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We hope you find this issue of The Tracker informative, educational and entertaining. We welcome your feedback and invite you to submit any ideas you have for upcoming issues. Feel free to drop us a line (or two)...

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COVID CONUNDRUM



As has been the case with so many other aspects of life, the automotive sector has seen some interesting twists and turns in current and ongoing trends. Not surprisingly, Canadian Black Book reports that 76% of Canadian respondents are driving less since the pandemic began.

Not surprisingly, Canadian Black Book reports that 76% of Canadian respondents are driving less since the pandemic began.

Obviously less vehicle usage translates into less wear and tear and inevitably less demand for vehicle repair and maintenance. However, there are some other interesting trends that are worth noting.

Repair not Replace

With the average age of a vehicle now eclipsing the 12 year old mark for the first time ever, it is apparent that people are choosing to hold onto their vehicles for a little longer and choosing to repair what they have rather than replace.

A current shortage of microchips has also made things interesting when it comes to new vehicle production and availability. Current estimates are that at least 1.2 million fewer vehicles will be produced in the U.S. due to the shortage this year.

This has had a ripple effect in the used car market as well. Fewer new cars being purchased has translated into fewer used vehicles being traded in. This has also fuelled demand for used vehicles as availability and pricing on new units has pushed many to look at the used vehicle market. This has been especially true in the United States and has directly impacted vehicle availability in Canada. In 2020 nearly 310,000 used units went from Canada into the United States.

During this same period fewer than 9,000 used units came from the U.S. into Canada. Industry experts believe that ultimately this could translate into fewer used vehicles on Canadian roads and trend to newer vehicles which would require less repair and maintenance. Not exactly an ideal situation for the aftermarket repair industry.



Neal Shymko
President, WCTD

With the average age of a vehicle now eclipsing the 12 year old mark for the first time ever, it is apparent that people are choosing to hold onto their vehicles for a little longer and choosing to repair what they have rather than replace.

Shifting trends in ownership

The pandemic resulted in a decrease in ride sharing and public transit usage. However, recent surveys reveal that over the next five years people are showing intentions to become more fuel efficient. This includes moving to more fuel efficient vehicles and alternative fuel vehicles, fewer vehicles in each household and a growing trend to ride sharing and transit usage.

Ultimately, the long term effects of the past couple of years are still a guessing game. However, the trends are there for us to see. Hopefully we can learn from them and be prepared for what will be coming our way.

I hope you have all had a wonderful summer and found some time to relax and enjoy some down time.

Stay safe and here's hoping for a busy fall for all of us.

Neal Shymko



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WHERE ARE THE HOURLY WORKERS?



Hiring the hourly workforce has always been a battle. And after more than a year of living under COVID restrictions, nearly every aspect of our business lives has been transformed.



Developing strategies that include social distancing and contactless methods and tactics have dominated most service industry businesses. But now with cities across the country finally lifting most if not all restrictions, due in large part to rising vaccination rates—coupled with the return of warm weather and a resurgent economy—the main challenge today is finding and retaining hourly workers.

So what's going on? How can there be so many unemployed workers, yet so many unfilled jobs? Here is what I think is happening in the market and contributing to the hourly workers shortage.

- CERB and generous unemployment benefits
- At-home care still needed
- Holding out for higher wages
- Switching industries and careers
- Desire for more flexible work schedules

This is a perfect storm, exacerbated by the fact that service industry businesses around the country are all ramping back up at the same



Ray Geleta
Executive Director,
WCTD

time. The reality is, employers whose businesses depend heavily upon hourly workers must be more agile than ever and be willing to adapt their recruiting and retention strategies.

The Tracker is an association magazine. As such, we are obliged to conform to our bylaws, which do not allow us to accept advertisements for dealer employment opportunities. That being said I know of a couple of dealers that are planning to close their doors in the near future. If these dealers have competent staff that other dealers may be interested in please contact me and I can be the conduit to possibly finding these employees a new home.

However, please note that we can run free advertising (up to 50 words) for any equipment that dealers may wish to sell or purchase, such as a store looking for a used service truck.

Good training is critical to the ongoing success of your business. Well learned best practices and procedures can help avoid injuries and property damages.

WCTD to resume comprehensive training

Next year Western Canada Tire Dealers (WCTD) and Tire Industry Association (TIA) intends to present a series of important training sessions. These programs are vital to maintaining safety, improving workplace procedures and keeping up to date with industry advances.

Currently we are working on a schedule that includes: Earthmover Installer, Commercial Tire Service, Train the Trainer and Farm Tire Installer programs.

Good training is critical to the ongoing success of your business. Well learned best practices and procedures can help avoid injuries and property damages. Anyone interested in attending or sending employees should let me know as soon as possible. Dates and rates will be confirmed by the end of September.

Ray



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ENTER THE EV: OBSTACLE OR OPPORTUNITY?

— TIM PAWSEY - EDITOR, THE TRACKER



No argument. The EV has arrived. Even though the overall percentage of EVs on the road remains relatively small, no matter where you are, their presence in every major market is now apparent.

The questions we should be asking ourselves are: How quickly will EV market shares grow? How much of an impact will they have on the replacement tire industry and in which ways specifically? And how can dealers leverage the sale and service of EV tires to their maximum benefit?

Only a few short years ago, it seems, I was checking out a BMW i3 parked outside the Vancouver Convention Centre. Now my sister and her husband have one plugged into their garage. And Teslas are a dime a dozen.

Most observers agree that the shift from internal combustion engine (ICE) to EV will radically transform the automotive service sector from what it has been over the last, say, 30 to 40 years, perhaps longer. Some estimates suggest the drop in service revenue from a typical EV could be as much as 35 percent (or more) when compared to a traditional ICE vehicle.

Obviously, the need for oil changes is eliminated. But expect brake service to also be impacted. Technologies such as regenerative braking extend considerably the life of the typical brake pad. Many Prius owners, for example, report low wear even after significant mileage driven, as the brakes are activated only at slowest speeds, after deceleration

“Regenerative braking is an energy recovery mechanism that slows down a moving vehicle or object by converting its kinetic energy into a form that can be either used immediately or stored until needed. In this mechanism, the electric traction motor uses the vehicle’s momentum to recover energy that would otherwise be lost to the brake discs as heat.” (source: Wikipedia)

However, by contrast, EV tires can present a prime opportunity. For several reasons, an EV’s tire life is significantly shorter than its ICE equivalent. If you’ve been following performance reviews of vehicles such as the 1,020 hp. Tesla Model S Plaid, it’s easy to understand why. But even less powerful, relatively more humble machines still come with their own set of torque related tire challenges.

It’s still early days to gauge just how more frequently EV tires need to be replaced. Tech Crunch reports that Zohr (an on-demand tire replacement service) “sees its EV customers coming back for tire replacements 30% more frequently than traditional internal combustion vehicle owners. While EVs have less of a need to visit a service shop, they’ll need tire replacement more often.”

Many years ago, in another era, the radial tire arrived in North America. At the time (in the late 1960s), mainly because of its higher cost and specific service requirements, more than a few dealers initially shunned it as being either too expensive, trendy, “foreign” (it was!), or just too much trouble. Besides, at the outset, stocks were miniscule. The radial was a rarity as the market was ruled by bias ply tires. The first American car to have radial tires fitted standard (Michelins) was the 1970 Lincoln Continental Mk iii.

However others quickly saw that not only were radials the way of the future; they presented a real opportunity. The very fact that they did pose more of a technical challenge—not to mention entirely different, metric sizing—offered a chance to exploit that point of difference, and excel at being radial specialists.

In many ways the arrival of the EV tire yields a similar opportunity, especially for those who take the time to fully train their service and sales personnel accordingly.

Deloitte’s EV forecast “is for a compound annual growth rate of 29 per cent achieved over the next ten years... reaching 31.1 million by 2030.”

By then EVs could secure approximately 32 per cent of the total market share for new car sales, says Deloitte. While annual car sales are unlikely to reach pre-COVID-19 levels until 2024, the company expects that “EVs will continue to have a positive trajectory during the COVID-19 recovery period and may well end up capturing a disproportionate share of the market in the short term.”

Any way you look at it, the EV is here to stay. The real question is: Are you sufficiently prepared and your staff well enough informed to make the most of it?



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5 WAYS EV TIRES DIFFER FROM REGULAR TIRES

— BY DR. BYEONGHO AIDEN SEO, TIRE REVIEW

An electric vehicle's heavy weight and noise reduction, among other factors, differentiate it and its tires from other vehicles.

With the popularity of electric vehicles (EVs) accelerating, tire makers are now offering tires that are specifically engineered to enhance the performance of EVs and support the growth of the market. But, the big question is, how exactly does an EV tire differ from a regular tire?

We review the ways in which these tires differ below.

1. **Noise Reduction:** Since EVs don't have an engine, they create virtually no noise when driven. Therefore, one of the most important requirements of an EV tire is that it reduces as much road noise as possible in order to maintain the quietness of the ride. Noise reduction can be achieved through design and manufacturing techniques such as specialized tread patterns and sound-absorbing foam and rubber compounds.
2. **Withstands Heavy Weight:** EV tires are built to withstand the heavier weight of EV vehicles, which are generally 10-20% greater than that of their ICE counterparts. If an EV drove on regular tires, the tires would wear more quickly as EV-specific tires are built to withstand the heavier load, making them essential for optimal performance.

3. **Strong Traction:** Since EVs have strong initial acceleration and high output from the moment a driver steps on the pedal, EV tires must also have stronger traction, steering and braking performance. To provide this necessary grip, EV tires are designed with specific stiff and wide center rib patterns to reduce potential slippage and abnormal abrasions, in addition to interlocking grooves in the tread pattern to prevent hydroplaning and compensate for the increase in torque.
4. **Enhanced Durability:** Specific tire compounds are also necessary to support the unique driving experience of an EV. Compounds that contain raw materials such as high-loading resin and silica extracted natural resources are key components to developing EV-specific tire products. With inherent durability improvements, the stronger and more durable compound better assists the power delivery and driving characteristics of an EV over conventional compounds.
5. **Reduced Rolling Resistance:** Another important factor in the development of EV tires is reducing rolling resistance. Essentially, lower rolling resistance leads to less energy loss, therefore, increasing battery efficiency. During the manufacturing process, a number of different techniques can be used to achieve low rolling resistance, such as the type of rubber compound used and applying rigid design patterns, tire profiles and structures.

Diagram: EV Tread Technology



Interlocking Groove

Interlocking outside grooves help secure wet grip while preventing hydroplaning



Low Noise

Due to lacking ICE noise, lateral groove design and volume are refined to reduce road going feedback



Stiff & Wide Center Rib

EV power output requires a stronger central pattern to reduce potential slippage and abnormal abrasion.



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ELECTRIFIED VEHICLE SALES ACCELERATE SIGNIFICANTLY IN Q2 2021, ACCORDING TO KELLEY BLUE BOOK REPORT

— BY KELLEY BLUE BOOK

No Vehicle Segment Growing More Quickly, Relentlessly Than Electrified Vehicles

While the U.S. automotive market has experienced growth this year in nearly every vehicle segment, Kelley Blue Book today reports no segment is growing more quickly and relentlessly than electrified vehicles – defined as the combined total of electric vehicles (EVs), hybrids and plug-in hybrids. New-vehicle demand is up across the board as the country emerges from the depths of last year's pandemic-ridden 2020, and while inventory-shortage challenges and supply-chain struggles remain, the general public's interest in electrified vehicles continues to grow.

As automakers produce more electrified vehicles, consumers are increasingly eager to buy them. According to an analysis of Q2 2021 data from Kelley Blue Book, sales of pure EVs surpassed 100,000 units in the quarter – a first – and hybrid sales were over 250,000 units. Sales of electrified vehicles for Q2 climbed a staggering 201.1% year-over-year, reaching beyond 375,000 total combined EVs and hybrids. Accordingly, electrified vehicles are capturing more total market share as consumer demand expands. Electrified vehicle sales accounted for 8.5% of total sales in Q2, up from 7.8% in Q1 and 4.2% in Q2 2020.

Gas prices continue to increase – according to AAA, prices have risen 40% from the beginning of the year – and research consistently shows that when prices are up, consumers start dreaming about more efficient vehicles. In a recent Cox Automotive 'quick poll,' 30% of consumers indicated they would either be "extremely likely or very likely" to consider an EV for their next purchase. That 30% is significantly higher than what is typical, given that EV consideration usually hovers in the 5% to 7% range according to Kelley Blue Book's ongoing Brand Watch study.

"While low inventory could impact the market's current trajectory, it's still safe to say that 2021 will be a record-setting year for electrified vehicles in the United States – and we're confident that 2022 will beat 2021," said Matt DeLorenzo, senior managing editor for Kelley Blue Book. "Automakers continue to release more electrified vehicles, whether hybrid versions of established nameplates or all-new electrified models. Car buyers are increasingly attracted to these options. The electrified market is currently dominated by hybrids and plug-ins, but automakers future plans favor pure electric vehicles. The progress may be slow, but the path is set."

There are more EVs and hybrids available today than ever before, ready and waiting to appeal to a wide variety of car shoppers. Consumers can't buy a new Toyota Sienna minivan without buying a hybrid, and hybrids now account for roughly 25% of Toyota's total volume. Hybrid off-roaders like the Jeep Wrangler 4xe satisfy the needs of the outdoorsy crew, and luxury seekers will find more plug-in hybrid models available in increasing volumes.

EV sales are charged up by new products like the Ford Mustang Mach-E and Volkswagen ID.4. While Tesla is still the dominant force in the EV market, its notable market share lead continues to erode even as sales increase. Tesla's Model Y remains the best-selling EV on the market – one in three EVs sold is a Model Y – but as the months and quarters pass, Tesla represents a smaller piece of the growing electrified vehicle pie. In Q2, Tesla's share of the EV segment in the United States stood at 64%, down from 71% in Q1 and 83% a year earlier.

Lea Malloy, assistant vice president of Research & Development for Cox Automotive Mobility, added, "We believe battery-powered vehicles will be the dominant form of transportation in the future. That day is still a long way off, but we're encouraged by the continual growth in interest in electrified vehicles. The current trajectory is an important wake-up call for the industry—we all need to be doing more to prepare for a future with more electrified vehicles."

For more information and to access a detailed report of Q2 2021 electrified vehicle sales, visit <https://www.coxautoinc.com/market-insights/electrified-vehicle-sales-accelerate-in-q2/>

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**QUARTERLY
ELECTRIFIED-VEHICLE
SALES REPORT
— Q2 2021 —**

Electrified Vehicles Sales

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- Summary by Brand and Model
- Cox Automotive Estimates (revised 4/29/2021)

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TIRE AND AUTO SERVICES

Tires going higher-tech for EVs

— BY RICHARD TRUETT, TIRE BUSINESS

The coming GMC Hummer EV weighs more than 9,000 pounds and can reach 60 mph in about 3 seconds.

The twin electric motors in the Ford Mustang Mach-E GT make more torque than a diesel-powered Ford F-150 and can propel the 4,500-pound vehicle to 60 mph in just 3.5 seconds.

Tesla's Model S Plaid can reach 200 mph and hit 60 mph in less than 2 seconds.

All three deliver torque numbers usually associated with high-output diesel-powered trucks, and they all are shod with tires created specifically for electric vehicles (EVs).

In the EV era, almost no part of the automobile will go unchanged — including tires. With more than 100 electric-driven models scheduled for launch in the next few years, tire companies are under pressure as they wrestle with conflicting demands for a new generation of tires.

In the EV era, tires must provide much more than traction and safe handling in all weather conditions, experts said. To help vehicles use energy efficiently and provide a refined ride, next-generation tires will have to be:

- Able to withstand instant, massive torque from electric motors;
- Lightweight to improve range between charges;
- Designed to deliver very low rolling resistance to save energy;
- Capable of running quietly because there's no traditional engine to mask noises;
- Capable of containing sensors to help self-driving vehicles react faster to changes in the road surface; and
- Affordable, durable and reliable.

According to those familiar with the subject, these new tires need to be stronger to handle increased vehicle weight and substantially greater torque created by electric motors, while at the same time have to be made as light as possible to help EVs drive further between charges.

They also will need to provide greater grip to keep the vehicle stable during hard acceleration, but the tread patterns will have to be quieter and generate less friction, or rolling resistance.

In addition to handling greater torque and higher loads from electric powertrains, tires on vehicles that will have some autonomous driving features are also going to be collecting and transmitting information.

"What you are starting to see is intelligence coming. So, think about a tire that is sensing something and telling it to the car or telling it to you on your app," Steve Rohweder, vice president of technology development at Goodyear, said.

"What you are starting to see is intelligence coming. So, think about a tire that is sensing something and telling it to the car or telling it to you on your app," says Steve Rohweder, vice president of technology development at Goodyear



Tire engineers and chemists at Bridgestone/Firestone are doing stress tests, top, and evaluating new additives, below, to save weight and add strength.

"Maybe it is simple stuff, like it needs to be inflated, but maybe it is more detailed information, like the tire is worn out. Or maybe it is information about the road and the fact that the traction has gone away or something the car needs to know to operate in the safest condition," he said.

"We do a lot of work there with sensors and integration with the vehicle. As you start to move towards an autonomous vehicle, where there is not a human and a steering wheel, those systems have to handle what the human was doing before."

France's Group Michelin is looking beyond pneumatic tires and has developed the Tweel, an integrated airless tire-wheel hybrid that someday could replace the classic rubber tire.



Michelin Tweel

Most of today's tires are not optimized for EVs, industry experts contend. The weight of a battery pack often exceeds that of a conventional powertrain, and the full torque arrives at the wheels instantly and is often far higher than on internal combustion engine vehicles.

Also, tires play a key role in the overall refinement of all vehicles. On gasoline- and diesel-powered vehicles, engine sounds often mask tire and other noises, but on EVs the sound generated by tires on pavement gets telegraphed straight into the interior.

Early efforts to combat this are "low tech." Tesla's Goodyear tires, for example, have an inch of foam glued to the inside of the tire to help dampen those unwanted sounds. It's effective, but tire engineers are looking beyond that solution.

Engineers at Goodyear, Cooper Tire & Rubber Co., Bridgestone Americas Inc., Michelin and elsewhere are designing new generations of tires that run quieter and use lower-weight, eco-friendly materials.

Michelin recently launched the Pilot Sport EV, a line of tires designed specifically for high-performance EVs, such as Tesla's Model S Plaid. They use technology gleaned from the company's experience equipping Formula E electric race cars.

Pilot Sport EVs have hardened sections in the center of the tread that enhance grip. The tire also has lower rolling resistance than comparable "standard" tires that extends driving range, Michelin said.

Tire makers are using 3D or additive manufacturing technology to design new tread patterns for tires. Using 3D printers to make tooling for tire treads saves time and money. Engineers can evaluate new designs quickly.

Tire makers are using 3D or additive manufacturing technology to design new tread patterns for tires. Using 3D printers to make tooling for tire treads saves time and money. Engineers can quickly evaluate new designs.

Japan's Bridgestone is one of the first tire companies to start delivering lightweight EV-specific tires to auto makers. Volkswagen's Golf-sized ID-3 hatchback went on sale in Europe last fall with Bridgestone Turanza Eco tires, produced with the tire maker's Enliten technology, as OE. Weight is reduced by about 20%, or 4.4 pounds.

"Once you make a tire lighter, you can make it more fuel efficient because of the reduced amount of material involved. And that's something we're going to continue to expand," Dale Harrigle, Bridgestone's chief engineer for replacement tires, said.



Volkswagen's new EVs use Bridgestone's noise-reducing lightweight Turanza tires.

Bridgestone and other tire manufacturers are using 3D-printing technology to test new tire designs and tread patterns and to make molds for testing new ideas. Mr. Harrigle said Bridgestone is using 3D technology in part to test new designs for a tire's sipes — the grooves cut into the tread that help improve grip and reduce noise.

The Turanza tires, Mr. Harrigle explained, have noise-abatement technology in their grooves.

"There are little protrusions in the groove of the tire which is designed to break up the sound waves. Those are the types of technologies that we will be bringing forward into battery-electric vehicles' tire design."

Working together

While some EVs use off-the-shelf rubber, creating tires for the new generation of rugged, off-road electric vehicles and super- high-performance cars and crossovers presents a challenge.

Ford, for example, spent three years with Pirelli Tire North America engineers developing the tires for the Mustang Mach-E GT.

Rob Iorio, Mach-E vehicle engineering manager, said engineers at the two companies often worked side by side, driving test mules, collecting and analyzing data as they worked to create a tire that best fit the DNA of Ford's fastest electric vehicle.

The collaboration started with Ford engineers meeting with Pirelli engineers to explain their targets for the tires — including wet performance, dry performance, longitudinal and lateral performance and wear, Mr. Iorio said.

During the Mach-E GT's gestation, "we got submissions from Pirelli. They'll say, here's our first set of tires and they'll share their data. It was about managing the torque, hitting the range and being very efficient," Mr. Iorio told Automotive News., a Detroit-based sister publication of Tire Business.

"The GT is all-out performance. The full torque comes on in less than 500 milliseconds, so it comes on incredibly quick and it is a very high number. We worked very closely with Pirelli to ensure the tires will grip. What we call the longitudinal mew has to be tuned to that 0 to 60 time," he said.

Larger electric trucks, such as the GMC Hummer and Rivian's battery-powered delivery van for Amazon, are even tougher tests for tire companies.

"They present a bigger challenge because of the added weight of the battery pack," Goodyear's Mr. Rohweder said.

"We are seeing higher and higher load indexes requested by [vehicle] manufacturers. They want the same functionality" as internal combustion engine vehicles. The tires also have to be super-strong to stay on the rim while taking the punishment of driving over rocks and stumps and through deep, jagged ruts.

"While EVs do present some unique differences over ICE vehicles, specifically the way torque comes on and the stress on tires, the overall development and testing for tires on any of our vehicles is very similar," David Cowger, General Motors' engineering and technical leader for tires, said.



Steve Fecht for General Motors

The Michelin Uptis Prototype is tested on a Chevrolet Bolt EV Wednesday, May 29, 2019 at the General Motors Milford Proving Ground in Milford, Michigan. GM intends to develop this airless wheel assembly with Michelin and aims to introduce it on passenger vehicles as early as 2024. (Photo by Steve Fecht for General Motor

“We work closely with our tire suppliers during the development process on the various performance metrics that need to be achieved, as well as the vehicle metrics itself. As you may have noticed on the GMC Hummer EV, we have an eight-lug wheel pattern, something that you would also see on our HD trucks which make a lot of torque.”

Beyond rubber

Since 1888, when Scottish veterinarian John Boyd Dunlop developed a viable concept for a pneumatic tire, the main ingredient in nearly all tires has been rubber.

That might not be the case in the future. One technology to watch is Michelin’s Tweel — an airless tire-and-wheel combination. It’s now in production for light-duty tractors, lawn equipment and off-road recreational vehicles.

“I think you are going to see more and more of what we call non-pneumatics, something that’s made of more of a plastic structure and has a tread to it,” Mr. Rohweder of Goodyear said.

Poly-resin spokes are mated to what Michelin calls a shear beam assembly, basically a mechanical spring. The one-piece Tweel bolts on to the axle. The tread is still a rubber compound.

Two years ago, GM and Michelin began working together on a road-going version of the Tweel, called Uptis, that could be on EVs by 2024.

Other companies are looking at similar developments.

“I think you are going to see more and more of what we call non-pneumatics, something that’s made of more of a plastic structure and has a tread to it,” Mr. Rohweder of Goodyear said.

“Those are still coming along as far as being able to carry the load, achieve the speed and develop the forces, but the intent there is to create a new way of carrying the load and transmitting the forces to the vehicle.”

Airless tires still have a long way to go, however.

“With non-pneumatics there’s a bit of a weight penalty there and there’s still a performance trade-off. It’s not quite the same, but that technology is coming,” Mr. Rohweder said. “Could it evolve into a wheel and tire that is better than what we have at present? Potentially in the future, yes.”

FEDERATED INSURANCE FIGHT BACK AGAINST CYBER-ATTACKS



by Reza Kamrani
Account Representative,
Associations, Federated Insurance

Federated insures over 300 WCTD members in western Canada. They range from small rural independents to national brands and buying groups.

Phishing is a type of cybercrime where fraudulent communications are used to trick users into revealing sensitive information, like passwords or credit card information.

What is phishing and how can you prevent it?

You don't always need a sophisticated hack to gain access to into a business' database. In fact, all it could take is one click in an email to compromise your data security. Fraudulent emails, phone calls, and text messages are all common mediums for phishing attacks that cybercriminals use to hack and steal sensitive information.

These attacks can cause a business to experience reputational damage with clients and customers, financial losses, data leaks, or even legal trouble. That's why it's important to educate yourself and your employees on what phishing schemes are and what to look out for to help protect your business from this growing threat.

What is phishing?

Phishing is a type of cybercrime where fraudulent communications are used to trick users into revealing sensitive information, like passwords or credit card information.

Phishing attempts can occur through a number of different mediums, including email, phone calls, text messaging, or even faxing. Sometimes phishing schemes will target large groups of users at once, employing a strategy known as "volume mailers," or they'll be more specific and direct their efforts toward a business area, such as a call center or finance department. In some instances, they'll even target their phishing emails or phone calls to a specific role (e.g. a finance clerk) or individual. For instance, they may reach out to the CFO or someone in accounting since they have the most direct access to the company's finances.

Examples of common phishing scams

The more emotionally charged the message, the more likely you'll click or comply before really considering all the details. The most recent approach is to use the COVID-19 pandemic in phishing scams and take advantage of people who are worried about the virus.

Scammers have been seen to pose as health professionals, claiming to represent organizations like The Canadian Red Cross or World Health Organization (WHO), to send out false information. The goal is to trick people into clicking malicious links in order to steal sensitive information from your database. However, it doesn't end at emails, messages connected to COVID-19 can also come in the form of spam phone calls and text messages.

Other examples of common phishing schemes include impersonating the Canada Revenue Agency, especially during tax season, or impersonating members of law enforcement.

How to spot a phishing email

It's vital that all employees know how to spot a phishing email, so they don't accidentally click a dangerous link or send out information they shouldn't. Learning a few quick tricks on how to spot a suspicious email can save your business a lot of money and time in the future. Below, we outline some tips:

- Be suspicious: First, ask yourself a few questions like, "Was this an email I was expecting?" or "Do I normally do business with this person?" Sometimes phishing emails are meant to make us panic, claiming things like information has been stolen and then offering a quick fix. Be wary of emails like this, as they're generally a scam.

It's vital that all employees know how to spot a phishing email, so they don't accidentally click a dangerous link or send out information they shouldn't.



YOUR BUSINESS MATTERS

- When in doubt, proofread: Sometimes hackers will miss spelling mistakes and incorrect grammar. Read any communications you receive very carefully, and if you do spot some mistakes, be wary.
- Check e-mail addresses and links: Some phishing emails will be sent from email addresses you can immediately tell are not legitimate. In other cases, you may have to use your mouse to hover over the name of the email sender to see the address it came from. If someone claims they are emailing you from a trusted financial institution, but their email address doesn't end in that institution's name, that could be a red flag. It's also important to hover over any links that are included in the email to make sure the URL matches the one it purports to lead to.
- Be on the lookout for calls to action: In order for a phishing email or phone call to be successful, they need the recipient to take some sort of action, whether that be providing your

login credentials, clicking a link, or performing a certain task. Be on the lookout for calls to action. Does the email request information from you? Does it ask you for your username or want you to log in to a website to access something? Does it contain links or password, an attachment you weren't expecting? If it does include any of these requests, use some of the other tips provided to make sure it's from a legitimate source. Help protect your business. Despite all of your precautions and employee training, sometimes a phishing email or phone call can be successful and lead to a range of problems for your business. You may have to deal with financial losses, data leaks, reputational damage with clients and customers, or even legal trouble. Cyber risk insurance can help with the costs of some of these issues and ensure your bottom line isn't negatively impacted. Visit our cyber risk insurance page today to learn more about how we can help your business!



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CREATING A CULTURE OF SAFETY

— TIRE BUSINESS

Tire service and automotive repair can be dangerous, yet that danger can be minimized with adherence to proper safety policies, protocols and procedures.

Shop safety starts with common sense, reinforced with a shop safety program. Having specific plans in place with steps performed consistently can help keep you, your employees and your customers stay safe.

Aside from legal and ethical considerations, maintaining a safe shop floor creates a better work environment for your team. It also can help you attract and retain top talent by showing you're serious about investing in their well-being as a priority.

Shop safety must be more than just lip service and "safety first" mantras. Safety needs to part of the shop culture, encouraged and enforced with consistency at all levels of the organization.

Shop safety must be more than just lip service and "safety first" mantras. Safety needs to part of the shop culture, encouraged and enforced with consistency at all levels of the organization.

If safety isn't fully embraced as part of the shop culture, accidents more likely are to happen more often. Shifting your culture starts with getting employees enthusiastically engaged

While some incidents are unexpected and can be difficult to anticipate, the majority of accidents stem from steps or behaviors not performed properly or by the attitudes of employees.

If safety isn't fully embraced as part of the shop culture, accidents more likely are to happen more often. Shifting your culture starts with getting employees enthusiastically engaged

This includes rewarding employees for milestone days of being "accident free," recognizing team members for catching and correcting potential safety concerns or making sure the proper steps are followed and repairs are performed right.

Occupational Safety and Health Administration (OSHA) guidelines provide an essential framework, while procedures, consistent training, team involvement and checklists can help communicate expectations and confirm that all the right tasks are followed. Not only does this protect those lives in your care -- customers and employees -- but it also helps protect your shop should an incident occur.

IMPORTANT: WHEEL STUDS RECALL INFO



FCA US LLC is voluntarily recalling an estimated 446,643 U.S.-market vehicles to correct their service and owner's manuals, and inspect and replace their wheel studs, as needed.

Routine customer data analysis led to an FCA US investigation that discovered certain service and owner's manuals contain incorrect lug-nut torque instructions. Accordingly, the corresponding vehicles may have had their lug nuts over-torqued, a condition that could conceivably compromise studs and lead to wheel separation.

There is no component defect and torque applied during vehicle assembly is within specification, so the recall condition may only be present in vehicles that have been subject to wheel-removal as part of a service or upfit procedure.

The Company is unaware of any related injuries or accidents.

Dealers are currently in possession of correct service instructions, and production vehicles are now being delivered with updated owner's manuals. The campaign is limited to vehicles equipped with dual rear wheels and flanged lug nuts.

Affected are certain model-year 2012-2021 Ram 3500 heavy-duty pickups, and 4500 and 5500 cab-chassis vehicles. FCA US will advise these customers when service becomes available; those with additional questions or concerns may call 1-800-853-1403.

As with all safety recalls, service will be provided of charge.

The recall affects additional vehicles in Canada (est. 31,086), and certain markets outside North America (est. 104). An estimated 32,365 Ram 4000 cab-chassis trucks are affected in Mexico.

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FISHER: VALVE-STEMS, INSTALLATION 'GET NO RESPECT'



by Peggy J. Fisher
Tire Business

The valve stem is probably the one component in the tire and wheel assembly that is most taken for granted and least thought about.

Like Rodney Dangerfield, it “don’t get no respect” or at least not much despite the fact it performs the vital function of enabling inflation pressure to be added to the tire and then seals it in. When valve stems fail to seal or leak, you have a problem.

Commercial tire dealers have to stock a lot of different valves to service all different customers.

Be sure always to buy quality valve stems from a reputable supplier. The Tire & Rim Association (T&RA) and the Society of Automotive Engineers (SAE) have established standards for design and performance requirements for aging and ozone resistance.

Good valve stems should be marked with the TR (Tire & Rim) number, the manufacturer’s name or trademark, part number and country of origin. Not all manufacturers will put all of this information on the valve stem, but the more information you have, the more reputable the manufacturer is and will stand behind its quality product.

In the last several years, cheap, off-shore valves have been coming into North America. The quality of these valve stems varies from one manufacturer to another and from one shipment to another.

There may not be markings on these valve stems, so if a problem does arise with them, it is difficult to impossible to go back to the manufacturer. If the price is too good to be true, run away.

There are several components to the valve stem assembly: the valve stem, grommet or O-ring, valve core and valve cap. Each performs a vital function in ensuring that tires are properly inflated for thousands of miles. If any one of these fails or goes missing, the tire is in jeopardy.

Be sure always to buy quality valve stems from a reputable supplier. The Tire & Rim Association (T&RA) and the Society of Automotive Engineers (SAE) have established standards for design and performance requirements for aging and ozone resistance.

Let’s look at each.

Most tire valve stems are made of brass since brass is corrosion resistant, can be alloyed for ease of machining and can be bent easily to facilitate servicing.

Rubber also adheres to brass fairly easily, a trait that is necessary especially for high-pressure valves used in truck tires, which need good rubber grommet-to-metal adhesion to keep the grommet attached to the valve.

The most common valve stems for steel wheels used in heavy-duty truck applications, which usually have a 0.625-inch valve hole, are the TR500, TR501 or TR570 Series clamp-in style valves.

The Tire & Rim Association (T&RA) and Society of Automotive Engineers (SAE) have established standards for valve stems.

However, trucks are being imported with steel wheels that have 9.7 mm (0.382-inch) valve holes and require “MS” Series valves, which have black O-rings and are similar to the TR540 Series valves.

The O-rings should be heat resistant as well. Silicone O-rings can be red or black. Red O-rings are designed for high-temperature applications.

Valve stems used in aluminum wheels must be plated so that they will not corrode the aluminum. There are several different types of truck valve stems for aluminum wheels depending on wheel type.

Aluminum wheels with 9.7 mm (0.382-inch) valve holes use O-ring seal type TR540 Series and grommet seal type TR550 Series valve stems.

The rim thickness required for these valves is 0.218- to 0.330-inch. Aluminum wheels with valve holes that are 0.625-inch use TR509 through TR511 valves. European 335mm bolt circle wheels use MS Series valves.

High-heat-resistant grommets should also be used since the tire and wheel assemblies are so close to the brakes.

The temperature range for most truck valve grommets is -40°F (-40°C) to 250°F (121° C), but there are also grommets available that are rated at 400°F (204°C) and should be used in applications where excessive heat is generated, such as in sanitation operations.

Grommets can be red or black, but not all red grommets are heat-resistant, so it is wise to check with your valve supplier to ensure you are getting heat-resistant grommets.

The valve core is a critical component within the valve stem. It opens and closes the valve and allows the inflation pressure in the tire/wheel assembly to be adjusted. If there is no valve cap on the valve stem, dirt, ice, debris, etc. will prevent it from sealing properly.



Valve stems should be inspected every time a tire is changed. It is not necessary to change the valve stem at every tire change but it is necessary to install a new valve core.

It also is exposed to heat, so special high-temperature cores are available for applications where excessive heat is generated. These valve cores usually have a red seal indicating a temperature range of -40°F (-40°C) to 280°F (121°C) and are designed for medium and heavy-duty truck applications.

Filter valve cores that prevent debris from entering the valve sealing area are required for use in tire/wheel assemblies that have some aftermarket materials installed inside, such as balancing granules/powders.

Special valve cores with low crack pressures are used in the hoses of automatic tire-inflation systems (ATIS). Each brand of ATIS may be different and require a specific crack-pressure valve.

If you have to replace an ATIS valve core, check with your fleet customer to determine which core to use. Never replace the special valve core at the end of the hose where it connects at the hub with a standard valve core.

Central tire-inflation systems (CTIS) that inflate and deflate tires on demand do not use valve cores in the hoses or in the valve stems.

The proper procedures must be followed when installing a valve stem. On aluminum wheels a non-water based tire lubricant or a dielectric grease should be used on the valve-stem threads, grommets or O-rings prior to installing the valve. (Do not use anti-seize type compounds.) This prevents corrosion from growing around the O-ring or grommet, which squeezes it and causes leaks.

Care should be taken when installing the valve stem so that the O-ring is not nicked or damaged, as this will cause a leak as well.

All truck tire valves must be installed with the proper torque. TR500, TR501 and TR570 Series valves should be torqued to 35 to 55 in.-lbs. "MS" Series should be torqued to 106 to 133 in.-lbs.

TR 540 and TR550 Series should be torqued to 80 to 125 in.-lbs. TR509 through TR511 should be torqued to 100 to 125 in.-lbs.

The only way to know you have tightened valve stems properly is to use a valve-stem torque wrench, available from any reputable tool supplier.

Valve cores must be installed properly as well. Over torquing valve cores can damage the valve cores and valve-core seats, which will cause leaks. Cores should be tightened to 2 to 5 in.-lbs. of torque, which is essentially hand tight.

To be precise, find torque wrenches for valve cores from tool suppliers also. Always store valve cores in a box and not loose in a dirty shop environment. They must be kept clean to ensure an air-tight seal is achieved when installed in a valve stem.

Valve caps provide the final seal to the valve stem and prevent contamination of the valve core. They keep dirt and debris out of the valve and maintain inflation pressure if the valve core leaks.

It's a pretty important job considering how many tire and wheel assemblies are running around right now without valve caps.

There are two types of valve caps: sealing and non-sealing. Non-sealing valve caps are usually plastic and may come with new valve stems to keep dirt out of them. Medium and heavy-duty truck tire valves require a metal, sealing, high-temperature valve cap.

Inflate-through valve caps are designed for high-pressure truck tire service and act as an inflate-through extension as well. They provide two seals and allow tires to be gauged and pressures to be adjusted without removing the valve cap, which saves about 65% of the time when checking tire pressures.

They operate like a check valve and become tighter as inflation pressure is added. Inflate-through valve caps should never be used as a replacement for valve cores.

The internal seal in these valve caps can be distorted if they are over torqued so they should be installed hand tight. Pliers should never be used to install them.

Like any other component, valve stems require maintenance. Valve stems should be inspected every time a tire is balanced or the pressure is checked.

Check to see that a valve cap is installed, and look for bent stems and damaged threads. If the valve cap is missing, ensure the valve stem is free of debris.

If the threads of a valve stem are damaged and a valve cap cannot be installed or the threads on the inside of the valve stem will not allow the valve core to be properly installed, the valve stem should be repaired. A valve repair tool can extract damaged cores, rethread inside the stem and rethread the outer part of the stem as well.

Valve stems should be inspected every time a tire is changed. It is not necessary to change the valve stem at every tire change but it is necessary to install a new valve core.

Grommets should be inspected and replaced as needed. If the valve stem requires replacement, always check the rim valve hole for nicks, burrs and corrosion and lightly smooth out the surface to remove them.

On aluminum wheels, if the valve-hole seating surface is severely pitted, remove the wheel from service.

You see there are a lot of things to like and respect about valve stems, but you have to treat them right and give them some attention. You can't treat them like Rodney Dangerfield.

To put a smile on your face today, I'll share with you one of my favorite Rodney Dangerfield one liners: "Even when I was a kid, I got no respect. I could tell that my parents hated me. My bath toys were a toaster and a radio."

Peggy can be reached via e-mail at tirebusiness@crain.com. Her previous columns are available at www.tirebusiness.com.

U.S. TIRE DEMAND GROWTH ACCELERATING — USTMA FORECAST

—TIRE BUSINESS



Demand for tires in the U.S., especially truck tires, has accelerated over the past few months at a pace that could lead to record annual shipments, according to the latest forecast from the U.S. Tire Manufacturers Association (USTMA).

The industry trade association is forecasting double-digit growth in demand for medium/heavy truck tires at both the replacement and original equipment markets, growth that would support overall shipment increases of 10.9%, to 336.1 million units.

The projection represents an increase of 6.4%, or 20.5 million units, over the forecast issued in March, as well as 11.2% ahead of 2020's shipments.

In issuing this forecast, the USTMA took into account a number of factors, including:

- Strong shipments during the first half of 2021;
- Improved outlook for vehicle miles traveled;
- Higher OE sales in previous years impacting replacement cycles;
- Reduced short-term OE sales plus the increased average vehicle age impacting replacements; and
- Increased online shopping and last-mile delivery.

The trade group did not comment on the potential impact on supply of the elevated import duties imposed earlier this year on imported car and light truck tires from South Korea, Taiwan and Thailand, which represented over a third of U.S. aftermarket shipments last year.

By category, the shipment forecast breaks down as:

Replacement market:

- Passenger — up 10.1% (10.6 million units) to 224.4 million units.
- Light truck — up 13.2% (4.3 million units) to 37.3 million units.
- Truck/bus — up 14.6% (2.8 million units) to 21.9 million units.

Original equipment market:

- Passenger — up 9.9% (3.7 million units) to 40.9 million units.
- Light truck — up 6.2% (300,000 units) to 5.7 million units.
- Truck/bus — up 25.3% (1.2 million units) to 5.9 million units.

The trade group's forecast represents a 6.5% improvement overall versus the annual projection the USTMA issued in March, led by marked increases in the shipment projections for the replacement market. In particular, the forecast for truck/bus tires is up nearly 12% over that published in March.

The USTMA bases its forecasts on input from its 13 tire manufacturer member companies.

CONTINENTAL DRIVES PARTICLE RESEARCH WITH HELP OF SUPERCOMPUTER

— BY TODAY'S TRUCKING

Joint research project receives 43 million core hours of supercomputer time to further research decomposition of rubber polymers



Continental, the University of Southern Denmark (SDU) and the École Normale Supérieure de Lyon in France have received a grant worth 43 million core hours of supercomputer time for their joint basic research project. The project, which aims to drive fundamental understanding of tire and road wear particles, has been in existence since 2014. Its goal is to learn more about the decomposition of rubber polymers to better understand the wear behaviour of tires.

The associated simulations of the behaviour of complex polymer structures are very time-consuming. For this reason, the project partners applied for the Partnership for Advanced Computing in Europe (PRACE) initiative. With the digital computing power granted, they now have the opportunity to perform polymer simulations in greater depth and on a broader scale.

“With the help of the supercomputer, we can for the first time perform comprehensive simulations on molecular level. The results of this basic research will contribute to a more complete understanding of the formation of tire and road wear particles, and enable us to design

the materials we use for tire construction even more sustainably in the future,” says Dr. Andreas Topp, Head of Materials, Process Development and Industrialization of the Tires business area at Continental.

Continental systematically invests in research and development in the fields of new technologies, alternative materials and environmentally compatible production processes. Through these efforts, by 2050 at the latest the premium tire manufacturer is aiming to gradually transition to 100 percent sustainably produced materials in its tire products.

The support granted comes in the form of access to the 9.4 petaflops Joliot-Curie supercomputer at the CEA's Very Large Computing Center (TGCC) in Bruyères-le-Châtel, France. With its performance of 1,000 trillion calculations per second, it is one of the fastest supercomputers in the European Union. Supercomputers are used in science today, in addition to theory and experiment, to simulate particularly large and complex data sets so that they can be evaluated efficiently afterwards. Continental also uses supercomputers, for example, to develop future technologies in assisted, automated and autonomous driving.

Many issues about tire and road wear particles are still unresolved. “In recent years, we have systematically invested in the research and development of new, sustainable production processes as well as materials to make future tires even more energy-efficient and sustainable. Such processes are technologically very demanding and require a fundamental understanding of the tire material at various levels,” says Dr. Peter Zmolek, Head of Materials Technology Research and Development of the Tires business area at Continental.

Optimum grip in any traffic situation is a key function of tires. Grip enables safety, for example when accelerating and braking. The transmission of power during this process results in combined wear particles from the material of the tire tread and the road surface. Continental's aim is to minimize the effect of tire and road wear particles on the environment by improved tire design. Continuous improvement of mileage and wear rate without compromising safety is therefore an important criterion in Continental's tire development.

Continental systematically invests in research and development in the fields of new technologies, alternative materials and environmentally compatible production processes. Through these efforts, by 2050 at the latest the premium tire manufacturer is aiming to gradually transition to 100 percent sustainably produced materials in its tire products.

Continental is a member of various organizations, projects and initiatives that are researching the topic of tire and road wear, as well as being in continuous dialog with international institutions, national agencies and other industry sectors. For example, the tire manufacturer is a founding member of the Tire Industry Project (TIP), which drives research into the potential impacts of tires on the environment throughout their life cycle.

OK TIRE PNEUS STE-BRIGITTE NAMED NATIONAL STORE OF THE YEAR 2020

— TIRE BUSINESS

OK Pneus SteBrigitte, Quebec, has been awarded OK Tire Stores Inc. "National Store of the Year" for 2020 announced at the company's 2021 annual conference, held virtually this year.

The honour of National Store of the Year is awarded to an OK Tire location that frequently upholds OK Tire's motto, "Honestly Driven" and consistently provides outstanding quality auto service to their community.

Store owner Martin Allard was presented with the award, celebrated by colleagues and industry partners.

"Receiving this award means so much to us. We strive to be a staple in our community, and being honoured with this award highlights our hard work and dedication to quality service and honesty," says Allard.

"We know we wouldn't be here today without the trust of our customers, and we're thrilled to continue to put our best foot forward for our community".

Since 2001, Allard and his partner Melanie Bedard have grown their business, expanding from a gas bar to three bays dedicated to automobile services and two bays for commercial truck business. They've been proud members of the OK Tire Family since 2013.

Martin has built his success on hard work and a keen vision; he is not afraid to try new and different ways of doing things when he sees an opportunity to better service his customers. With employees who are constantly upgrading their knowledge, he sets himself apart from his competition!

"Our 2020 National Store of the Year distinguishes itself from the others through their knowledge and reputation of always providing expert service". says OK Tire Chief Operating Officer, Michael Rutherford.

"Our 2020 National Store of the Year distinguishes itself from the others through their knowledge and reputation of always providing expert service". says OK Tire Chief Operating Officer, Michael Rutherford. "2020 brought many new challenges to communities across Canada, and we're tremendously proud of the team in SainteBrigittedesSault for continuing to uphold OK Tire's outstanding reputation and for setting a standard to inspire all store owners."

Additionally, this year's OK Tire Stores Inc. 'Regional Store of the Year' awards, recognizing the best service providers from a group of over 325 OK Tire retail locations nationwide, have been awarded. Stores awarded include:

- OK Tire Burnaby Kingsway (Pacific Region)
- OK Tire Drayton Valley (Alberta Region)
- OK Tire Brandon (Prairie Region)
- OK Tire Kingston (Central Region)
- OK Pneus Gatineau (Eastern Region)
- OK Tire Woodstock Carleton NB (Atlantic Region) OK Tire Kincardine Commercial (Commercial Store of the year)

For the second time in the history of the company, awards were given to the business partners who demonstrated outstanding commitment and support across three categories: Tire Supplier of the year - Toyo Accessory Supplier of the year - Wheel1 Dealer Support supplier of the year - NAPA Auto Parts OK Tire also recognized anniversary milestones for many of its employees and stores.

"We know our achievements as a whole are because of the dedication shown not only by our dealers but also from our employees," says Jim Caldwell, President and CEO of OK Tire. "We feel it's important to recognize our fantastic team across the country and acknowledge those who have made a significant impact on the success of our great company."

This year's Don Blythe Lifetime Achievement Award was granted to Greg Kwasnicki, Commercial Product Analyst, Inventory Management for OK Tire. Greg worked with OK Tire for 43 years and has since retired on February 26th, 2021. Congratulations Greg!

CONTI CANADA PARTNERS WITH ROCKY MOUNTAIN MOTORSPORTS RACETRACK

—TIRE BUSINESS

CALGARY, Alberta — Continental Tire Canada Inc. has become the exclusive tire sponsor for the Rocky Mountain Motorsports (RMM) racetrack in Calgary.

The racetrack is a \$35 million project planning to open in late summer. RMM will provide driving enthusiasts with a world-class experience like nothing else in Western Canada, the company said.

Continental Tire is contributing significantly toward an important safety aspect of RMM — the sponsorship will see more than 14,000 Continental brand tires at the RMM circuit to form tire wall safety barriers.

"We are very excited to be the tire partner of this new and elite motorsports facility in Calgary," Okan Sen, Continental Tire Canada's national marketing manager, said.

"This collaboration will make it possible for more customers to meet with Continental rubber and experience its superior safety and track performance qualities as well as expand Continental's motorsports footprint in Western Canada."

BRIDGESTONE TAILORS POTENZA FOR NEW LAMBORGHINI

—TIRE BUSINESS

Bridgestone has been selected as the exclusive tire supplier for the new Lamborghini Huracán STO, the luxury Italian manufacturer's road-homologated super sports car.

In addition to custom-designed Potenza Sport tires, the Lamborghini Huracán STO also can be fitted with custom Bridgestone Potenza Race semi-slick tires. These tailor-made Potenza Race tires offer excellent dry grip for outstanding lap times and reliable cornering, braking and handling on and off the track, the company claims.

Bridgestone said the Potenza Race tires "have been designed to enhance the incredible capabilities of the Lamborghini Huracán STO and let drivers experience true high-performance."

Building on Bridgestone's long heritage in Formula One racing and high-performance vehicles, the premium Potenza Race semi-slick tire has been customized for the first time for the Lamborghini Huracán STO. As such, the tire's tread is lined with the colors of Italy's il Tricolore — a nod to the fact that both the tire and vehicle have been designed in Italy — and features Lamborghini's distinctive markings.

The Potenza Race tire promises excellent dry grip, thanks to an optimized tread compound, pattern and sporty tire profile, which increases grip and handling in dry conditions, the company said.

The tire also boasts long-lasting on-track performance and outstanding lap time ability — a result of maximized contact area and even pressure distribution, which enhances braking and cornering. And with a carcass

design that enables high-performance on normal roads, the tire is engineered for both the road and track, the company added.

The company said development of the tire relied heavily on Bridgestone's virtual tire modeling and simulation technologies, which enable a digital twin of a tire to be developed and tested. In this project, virtual design and simulation enabled Bridgestone and Lamborghini to find the Huracán STO's optimal match to maximize the tire's contact area and distribute pressure evenly under the most severe cornering, braking and traction conditions.

The company said the use of the virtual technology reduced development time while offering increased flexibility. Overall, Bridgestone said virtual tire development can cut product development time and outdoor and fleet tire tests by up to 50%.

The virtual environment enables many more variants of a given tire to be tested, thanks to the extreme speed of modifying the digital twin of the tire and immediately submitting it to a subjective test on the driving simulator, to ultimately cut the vehicle's time to market.

The use of virtual technologies also ensures that the chosen tire is the ideal fitment, as many alternatives have been assessed during development, and it helps to deliver various environmental benefits: both natural resource use and exhaust emissions are cut as fewer prototype tires are required to be built and physical testing is reduced.

Bridgestone notes, on average, around 200 tires are saved for every project where Bridgestone's virtual tire development is used. This can lead to savings of around 60% on raw materials and CO2 emissions during the tire development phase.



In addition to custom-designed Potenza Sport tires, the Lamborghini Huracán STO also can be fitted with custom Bridgestone Potenza Race semi-slick tires.

MICHELIN SEES TIME TO ACCELERATE

—TIRE BUSINESS

Group Michelin's legacy has a natural momentum to it. And right now, the company is leveraging it like a lead foot to hit the gas pedal and accelerate — despite the pandemic — because a “revolution” is here.

Demand for tires is strong, and in the second half of 2021, Michelin sees continued pandemic recovery and the opportunity to grow, Alexis Garcin, chairman and president of Michelin North America Inc., told Tire Business in a recent interview.

“We are experiencing a moment now, where the automotive (industry) is probably on the cusp of its largest revolution, ever,” he said. “And we have a lot of opportunities here, because we think we have a role to play in its revolution.”

Michelin seeks to help usher the autonomous revolution, develop more sustainable and efficient products and, of course, make money, Mr. Garcin said.

Michelin is ranked No. 1 in tire sales, according to the 2020 Tire Business Global Tire Report. In March, it was named the most valuable tire brand, narrowly edging Bridgestone again, in Brand Finance's annual rankings.

Supply and demand

When the pandemic started, Mr. Garcin said his first reaction was to stay humble and find ways to stay connected to the people Michelin serves and its employees.

The bright spot as a business, he said, is that Michelin developed a “connectivity” within its culture to survive “any future head winds we may face.”

Michelin is using both 2020 and 2019 benchmarks to track progress this year. The pandemic skewed 2020 results, so 2019 numbers still are valuable. Comparing the two, Mr. Garcin said, allows the company to gauge pandemic recovery.

Mr. Garcin talked about the “local to local” aspect of Michelin, where, because of sustainability efforts, the company aims to sell products in the same regions it produces them.

He said it maximizes service to customers, because the supply chain is shorter, and it also has the least impact on the environment.

“We have been on that journey for many, many years,” he said.

“We are experiencing a moment now, where the automotive (industry) is probably on the cusp of its largest revolution, ever, and we have a lot of opportunities here, because we think we have a role to play in its revolution.”

— Alexis Garcin, chairman and president of Michelin North America Inc.

Mr. Garcin said keeping up with demand is “like hitting a moving target,” because as soon as the company meets the demand, it increases.

“The inventories across the entire chain are pretty low, and I think we are all in the same situation that we are trying to replenish inventory as fast as possible, because demand is getting higher every day,” he said.

The domino effect of ocean shipping delays has caused issues across the supply chain, and a lack of raw materials and other products has caused delays in production for many industries. Mr. Garcin said he believes the company's regional approach to production has helped mitigate some issues but not all.

“We had to take some extraordinary measures to air freight materials so that we are able to keep our factories up and running,” Mr. Garcin said, noting the premium cost they paid is less important than having supply for their customers.

And, he added, the company has not had to halt any production because of raw materials shortages.

“We are still running behind because demand is really surging more than the best scenario, but we are still really doing great,” he said.

The commercial segment continues to be strong for Michelin, and so does construction and agriculture. The two-wheeler sector has been “extraordinary,” Mr. Garcin said.

“When it comes to passenger cars, we see a strong momentum for every (tire) category.”

Michelin in Motion

Mr. Garcin, the North American head since 2019, has worked for Michelin for 19 years. Right now is the defining moment of the company, he said.

The company wants to use its tire experience to offer its customers something more.

Michelin in Motion is a campaign — or ideology — focused on three “inseparable criteria,” according to Mr. Garcin: People, profits and planet.

“If you know Michelin, you know we are passionate about people. ... People come always first,” Mr. Garcin said. “We focus a lot on our customers, we are close with them — our dealers, our partners.”

When it comes to profits, Mr. Garcin said the focus is on three main areas: Tires, artificial intelligence (AI) and technologies beyond tires.

“We want to accelerate the growth we are delivering,” he said.

He said Michelin's AI will grow around its tires as the firm has been developing digital capabilities during the last decade to understand what is happening on the cars from the tires — the point where it is touching the ground.

“Leveraging this, plus the incredible network we have across the U.S. and Canada, it opens the door to a new business model around services and solutions that we are already starting to deploy,” he said.

Mr. Garcin said Michelin is “investing massively in high-tech materials” to open the company up to new growth territories, like in aerospace or the medical sector, for example.



Michelin e.Primacy tire.

“At the same time, it will feed our ambition to bring — by 2050 — to market a tire that is made out of 100% renewable and recyclable material,” Mr. Garcin said.

Mr. Garcin said Michelin is starting to see the fruits of its labors when it comes to investments in hydrogen — “one solution for the future” — and in 3-D printing.

A decade ago, Mr. Garcin said Michelin started developing 3-D printers for use in its factories.

“Little by little we realized the potential was far bigger than that,” he said.

As an example, Mr. Garcin said several years ago, the company used its 3-D printing technology to design new tread structures where sipes open as the tire wears to allow a constant grip throughout the life of the tire.

AddUp, a joint venture created by Michelin and Fives Group in 2016 that specializes in metal 3-D printing, announced on May 28 the launch of its next-gen Formup 350 3-D metal printer.

Sustainability is an important factor in all aspects of how Michelin operates.

Mr. Garcin said when much of the world was locked down due to the pandemic a year ago, he took note of how “on one hand, you had nature flourishing ... and in parallel, you saw unemployment rising.

“Since that day, I thought to myself, ‘This is why we have to combine growth, profit development — motion, if you will — with the protection of the environment.’

“It’s not ‘or,’ it’s ‘together.’”

He said without balance the product will suffer and ultimately can’t be sustainable.

“Motion is life, but it should not be at the expense of the environment. Nor should the protection of the environment be at the expense of our lives, our mobility.”

EV tires

The company, he said, is always in a state of acceleration — building upon the technologies it has designed throughout its history. And the goal toward sustainable manufacturing has long been a project.

Mr. Garcin said while many in the industry may see electric vehicles (EVs) as a challenge, Michelin sees it as an opportunity, because it has been leveraging this technology in some way for 30 years.

In 1992, he noted, Michelin released what he called the first “green” tire, optimized for wet handling and rolling resistance.

“We were the first tire manufacturer bringing to the market a tire optimized in rolling resistance — meaning that with our technology we were able to limit the friction of the tire on the road, which could save gallons of diesel or fuel.”

Since then, Michelin has built upon optimizing rolling resistance, and it is “critical” as the industry shifts toward electric vehicles.

“A tire that is really optimized for rolling resistance has a direct impact on the range of an electric vehicle,” Mr. Garcin said.

Michelin more recently has launched an “eco-responsible, CO₂-neutral” tire, the Pilot Sport EV, designed to address the specific demands made by higher-torque electric-powered sports cars. The tire hit the North American market in April with sizes covering 18- to 22-inch rim diameters.

On average, Mr. Garcin said, the Pilot Sport EV will add up to 37 miles per charge.

Michelin also recently launched the e.Primacy in Europe, a tire the company claims provides an additional 7% range for electric vehicles. The tire is designed for SUVs and light truck EVs, and Mr. Garcin indicated the tire would be released in North America this year.

“We are a strong company with high values and a very strong and clear vision — that we have had for a very long time,” Mr. Garcin said. “And we are very excited for the future.”

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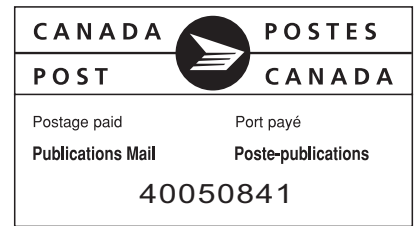
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