threats.”

Kline said the OnCommand Link device contains built-in security features as well. For example, “It won’t let it send particular commands to the (data) bus that would be detrimental to the truck at any time.”

Todd Mysak, director, connected solutions with Cummins, which is also rolling out OTA updates, said the security risks involved are why it’s being very cautious with its rollout, which is currently undergoing field testing.

“Security is an issue with any electronic



“It’s the opportunity to put new software on your engine controller without having to take your truck to the dealership. And that software controls everything from shifting patterns, to emissions, to speed limiters, to the horsepower of the engine.”

– Terry Kline, Navistar

system,” he said. “Cummins goes to great lengths to make sure the customer’s system is as secure as possible.”

Detroit has chosen to wade into OTA by first offering Detroit Diesel Engine Control (DDEC) reports, which contain driver and vehicle performance data, accessible to fleet decision-makers through a new Detroit Connect portal. Software and parameter updates will be offered later, Pfaffenbach explained.

“On the software updates, it will focus on powertrain controllers first, and I see that expanding across to other controllers over time,” Pfaffenbach said. “For parameter updates, we’re going to start out with common ones that customers are interested in, such as maximum road speed, maximum cruise speed, shutdown timers, things like that.”

The ability to conduct parameter updates over the air creates some compelling opportunities for fleets. They can remotely provide extra horsepower when a truck’s about to start out on a mountainous route. They can adjust the speed governor to comply with local

regulations (ie. 105 km/h in Ontario and Quebec, and higher in states that allow it). International isn’t yet offering these types of updates, but is planning to.

“It would be easy for us to do that,” Kline said. “We are discussing when. We have those things in our plans, even to change the horsepower of the engine. Lots of engines are designed to be run at different horsepower (ratings). We could literally run a particular horsepower most of the time when you’re running on flat ground, and this weekend if you’re going to be in the Rockies hauling a different load, we can increase your horsepower for the weekend.”

At Volvo and Mack, software updates are being rolled out this fall on GHG17 Mack and Volvo engines. The companies are maintaining a human element in the process, through agents at their shared Uptime Center in Greensboro, N.C.

“We will send a notification to customers through (service management platform) ASIST, and let customers know they are eligible for a software update,” explained Makki. “The decision-maker will make an appointment with a downtime agent. The truck has to be parked, the parking brakes pulled, the engine on and the key in the on position and cellular data available.”

Each of the OEMs we spoke to indicated a complete software update installation will be done in 15-30 minutes, a far cry from the day or more of shop time required using traditional methods. That’s why fleet managers and maintenance managers are so excited by the prospects, according to Mysak.

“There is extremely high enthusiasm (among customers),” he said. “There’s a lot of interest in being able to address some of the pain points like having to bring machines into the shops to diagnose them and do triage, to update them and update the software. Now all of that gets addressed remotely and that’s pretty attractive.”

And those benefits aren’t lost on drivers either, added Kline.

“Drivers don’t like not driving. Nobody likes their truck being down. The benefits, we view as significant. You don’t lose any hours-of-service as a driver if you can do this at home at night, or at the terminal or at the rest stop,” he said. ■



ROADSIDE BREAKDOWNS MAKING YOU NERVOUS?

HERE'S HOW TO FIGHT THEM

BY JIM BRAY

Keeping your trucks on the road safely and profitably is a goal of any fleet maintenance manager, but what happens when your driver and equipment finds itself parked on the shoulder despite your best efforts?

Face it, you can have the most modern fleet and the best drivers, but if the goods can't get to market, it can be

a serious hit to your company's bottom line – and credibility.

Fortunately, these breakdowns are usually related to a few problem areas, which makes them easier to combat.

Jeremy Gough, director of national fleet maintenance for Bison Transport, said that “Our three biggest wolves day to day are lights, brakes, tires. But the biggest thing with us, is that, if we

do have an over-the-road failure, we need to ensure that our driver's safe. Sometimes it's -40C out there.”

According to Chris Iveson, director of maintenance for the Ontario-based carrier Challenger Motor Freight, “When we look over all our breakdown data, tires are always number one – whether it's a blowout or a flatspotted tire or just a circumstance on the road.”

Iveson admitted that, while tire technology certainly is getting better, it's just the nature of the beast that they fail.

Besides recalcitrant rubber, Iveson cited emissions control systems and those fancy new electronics as problem areas, though not as much as they used to be. And fortunately, sometimes the problems can kind of fix themselves over the course of business.

"The new (systems) are most definitely better," he said, noting that "often as we replace sensors and parts and do firmware updates on the tractors, the (problems that will shut the truck down) get corrected or get loosened up so the truck will actually be able to make it further on a regular basis."

Meanwhile, Garry Peacock, Trimac's director of fleet maintenance for North America, said their number one roadside issue today is "the age-old air system issues – frozen brakes, drums, valves, leaking seals."

These can be prevented in most cases, he said, noting that Trimac's strategy includes ensuring air dryers are serviced regularly and that "each and every time a unit is in the shop or wash bay we drain the air tanks."

Tires are Trimac's second biggest bugaboo, but the company stays ahead via "a robust tire program. It is imperative to know history, trends and key pull points," Peacock said, adding that tires need to be checked several times a day to ensure they are inflated properly and in good enough condition to complete the trip.

Quebec-based industry consultant Stephane Godbout blamed electronics and engine apps for causing the most problems.

"Sensors, plugged diesel particulate filters (DPFs), malfunction codes, you name it," he said, noting that tires used to be the chief culprit, but "people are putting more emphasis on tire management and air management (now) because they both go hand in hand."

Bringing in the cavalry

One way to ensure roadside repairs don't break the bank is to arrange for

reinforcements ahead of time.

"Manufacturers have national accounts," Godbout said, "and all of them have a roadside service arm as well. Parts prices are set, so you won't find yourself paying \$2,000 for an alternator in Red Deer in the middle of February."

This is important, he said, because "if you have a greedy dealer he can pretty much charge you what he wants, but at least (with) national accounts you could also dispute that invoice – you have a bit more leverage."

Not only that, but when a company opens a national account, "they give you preferential prices and you don't get billed by the dealer; the dealer bills the manufacturer and the manufacturer bills you," he said.

Godbout recommends setting up such accounts right from the point at which the company is buying new trucks.

"To me that's a complete transaction," he said. "Cost of the truck, the service that goes with it, it should be negotiated when you purchase the trucks; it's part of the package."

This strategy has been adopted already, or adopted somewhat, by Bison, Challenger and Trimac. "We definitely utilize our OEM support system," Bison's Gough said, "but we also have relationships with other vendors in the smaller towns. We have pre-established partnerships and will call for them to take care of us when we have an issue over the road."

Gough said their vendors understand Bison's requirements to ensure safety standards are upheld. "Safety is our core value," he noted, "and we want to ensure we're buying quality replacement parts over the road."

Bison also has a national agreement with a tire partner, Gough said.

Trimac's "marriages of convenience" cross its corporate reach. The company uses a roadside assistance company, mostly in the U.S., to provide maintenance services and also has a mobile service unit whose trucks Peacock said are outfitted "with the base necessities to get a truck back on the road. We'll

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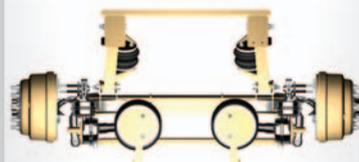


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“When we look over all our breakdown data, tires are always number one – whether it’s a blowout or a flatspotted tire or just a circumstance on the road.”

– Chris Iveson, director of maintenance, Challenger Motor Freight

dispatch either one of our own or a third party depending on where (the breakdown) is.”

Challenger’s Iveson said the company uses a “concierge program” so that – regardless of where its unit breaks down in North America – if there’s a concierge dealer, the company is treated as if it was using its home dealer.

“That to me is becoming an industry best practice – or should – where big fleets can get the same kind of service regardless of where they are, so if I show up at a concierge program dealership, they’ll guarantee me that in 20 minutes I’m in the shop, diagnosed, and right in line to get fixed that day.”

Pros are proactive

The key to keeping your fleet, well, fleet, is to be proactive - paying attention to potential issues before they raise their ugly heads.

“You could have all the predictive systems that you want,” Godbout said, “but they alert you of a failure, they don’t alert you about the expected life of the

component. That’s the biggest problem.”

Trimac’s Peacock agrees.

“The best practice are the preventive practices,” he said, “but not just oil changes and grease jobs. Those tasks do prolong equipment life, but it is the detailed inspections that save the dreaded roadside call no one is happy with.”

Such inspections don’t just fall from the sky, however. A company needs to establish standards that identify potential issues, Peacock said, “making sure the research and experiences ensure you have selected quality items to last between inspections.”

Or, as Benjamin Franklin supposedly said: “the bitterness of poor quality remains long after the sweetness of low price is forgotten.”

Even that isn’t enough, though.

“It is the entire package, the way the driver is trained, that driver’s supervisor, that supervisor’s manager, and how these details are handled,” Peacock said. “You need well trained, up-to-date technicians with the proper tooling

and a keen sense of ensuring the job (is done) right the first time.”

In short, it’s the corporate culture.

Challenger also tries to stay ahead of the game. “A very huge focus is having a great preventive maintenance program that will identify things that likely will not make it to the next scheduled PM event,” Iveson said, “and making sure we can mitigate as many of those failures on the road as possible.”

At Bison, “every time a unit is in for a repair, we ensure that all tires have been checked and we perform an excellent quality inspection before releasing that unit,” Gough said. “And we’ve been very successful at that. Our technicians and drivers are very well trained and we continue that with every new piece of equipment, every new component.”

Peacock noted Trimac also aims at minimizing duplication and confusion. Despite running a variety of tractors currently, “we’re leaning towards more standardization of our fleet,” he said. It’s a similar strategy to what WestJet followed initially, when they flew Boeing 737s exclusively. With standardized parts, “technicians have a chance to know better what could go wrong, where it could go wrong, what to look for,” Peacock reasoned.

While staying ahead of the game is the best way to keep your fleet off the shoulder – whether via arrangements with third parties, mobile repair units or just ensuring your in-house maintenance is up to snuff – Godbout thinks manufacturers could be doing more, too. “We have to put a lot of pressure so they bring predictive maintenance into play,” he said.

Citing batteries and alternators as examples, Godbout said that “when Delco builds an alternator, it knows how many cycles it will do before it goes dead. For warranty and financial purposes, they know how exposed they’re going to be if too many fail prematurely – they know the life expectancy.”

He’d like to see a chip added so, if a part has a service life of 35,000 cycles, it gives advance notice that it’s going to need replacing soon.

But that would make sense. ■

A white Freightliner truck is shown in a testing facility, likely a wind tunnel. The truck is positioned on a platform, and its headlights and side lights are illuminated. The background consists of a complex metal structure with vertical and horizontal beams, typical of a wind tunnel or a large industrial testing chamber. The lighting is dramatic, with strong highlights on the truck's body and deep shadows in the surrounding structure.

BURNING QUESTIONS

Fuel-saving tech continues to advance, but what does that mean in the shop?

BY JOHN G. SMITH

The interest in fuel-saving equipment continues to grow no matter how stable diesel prices become. Aside from generating immediate cost savings, fleets can use it as proof of the sustainable business practices that many shippers want to see when awarding contracts. Regulators, meanwhile, are essentially mandating such changes as they introduce ever-tighter limits on Greenhouse Gas emissions.

But the push for fuel savings can also introduce new challenges for those expected to keep everything in working order.

Consider the efforts to produce lighter trailers, says Yves Provencher,

director – business development for PIT Group, which conducts third-party equipment tests. “Some manufacturers are using new alloys for trailer walls, and then you see more corrosion,” he explains, referring to issues that are magnified along lanes that see heavy applications of de-icing compounds. Three-year-old units are showing the wear and tear traditionally found after 12 years on the road.

PIT Group is still researching whether different coatings could help to protect the metal. For now, preventive measures might be limited to increasing the frequency of trailer washes.

Updates introduced in the name of better aerodynamics come with

challenges of their own. Damaged panels and fairings must be returned to their original condition to ensure that air will glide by as smoothly as possible, Provencher says. A change to something as simple as the angle of a trailer side skirt can generate unwanted drag. To compound matters, some devices are more prone to damage than others. Trailer skirts and low-hanging bumpers can certainly smash against raised railway crossings.

“Truck builders are making the cab extenders as long as possible,” adds Mike Roeth, executive director of the North American Council for Freight Efficiency (NACFE), which regularly issues confidence reports that measure



experience with fuel-saving devices. The extenders may close the gap between tractors and trailers, but some fleets have discovered breaking points in the tight turns where cab extenders and trailer noses collide.

“Those things are expensive,” he says.

There are strategies to protect them. Some fleets, for example, have painted red lines on their trailers, creating the visual cues that can warn drivers if turns are dangerously tight.

Aerodynamic-related maintenance is not limited to the cab, either. The panels, hinges and latches that create a boat tail for the rear of a trailer will require some attention of their own. “It’s not a great technology from the standpoint (that) we are asking the driver to do something,” Roeth says, referring to how most boat tails are deployed or stored. Luckily, they don’t seem to be as prone to damage as some people think. He has seen the devices hit dock doors and fold into place without breaking. Some versions are also designed to retract automatically at low speeds.

General maintenance

Shops play a bigger role in fuel economy than simply caring for known fuel-saving add-ons, of course. NACFE concluded in one of its reports that “rigorous” preventive maintenance programs boost fuel economy 5-10%.

Consider the flow of air under the hood as just one example of the differences that can be realized. A clean charge air cooler keeps the engine from overheating, but also helps to ensure ideal combustion. In contrast, a clogged air filter will reduce an engine’s efficiency and cause accessories such as turbochargers to work harder.

Even though the Oak Ridge National Laboratory found that a slightly clogged air filter isn’t a big deal, because Electronic Control Modules will compensate for the issue, there are limits. If the filter is severely clogged, the engine will begin to burn extra fuel to deliver the all-important power. The resulting fuel-rich exhaust will require Diesel Particulate Filters to regenerate more often, drawing on more diesel and Diesel Exhaust Fluid alike.



FUEL ECONOMY

Wonder about the difference a clogged Diesel Particulate Filter can make? One fleet told the council that it has scheduled cleanings at 290,000-kilometer intervals because the aggressive cleaning schedule boosted fuel efficiency by about 1.5%.

“Another potential problem which maintenance can monitor is exhaust back pressure – a restriction of the

exhaust gas going from a higher pressure to a lower pressure,” the council’s Confidence Report: Maintenance concludes. “Exhaust back pressure can be the result of a badly bent exhaust, a ‘Y’ pipe that has closed or restricted the exhaust flow, a muffler with broken baffles, or a clogged DPF (Diesel Particulate Filter). It can easily become an issue in an engine, and will cause both



NACFE concluded in one of its reports that “rigorous” preventive maintenance programs boost fuel economy 5-10%.



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the fuel pump and fuel system to work harder, consuming additional fuel and taking away from engine power. It can also increase operating temperature, reduce intake manifold boost pressure, cause problems with turbochargers, and even cause valve and cylinder damage.”

In general, poorly maintained intakes and exhaust systems can reduce fuel economy about 5%.

“An inoperative fan clutch, faulty thermostat switch, low coolant level, and/or anything that makes the fan run longer than it should can all negatively impact fuel economy,” the report adds.

It isn’t the only way engine-driven accessories can make a difference. Air compressors, for example, are designed to build pressure no more than 25% of the time. Those that run longer than this can be expected to sacrifice 2% of a truck’s fuel economy.

“A poorly maintained A/C system can cause the need for the fan to run much more frequently, wasting fuel, as an air conditioning system that is not operating at its optimum efficiency requires more power to function,” the confidence report says. “Specifically, the condenser and evaporator coils must be clean and free from obstructions, the drive belt must be in good condition, and the refrigerant must be kept at the proper level.” Low coolant levels will cause the AC compressors to engage more frequently as well.

Tires

Any fuel economy gains realized through initial spec’s can also be sacrificed if different replacement parts are used. Fuel bills are bound to increase if Low Rolling Resistance



tires are replaced with traditional tread patterns. And PIT Group is in the midst of testing retreads against original tires to see what differences exist there.

Still, Provencher stresses that tire choices need to balance other business needs as well. Money saved in fuel bills could pale in comparison to the cost of a road call if a tire fails prematurely, or a driver finds himself stranded because of limited traction.

Proper alignment checks when replacing steer tires or completing other Preventive Maintenance activities will play their own role in ensuring everything remains on a smooth-running path. A tire twisted just ¼ degree off a straight path, after all, will travel 10-15 feet sideways over every mile it moves forward. Cummins estimates that wheel alignments can affect fuel economy by 0.6-2.2% because of it; carefully aligned tractors and trailers have been found to boost fuel economy 3-11%.

Mismatched duals make a difference as well. A tire that is 5/16 inches taller than its companion will drag the shorter counterpart about 13 feet over every mile.

Then there's the matter of the air inside. Every 10 psi drop in tire pressure equates to a 1% dip in fuel economy, the council reports.

Unique spec's

Some fuel-saving spec's have been known to exchange one maintenance headache for another. With 6x2s, there are no gears or rear axle seals to contend with, Roeth says. "There's less stuff to fail." Then again, early generations of that technology tended to be

particularly hard on drive tires.

More changes will be coming, especially as the limits on Greenhouse Gases continue to tighten.

"It's not one technology that's happening. It's dozens of technologies," Roeth explains. "The fleets have choices ... they can do that with lots of different recipes or specification technology mixes."

Each will introduce new questions

and unique training needs.

Introduce something like waste heat recovery systems and shop teams will need to be trained in their repair, Provencher says. "In some cases training is difficult because even the dealers are not necessarily up to speed.

"There is so much uncertainty now on all those things," he says. "It's difficult to predict what's going to happen." ■

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Training Tech

A technician's job has evolved, and so has the approach to training

BY DEREK CLOUTHIER

Repairing a truck in 2017 is vastly different from what it used to entail, so much so that today's mechanics are more often than not referred to as technicians.

But despite the move toward technology-aided components, the mechanical aspect of the job continues to be an integral cog that keeps today's trucks rolling.

Mike Gomes, vice-president of maintenance for Bison Transport, said that although new technicians coming into the field today are savvier when it comes to technology, social media, and learning new skills online as opposed to in a manual or textbook, the reality of their job does come to light eventually.

"We see with the youth today, that we have to temper their expectations," Gomes said. "There is still a mechanical requirement to the job. With all the technology layered on top, we see the expectations a lot today are with Uber, Otto, autonomous vehicles like Tesla and so forth...we're not quite there yet in the real world."

Bison hires new technicians through a variety of paths, including traditional recruitment tactics like advertising, as well as looking for employees internally who would be a good fit. The company

also partners with various college programs across the country to find new hires who have recently graduated from an applicable program.

Gomes said they are also seeing a lot of applicants for technician positions coming from vendor programs, particularly in the Mississauga, Ont., area, such as Volvo's modified apprenticeship program (MAP), a program for which Bison sits on the board and acts as a consultant.

In addition to curtailing the expectations of new technicians, Gomes said trucking companies must also understand their new ways of learning and provide a workplace that fosters this virtual classroom environment.

"They have different ways of learning," Gomes said of today's technicians. "It's not necessarily through the books or flipping through the manual. It's a lot more of the video tutorials and YouTube; understanding that is their way of learning, through technology that they are utilizing."

Even the manner in which the learning tools are delivered has changed, with most of today's technicians receiving information and instruction on their smartphones, which means companies like Bison must provide Wi-Fi and keep the



With new technology constantly changing the job of heavy-duty technicians, Bison Transport understands the importance of proper, ongoing training.

signal secure, which can present some challenges.

Technology itself, though intended to make everyone's lives that much easier, can also pose some challenges.

Big data, and getting the proper information out of telematics devices, is one example, as Gomes said technicians often see a lot of what is called "ghost coding" – faults that are not necessarily possible to replicate in a shop environment.

"We're seeing either faults being

reported or the driver is reporting check engine lights or drivability issues,” Gomes said, “and then unfortunately when we have it in a shop environment, we’re unable to recreate the issue.”

But that’s not to say that technology hasn’t made many aspects of a technician’s job easier.

“Technology definitely makes the job easier, and in the diagnostic tools we can see that,” said Gomes, pointing out that when he started out as a technician himself, diagnostic tools were fairly basic. “The interactive and intuitiveness of the tools has definitely improved through the years. We are seeing some remote diagnostics, as well, so telematics.”

Even with the ever-changing role of the technician, high schools, for the most part, have cut their programs, meaning many students do not get introduced to the technician trade until college.

“It hasn’t been fostered at the high school level so much anymore,” Gomes said, adding that he believes the programs should be brought back to the high schools. “People need to understand that the trades are a very technical industry.”

One post-secondary school that has been training mechanics and technicians since the 1960s is the Northern Alberta Institute of Technology (NAIT).

Sheldon Boyden, chairman of the heavy equipment technicians program at NAIT, said the program offers students a focus on training for pre-employment of heavy-duty technicians off- and on-road, and provides all facets of a technical education plus service courses, such as communication and chemistry.

“It makes them a lot more marketable for future employers over other apprentices coming into the trade,” Boyden said. “That was the goal for the program.”

Boyden graduated from the program in 1996, and said there was more of an emphasis on the engineering side of being a technician at that time.

“It was pretty detailed and in-depth with that stuff and was pretty labor-intensive. Electronics weren’t that big of a deal,” Boyden said, adding that one might only have seen a Commodore

“We’re seeing either faults being reported or the driver is reporting check engine lights or drivability issues, and then unfortunately when we have it in a shop environment, we’re unable to recreate the issue.”

– Mike Gomes,
Bison Transport

64 or Macintosh computer in those days. “The student has changed and the technology has changed.”

NAIT has changed its heavy equipment technician program to better suit today’s marketplace, going from a 17-week course down to 15 in 2015.

Initially, prerequisites for the program did not change when it was shortened by two weeks, but last year, the school reached out to area high schools, and based on the feedback, rolled entry requirements back to science 30, a move Boyden said has brought enrollment back to 100%.

“We have probably the highest prerequisites for the course of any pre-employment trade in Alberta,” said Boyden. “We were losing out on a lot of the apprenticeships and people coming out of high schools because they didn’t have physics 30 or chemistry 20 and they were defaulting into either heavy-duty or going into welding automotive where the prerequisites were much less.”

Boyden said much of the advanced electronics training is now acquired through industry training and not so much through the educational program itself.

One alteration to educational programs for technicians Gomes would like to see is to put the emphasis back on students performing a section of practical, then one of schooling, another of practical, and ending with schooling.

“The biggest push lately has been to have the student finish all their schooling at the front end and then go out and do the practical afterwards, and that creates a challenge in the ability of learning out of books or being able to take a test and successfully pass that,” explained Gomes, saying he believes schools are doing a satisfactory job training new technicians. “I think it would help have a higher success rate from apprentice to licensed mechanic.”

Gomes also feels proper education should focus first on the mechanical path, then the technical.

“Today, vehicles are still based in the principles of operation, the four-cycle engine is still the base that’s in every vehicle today and that still needs to be repaired and understood,” he said, highlighting the braking components, driveline components, steering, and suspension as all being aided by today’s technology to work more efficiently but does not change its basic operation.

The complexities of today’s technology and its multitude of functions in tractor-trailers have also made the technician trade more specialized.

“We still continue to expect or train a mechanic to be able to perform all aspects,” said Gomes, using HVAC, suspension, engine control management, and mechanical rebuilding as examples. “I don’t think that’s a realistic expectation any more with the amount of technology that is layered into the vehicles.”

One aspect of today’s technician compared to yesterday’s mechanic has not changed, and that’s the demand for more to get into the field.

“Being a mechanic is a very viable trade,” said Gomes. “In my career, I’ve never been laid off, I’ve never had an opportunity through work slowdowns or anything along those lines. It’s not a new problem with a shortage of mechanics, it’s been around since I entered the trade over 30 years ago.” ■



First spin-on air dryer cartridge with recycled desiccant

Bendix Commercial Vehicle Systems has released the first heavy-duty aftermarket spin-on air dryer cartridge with recycled



desiccant. Repossessing its own desiccant, the company says the Bendix GC Spin-On Air Dryer Cartridge can provide original equipment manufacturer performance with a replacement cartridge priced for aftermarket customers.

“Bendix understands the value of listening to customers to provide the best solutions. It’s been a part of how we do business for more than 85 years,” said Richard Nagel, Bendix director of marketing and customer solutions, air charging. “We’ve heard from many fleets and owner-operators who work hard to maintain their trucks for long-term life cycles, as well as customers who are second and third owners of used trucks – and one of the things they’ve told us is that they really want an aftermarket spin-on cartridge that delivers genuine Bendix reliability.”

Desiccant is the material inside an air dryer cartridge that attracts and releases moisture and is subject to pressure cycling, high temperatures, road vibrations, and exposed to air saturated with moisture and oil aerosols passed by a truck’s compressor.

“We’ve been remanufacturing our desiccant for over 20 years and continue to improve and invest in the process,” Nagel said. “The Bendix GC reflects this, with a performance range that’s near the air drying efficiency of our brand-new, OEM-grade cartridges. In fact, our proprietary remanufactured desiccant mix is often better in the long run than the new desiccant found in most comparable aftermarket cartridges.”

Bendix also says its new product can

Chevin launches new API tool



Chevin Fleet Solutions launched a new API for its FleetWave product, which is designed to be the central hub for all asset, fleet, and driver-related information.

The API tool, which allows secure external access to specific areas of FleetWave’s data, offers system users the capability to extend the software’s integration options further by building individual APIs using CRUD (create, read, update, delete) rules, as well as share or update in real-time with other software applications.

“If you want to maximize the efficiency of your fleet and minimize its cost, then the fleet cannot operate as a standalone entity,” said Ron Katz, senior vice-president of North American sales for Chevin. “It needs to be tightly integrated into the whole corporate structure. If you can deliver high levels of integration with critical internal systems, then all kinds of new efficiencies and decision-making opportunities are created.”

Katz added that dozens of potential external data feeds from suppliers and information sources available to fleets with the ability to be harmonized in near real-time.

“There are obvious benefits – for example, taking data from your fuel supplier or commercial fuel card will provide you with accurate information regarding fuel use, mileage and sustainability achievement – however system integration also opens the door to all kinds of new managerial strategies,” said Katz. “FleetWave is used as the central system to manage the entire fleet, with the ability to leverage intelligence from other systems and applications – a function that we believe is key for gaining complete oversight of a fleet’s information, cost and performance. Our new API tool expands on this by allowing users with programming knowledge to build their own integrations with standard FleetWave tables.”

help reduce the amount of material sent to landfills and cut down on the environmental impact of manufacturing new desiccant and dryer cartridges.

Wajax distributes B'laster products in Canada

Wajax is now distributing B'laster penetrant, lubricant, and rust inhibitor products to the Canadian market.

“We are pleased to be appointed the exclusive industrial distributor of B'laster products in Canada,” said Donald Charbonneau, manager of safety and mill supply products at Wajax. “We are committed to working together with B'laster to serve our industrial customers, who will appreciate the quality and performance that this lineup of



products will deliver for them.”

Some of the products available through Wajax include Original PB B'laster Penetrant, which breaks away rusted or frozen parts, High-Performance White Lithium Grease, a low-odor, clean, white grease that lubricates a wide range of applications, Industrial Graphite Dry Lubricant, a quick-drying film that lubricates to help reduce wear, and Non-Chlorinated Brake Cleaner that dissolves and flushes away brake fluid, oil, grease, and other surface contaminants.

“B'laster is thrilled to be partnering with Wajax to bring its products into Canada’s industrial market,” said George Ebert, industrial sales manager at B'laster. “Wajax is the right partner for us because of its resources and technical knowledge, and because its core values and mission align with those of B'laster.”

Visit www.blastercorp.com for more information.



Torquing no longer a two-person job



AME International says its new torque wrench-stabilizing accessory will eliminate two-person torquing.

The Torque Fin allows a single person to torque wheel nuts, and is ideal for service technicians to work from the roadside while still providing proper torque.

The Torque Fin is made from recycled plastic, and the company says it's durable and lightweight. It uses leverage and links to commercial torque wrenches allowing one person to get the job done accurately and efficiently.

"From the first time we met with Keith Jarman and the AME team, we could see that the product line and customer base of AME would be a perfect fit for the Torque Fin," said Greg Robinson, Torque Fin inventor and owner. "We have lived, breathed and preached 'proper torque,' and to partner with AME, who directly services the large-truck tire service market, is a huge step forward in promoting accurate torque on truck wheels. [This] ultimately means improved safety and reduced liability."

Bosch's new HDS 200 for technicians servicing medium- and heavy-duty trucks

Bosch released the HDS 200 heavy-duty scan tool in North America, saying it is a cost-effective solution for those working on Class 4-8 trucks.

The tool is intended for heavy-duty shops that need a second triage or to equip mobile repair trucks.

The HDS 200 has a color display to read and clear diagnostic trouble codes, displays and graphs live data from SAE standard

Accuride launches ProFinish for North American commercial vehicle aftermarket



Accuride introduced its ProFinish steel wheel refinishing service July 18 for the North American commercial vehicle aftermarket.

ProFinish refinishes all steel wheel makes with the company's advanced Steel Armor coating providing corrosion protection with a 12-month warranty against rust damage.

"Accuride launched ProFinish in response to the concerns fleet and aftermarket customers had with the coating quality and durability of their refinished wheels," said Scott Hazlett, Accuride Wheels president. "ProFinish gives them the advanced corrosion protection of Steel Armor coating on their refinished steel wheels. Our ProFinish refinished wheels will stand up to the toughest road environments in North America and deliver a level of quality and performance other wheel refinishers simply can't match."

The ProFinish refinishing process starts with an inspection to exempt wheels containing cracks and other flaws. The wheels then get a shot-media blast that removes 100% of the paint before undergoing Accuride's proprietary three-phase Steel Armor coating process – zinc phosphate, epoxy e-coat, and powder coat.

Most wheels the following sizes are eligible for ProFinish refinishing: 19.5 x 7.50, 22.5 x 7.50, 22.5 x 8.25, 22.5 x 9.00, and 24.5 x 8.25.

MIDS/PIDS, and has on-screen definitions of diagnostic troubles codes.

Users can record data to play back information, offers global OBD II Quick Test for gasoline and diesel engines, and has a demo mode for training.

The kit includes a nine- and six-pin Deutsch cable, 16-pin HD/OBD II cable, USB cable, quick start guide, and carrying case.

For more information on the Bosch HDS 200 heavy duty scan tool, visit www.BoschDiagnostics.com.

Stertil-Koni touts its ST 4600 four-post lift as highest-capacity lift

Stertil-Koni says its new ST 4600 four-post lift, with 132,000-lb capacity, is considered the highest certified lift of its type in North America.

Engineered to take on the biggest vehicle lifting challenges anywhere, the ST 4600 has a 36' 3" runway length, state-of-the-art reliable hydraulic technology, and a low drive on height, which is ideal for low-ground-clearance vehicles.

"The ST 4600 is designed to deliver an optimal combination of extremely high-cap-



acity lifting along with added productivity, efficiency, safety and durability," said Dr. Jean DellAmore, president of Stertil-Koni. "It can easily lift oversized vehicles such as fire and rescue equipment, airport tugs, construction and mining machinery, military vehicles and more."

The ST 4600 four-post lift is ALI certified to the provisions of ANSI/ALI ALCTV-current edition and offers the safety features of a platform lift, in which the vehicle wheels reside on drive-on runways, and features an automatic overload protection device.

"What makes the ST 4600 even more unique is that it is electronically and hydraulically synchronized," added DellAmore. "And, there is a cylinder in every post – meaning there are no chains or cables – eliminating high maintenance."

Visit www.stertil-koni.com/vehicle-lifts/4-post-lifts for more.

Raptor wrench devours toughest bolting applications



TorCUP is touting its line of Raptor non-impacting pneumatic torque wrenches as the newest success story for providing safer, more efficient solutions to the trucking industry's bolting applications.

"The Raptor is accurate to within 5% of its torque value compared to an impact wrench that is only accurate to within about 20% of its torque value," said Tim Benford, director of sales and marketing for TorCUP. "It has been proven that consistent use of an impact wrench can cause harm to

mechanics in the form of white finger disease, carpal tunnel and nerve damage."

The Raptor uses a simple, non-impacting operation and has the capability to produce precise torque values to decrease human error and aid technicians with the bolting of lug nuts, main bolts, head bolts, and more.

The wrench is available in five models from 78 lb.-ft. to 5,990 lb.-ft.

Visit www.torcup.com for more.

Latest version of JPro Professional released

Noregon has released an updated version of its advanced diagnostics and repair software JPro Professional, focusing on expanding bi-directional coverage and educational features.

"Technician efficiency is always a focal point of ours," said Noregon's vice-president of sales, Shane Gilliam. "We continuously add features that make their jobs easier, quicker, or increase their skillset and ability. For instance, we expanded upon our fault



assistance and added to our vehicle health indicators to include alerts to inform the technician whether a DPF regen is necessary. Technicians stay extremely busy, so we take as much of the guesswork out of their job as possible and free up time to do what they do best, which is repair trucks."

The company says the JPro provides technicians the ability to reduce dependency on OEM software, as well as spending less time switching between tools.

The latest updates to JPro added DEF dozer pump override tests, actuator tests, air management tests, and more functionality. 

www.trucknews.com/videos/



New online episode every Thursday



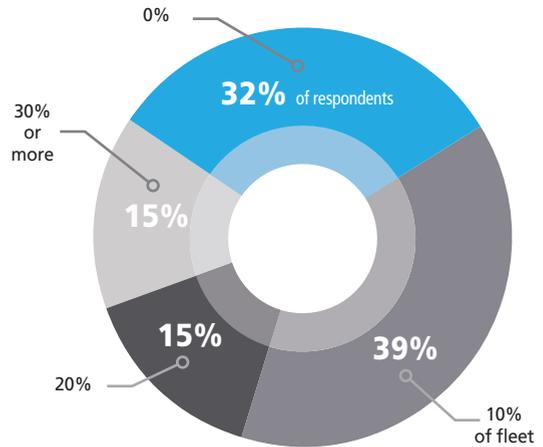
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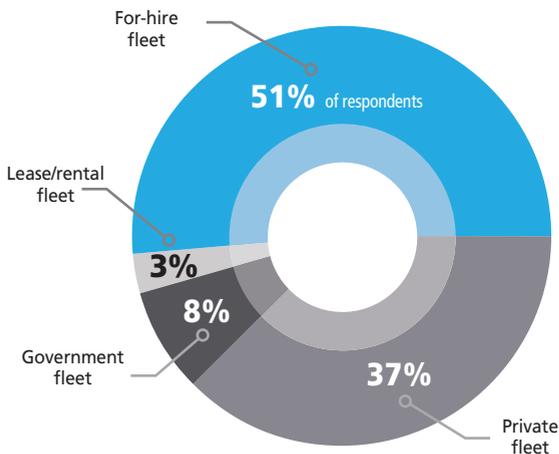
RAMPING UP FOR RENEWAL

Canada's motor carriers have slowed down their new truck purchases in recent years due to concerns about a slow-growing economy and overcapacity. However, optimism is building for greater economic growth in 2018, and the results from our just-completed annual Equipment Buying Trends Survey indicate that fleet owners across the country are once again ramping up their fleet renewal plans. Almost 7 in 10 respondents reported plans to replace at least 10% of their heavy-duty fleet by the end of the year. Close to 4 in 10 are planning to renew their medium-duty fleet.

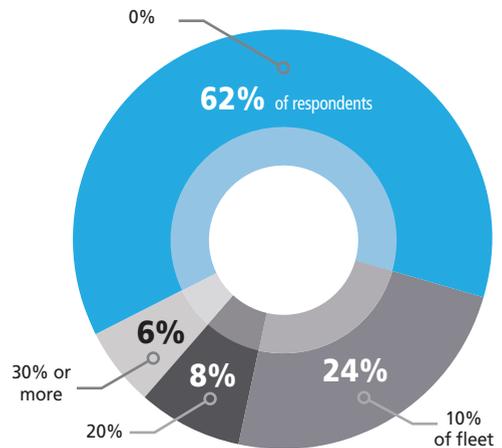
Share of heavy-duty fleet expected to be replaced in 2017



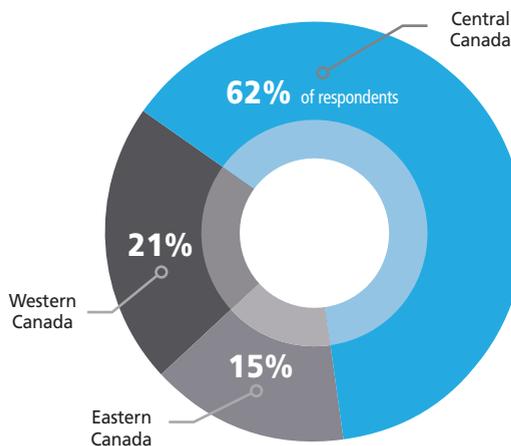
Trucking industry sector



Share of medium-duty fleet expected to be replaced in 2017



Geographic distribution



Size of heavy-duty fleet

0 vehicles	3% of respondents
1-9 vehicles	28%
10-24 vehicles	21%
25-99 vehicles	29%
100-499 vehicles	12%
500 or more vehicles	8%

Size of medium-duty fleet

0 vehicles	21% of respondents
1-9 vehicles	49%
10-24 vehicles	13%
25-99 vehicles	9%
100-499 vehicles	5%
500 or more vehicles	4%

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