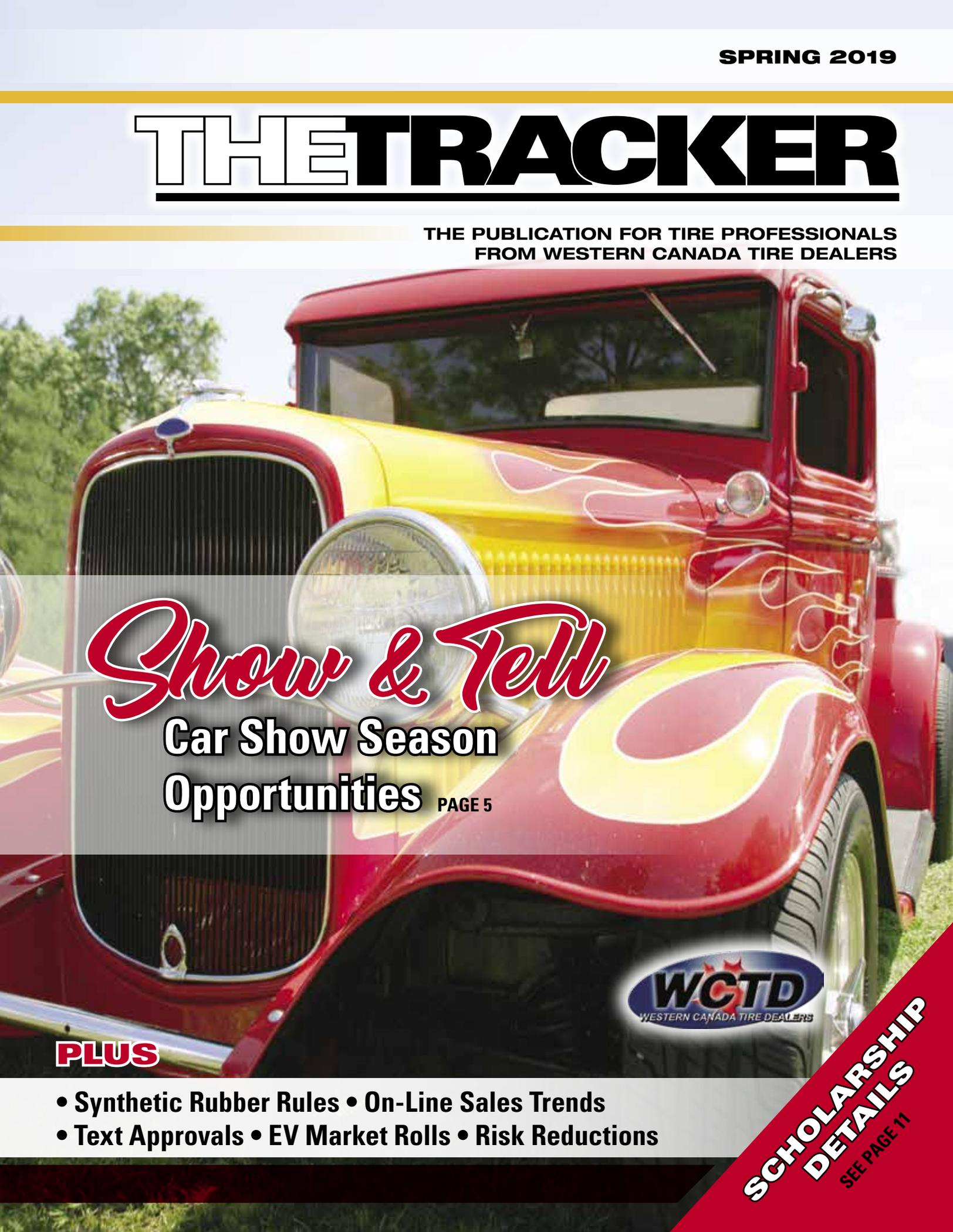


THE TRACKER

THE PUBLICATION FOR TIRE PROFESSIONALS
FROM WESTERN CANADA TIRE DEALERS



Show & Tell

Car Show Season
Opportunities PAGE 5



PLUS

- Synthetic Rubber Rules • On-Line Sales Trends
- Text Approvals • EV Market Rolls • Risk Reductions

**SCHOLARSHIP
DETAILS**
SEE PAGE 11



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www.wctd.ca



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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WCTD MEMBERSHIP APPLICATION

COMPANY NAME	
ADDRESS	
CITY	
PROV	POSTAL CODE
PHONE	FAX
EMAIL	
CATEGORY OF MEMBERSHIP (SEE BELOW)	
VOTING MEMBER a. Independent Tire Dealer b. Retreader	ASSOCIATE MEMBER, NON-VOTING 1. Jobber or Distributor 2. Manufacturer 3. Exporter or Mfg. Rep. 4. Dealer Support Services
MY BUSINESS IS MADE UP PRIMARILY OF THE SALE OF TIRES AND TIRE RELATED SERVICES	YES NO (CIRCLE ONE)
AUTHORIZED BY (PLEASE PRINT)	

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Time to Show 'n Shine



Paul McAlduff
President, WCTD

Car show season is in full swing through May, June, July, August and September. I'm not talking about new car extravaganzas designed to tease our customers into purchasing fresh vehicles with tires that won't need replacing for 50 to 100 thousand kilometres. I focus on collector cars, vintage, hot rod, classic, muscle, specialty, import. All things that stimulate interest and attract attention. Most of these car owners love to change their wheels and tires.

When a classic or custom car shows up at my store, I know we'll spend more time for less profit than the average sale.

But that's all right, because, guaranteed, it attracts interest. Pretty well everybody likes a cool car. Not only does it stimulate conversations in the showroom, customers will go home and tell their friends.

Think of how much that word of mouth advertising would cost you in real dollar terms. Better yet, if you are able to solve a car enthusiast's problem it's a pretty good bet they will pass on their good experience to their pals. Better still, you could take a few pictures and post them on your Facebook or Instagram page. You all have one, right? Strong visuals will only serve to broaden and strengthen your social network. Those few minutes invested can reap surprising rewards.



Do yourself a favour... get involved. Sponsor a local car show; then go out and have some fun.

But wait a minute! What am I still doing writing this column? I should be 'Past President' relaxing in some sort of semi-retirement. Well, things don't always work the way they are supposed to.

Health issues can delay shifts in responsibilities and everyone needs to help out. No doom and gloom here, just another opportunity for me to opine about our wonderful association.

Our Board of Directors Meeting & AGM in Victoria, BC was very successful. The location and venue were superb. And although we had a noticeable lack of participation, those who were able to attend accomplished a lot. Your Association has been able to guarantee the support of Ray Geleta as Executive Director and Tim Pawsey as Communications Director for a further two years. Neal Shymko has now taken over the role of President. Our bills are paid. Our supporters seem satisfied. The Tracker magazine is well read. And there is money in the bank.

It can't get much better than that, can it? Yes it can. I can now relax in my new position as 'Past President.' I wonder if they make a business card for that.

Just Sayin ...

More positive thoughts here...

Your Association has partnered with the Tire Stewardship B.C. to offer and manage a fifth scholarship for employees or their children. I personally know several of the past recipients of these grants and our help goes a long way towards their success. It would be wonderful if some of the

other Tire Stewardship programs were able to do the same. Talk to your partners and employees to see if any of them qualify to apply. The deadline is in August. If you look carefully in this issue you will find further information.





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We're proud of what we do on your behalf!

Ray Geleta
Executive Director, WCTD



WCTD enjoys a reputation as one of the industry's most successful Associations. Even though it's our job, we're proud of what we do on your behalf. A lot of work goes on behind the scenes all year round. But it also tends to crystallize around the time of our Board of Directors meetings, which we hold face to face, twice a year.

These meetings give us a chance to check on the Association's health—get an overview of what we're doing. And, yes, to see what we can do better. Last month's meeting, in Victoria, BC, yielded a treasure trove of information, some of which I'd like to share with you now.

The Federated File

As you know, we devote a lot of our energy to training and safety, so it's natural that—closely related as they are—these topics form the basis for a lot of discussions. We received some interesting information from Reza Kamrani of Federated Insurance.

He presented us with specific information regarding claims from independents compared to dealers belonging to groups. Federated experienced two large claims with WCTD stores last year. Both claims were due to significant fire claims. Such costs are spread across the board, not just within this industry but across the entire insurance world.

Federated is one of very few insurance companies whose personnel still visit the store to quote. This is a truly worthwhile benefit of which we believe many WCTD members may be unaware. In the coming months we will be working more closely with Federated to impress on the membership the many benefits offered, including how the insurer has responded to dealers in their time of need.

Safety First

The training schedule for the upcoming year will be announced shortly. We cannot over-emphasize how valuable a part this is of the association's activities and urge you to give thought now to as to which of your employees could well benefit from attending. We anticipate a strong response once the dates are announced.

Funding the Future

Speaking of benefits, we are moving into 'Scholarship Season'—that time of year when we invite eligible students to submit their applications for consideration. Please take note of the information on page 11 and be sure to circulate within your company. These are significant bursaries, which have benefitted many families over the years. Also, please note that

These meetings give us a chance to check on the Association's health — get an overview of what we're doing. And, yes, to see what we can do better.



the Tire Stewardship BC Don Blythe Scholarship is again offered this year. Please make sure you or your employees don't miss out!

Service rates need to be raised for 2019

Ray and Andrew will get together May 28 at 9 am to develop new Service Rates. Andrew to get Fountain and OK Tire price list. Agreed that it should be renewed annually.

And more ...

There was plenty more discussed, much of which will be forthcoming in coming weeks and months. One decision that has been taken is to not host any more National Conventions going forward. The WCTD board feels these events no longer have the relevance they once had. However, the association is involved in discussions with TDAC and the other regional Associations to deem what kinds of initiative are important and of interest to the membership. As always, we welcome your input on any pertinent topic that you would like addressed.

Passing the Gavel

In closing, I would like to thank sincerely out-going President Paul McAlduff for his invaluable support and wisdom over the last three years. And extend a very warm welcome to Neal Shymko as incoming president. The continued success of our association depends very much on contributions such as theirs.

2019 TORQUE CHARTS

Updated 2019 Lug Nut Torque Charts are now in stock. Contact Ray Geleta for your needs.

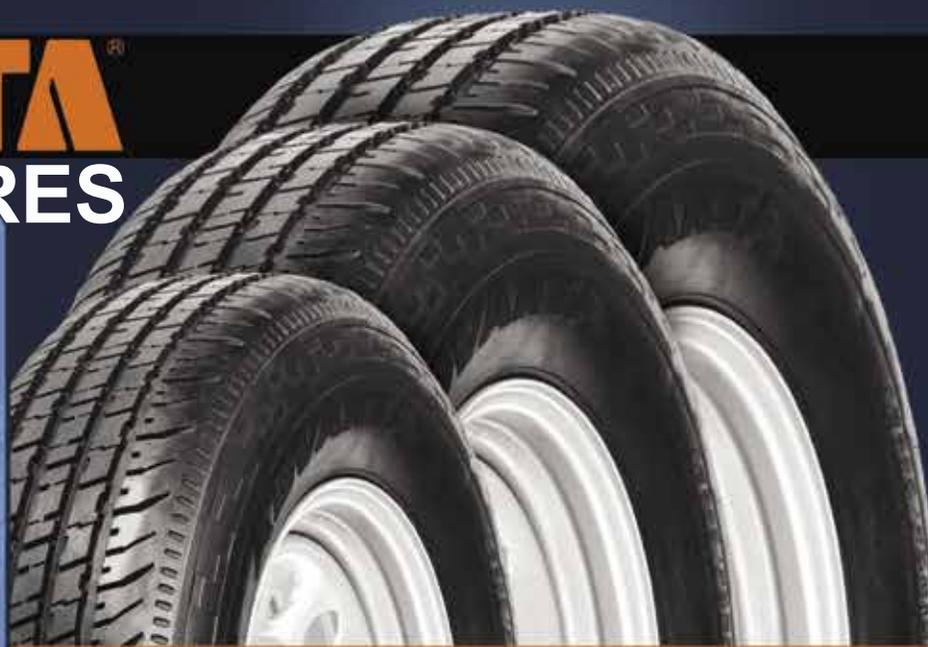
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Save at the Pump, Measure Tire Inflation Monthly

— TRAC PRESS RELEASE

Surging gas prices have made fuel efficiency a higher priority for Canadian drivers, according to a new national survey conducted by Leger in mid-April for the Tire and Rubber Association of Canada.

Nine-in-ten drivers surveyed (92 per cent) say fuel economy is now a higher priority for them and 90 per cent understand that proper tire inflation maximizes mileage and reduces fuel costs.

Drivers are right to think they can save at the pump by ensuring their tires are properly inflated. Industry studies show motorists can improve their gas mileage by 0.6 per cent on average – up to 3 per cent in some cases – simply by keeping their tires inflated to the vehicle manufacturer's recommended pressure. Additionally, underinflated tires can lower gas mileage by about 0.2 per cent for each one PSI drop in the average pressure of all tires. Driving a vehicle with just one tire underinflated by 56 kPa (8 psi) can increase vehicle fuel consumption by four per cent.

\$348 million wasted on fuel

According to Statistics Canada, in 2017 Canadians purchased 43 billion litres of gasoline. With a 0.6 per cent gas mileage improvement resulting from proper tire inflation, drivers would have avoided having to buy 258 million litres of gasoline and saved about \$348 million. Saving this much gasoline would also avoid the release of 593,000 metric tonnes of CO₂ into the atmosphere, which equals the emissions of 125,000 vehicles in a year. (Based on \$1.35 per litre and one litre of gasoline producing 2.3 kilograms of CO₂)

Tire industry research shows that one third of drivers typically have at least one tire underinflated by more than 10 per cent and one in ten have at least one tire underinflated by 25 per cent or more.

Disconnect between knowledge and practice

The survey's findings reveal a clear disconnect between understanding proper tire inflation improves fuel economy and knowing when and how to measure tire pressure.

- **Only 21 per cent of drivers measure their tires' inflation pressures monthly, which is the industry-recommended interval for pressure checks.**
- **63 per cent are unaware inflation pressures should only be measured when tires are cold.**
- **34 per cent refer to the air pressure stamped on the tire's sidewall when identifying the correct pressure for their tires. (The imprinted sidewall pressure is the maximum pressure a tire can contain under maximum load. Prolonged driving at this inflation pressure can result in uneven tread wear and reduced traction, particularly on wet surfaces.)**



Consumer education is clearly needed now more than ever to bridge these persistent tire inflation-related knowledge gaps that prevent optimal fuel efficiency, cause drivers to waste their hard-earned money and help protect the environment.

- **11 per cent rely on visual inspections to determine the correct inflation pressure for their tires. (A tire can be underinflated by 20 per cent or more and look normal.)**

“With gas prices surging to a five-year high, it is not surprising Canadian drivers want to make smart fuel efficiency choices,” says Glenn Maidment, president of TRAC. “Consumer education is clearly needed now more than ever to bridge these persistent tire inflation-related knowledge gaps that prevent optimal fuel efficiency, cause drivers to waste their hard-earned money and help protect the environment.”

Beyond tire pressure: fuel efficient tires

With growing environmental concerns globally, tire manufacturers continue to work on designing more fuel-efficient tires. These tires are designed with specialized tread patterns, advanced rubber technologies, lighter materials, and improved aerodynamics. The result is improved fuel economy in the range of two to four per cent. For motorists who drive 25,000 km per year, this translates to \$50 to \$100 in fuel savings per year, so the average motorist can expect to save hundreds of dollars over the lifetime of the tires. Find the fuel-efficient tire for your driving lifestyle here: www.fuelsavingtires.ca.

TRAC has developed an informative ‘*Get Fuel Fit*’ Guide’ to help motorists save fuel. The guide also offers valuable tips on tire selection and maintenance as well as driving habits that lower fuel consumption, advance safety and protect the environment.

Canadians can learn more about maximizing the value and performance of their tires by visiting www.betiresmart.ca.

Methodology

An online survey of 1,255 Canadian motorists was completed between April 12 and April 15, 2019, using Leger's online panel. A probability sample of the same size would yield a margin of error of ± 2.8 percentage points, 19 times out of 20.

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[www. WESTLAKETIRE.ca](http://www.WESTLAKETIRE.ca)

WCTD SCHOLARSHIPS



Scholarship deadline fast approaching!

WCTD Academic Scholarships

It's time to submit your application for the WCTD 2019 / 20 Scholarship program. If you're a member of the Association in good standing, don't delay to apply on behalf of your eligible family member!

www.wctd.ca/wp-content/uploads/2018/03/Scholarships-2018.pdf

TSBC Don Blythe Scholarship

In addition, Tire Stewardship BC (TSBC) has generously added another scholarship to our existing four scholarships. This scholarship is for \$2,000 and is in memory of Don Blythe, for his contribution to Tire Stewardship BC and to the tire industry in general. This scholarship is a separate application process, with different eligibility requirements. For complete details please go to:

www.wctd.ca/tire-stewardship-bc-establishes-don-blythe-scholarship/

WCTD Academic Scholarship Eligibility

- The applicant is the immediate family member (Son, Daughter or Spouse) or legal ward of a person who is a full-time permanent employee, for at least one year, of a company that is a current voting member of the WCTD; and has been a member in good standing for the previous five (5) years.
- The applicant must have been accepted to attend an accredited Canadian post-secondary institution and have registered for classes for the upcoming semester.

Application

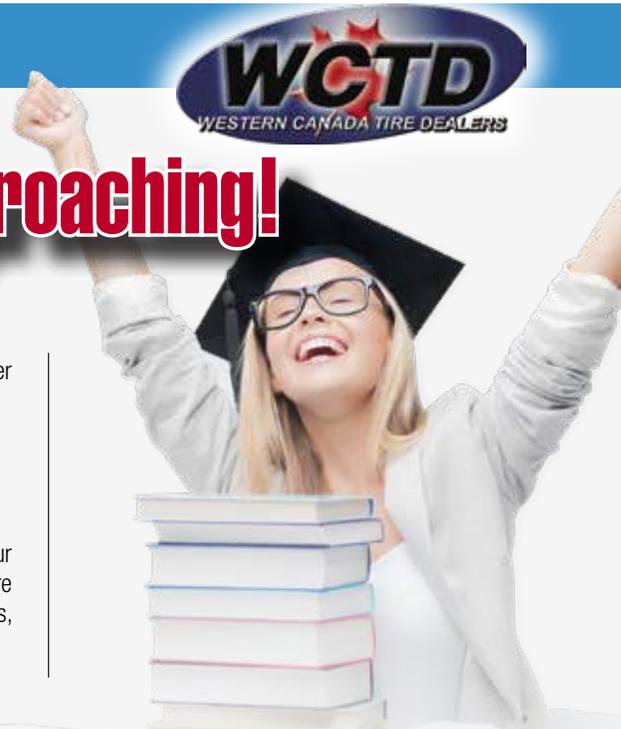
- **The deadline for applications is August 15, 2019.**
- All applications submitted must include the applicant's Social Insurance Number.
- The applicant must submit a résumé, not to exceed three (3) typewritten pages, outlining their education to date, any involvement in extra curricular activities, any academic honours or any community or volunteer work that they may have done. The applicant must also submit reference letters that confirm their involvement or achievements. Reference letters cannot be from family members and must speak to the achievements of the applicant.
- The applicant must submit a letter from a WCTD member confirming the current employment of an immediate family member.
- The applicant must have a complete transcript of all courses and grades sent to the Scholarship Committee no later than August 15, 2019. Transcripts must be submitted directly by the educational institution.
- The applicant must submit a confirmation of registration along with a tentative course schedule from an accredited post-secondary institution.

Awarding of Scholarship

Western Canada Tire Dealers is awarding four scholarships up to a value of \$2,000 each. The scholarship will be paid directly to the post-secondary institution at which the successful applicant is enrolled.

Application Deadline

The deadline for applications is August 15, 2019. Applications must be at the Scholarship Committee's office on or before this date. No applications will be accepted after that date. Incomplete or illegible applications will not be considered.



NOTICE TO PAST RECIPIENTS

Have you or someone you know ever been the beneficiary of a WCTD Scholarship? Over the years, many young people from members' families have received assistance for their post secondary education—thanks to the WCTD. Now we'd like to find out how they're doing. And how that scholarship might have made a difference—given them a step up or helped them achieve their life goals.

Is there anyone you can think of?
Please put them in touch: timp@wctd.ca

MAIL OR EMAIL APPLICATIONS TO:

**WCTD Academic
Scholarship Committee
65 Woodbine Road
Sherwood Park, AB T8A 4A7
Email: rayg@wctd.ca**

FREEDOM OF INFORMATION & PRIVACY

The information collected in this application is to be used for the sole purpose of assessment and evaluation of the WCTD scholarship and will not be used for any other purposes.

**DEADLINE
AUGUST 15!**

How can tire businesses MITIGATE COMMON RISKS?

Just like many other businesses, tire businesses face risks on a daily basis. Common hazards can arise when using basic things like electrical systems, lighting, water, and heating systems.

Working to combat those hazards is especially important today, as both the number of claims from tire businesses and the severity of those claims have increased between 2017 and 2018, according to Federated Insurance's internal claims data. So, what kind of issues can arise and what steps can you take to mitigate them?

What electrical issues could your business face?

If your business' electrical system is not being maintained properly, an electrical fire could break out, potentially damaging your building, as well as to your inventory. There are some steps you can take to help avoid this fate:

- Extension cords should only be used as temporary wiring, not as permanent wiring.
- All electrical outlets, switches, junction boxes, etc. should have covers protecting the wiring. Electrical panels should also have their doors attached and closed to protect the wiring and circuits.
- Regular inspections and maintenance should be performed by employees and maintenance personnel to check for any signs of electrical issues.
- You should also consider having the electrical system reviewed by an electrician or a professional who can perform thermal imaging on the system to search for hot spots.
- If any equipment is experiencing electrical issues or shorts, the equipment or batteries should be disconnected. This would include any vehicles, customer vehicles, equipment, and batteries.
- Batteries should be disconnected overnight, as this is a common cause of electrical shorts.

Extension cords should only be used as temporary wiring, not as permanent wiring.

As a business that deals with tires, you may also use electric charging stations.

When using these stations, there are a few risk management techniques to remember:

- Lift trucks are used by many tire businesses, and some use electric charging stations. To combat the possibility of a fire breaking out, these charging stations should also be separated from busy traffic areas and any combustibles.
- Charging stations also need to undergo regular maintenance and be inspected annually. There may be a need for more inspections if there's an incident or sign of trouble. Examples include a collision with the station, issues with the breakers, high temperatures in parts of the system, or the station's inability to charge equipment properly in the appropriate amount of time. If something like this occurs, the charging station should be inspected right away.

What risks can lighting systems pose?

If lighting systems are not properly maintained, they can sometimes lead to fires. To reduce risk, you should replace bulbs that are a concern, upgrade your electrical system, and install metal cages to either catch broken glass or break it up into smaller pieces, which will cool the shards before they hit combustible items, making them less likely to start a fire.

How can water damage affect tire businesses?

While water damage to tires would be minimal over a short duration of exposure, water is still a risk tire businesses need to be aware of. Why? Because water could be detrimental to any rims and accessories stored in the building, as well as any pallet jacks and lift trucks (especially if they are electrical). Water could also cause extensive damage to the building itself.

Depending on the building's proximity to water sources (including rivers, lakes, and oceans), and the likelihood of heavy rainfall (which could lead to surface flooding), varying levels of preparedness and planning are required. Preparations could range from reviewing the flood



IT'S IMPORTANT THAT RUBBER DUST IS KEPT IN A CONTAINED STORAGE AREA AND THAT YOUR BUILDING IS CLEANED REGULARLY.

IN WAREHOUSES, RECHARGING STATIONS FOR THE PALLET TRUCKS SHOULD BE PROTECTED AND UNPLUGGED.

risk of the building in question to reviewing drainage and landscaping, or even elevating the building you plan on using. Proper maintenance must be performed on the roof, eaves, and downspouts to ensure water is not finding its way into the building.

Any susceptible inventory and equipment should be protected by stacking products on shelves or pallets. It's also a good idea to keep electrical equipment like battery rechargers elevated and unplugged. In warehouses, recharging stations for the pallet trucks should be protected and unplugged.

It's vital to put a plan in place to remove water from the building as quickly as possible following a flood. This plan could include the availability of pumps or wet/dry vacuums, or an existing agreement with a contractor that states they'll come in as soon as possible to clean up and ensure there are no structural or electrical issues. There are also flood reduction products on the market, such as solid systems and inflatable flood prevention systems, that can help you better manage your risk.

What risks do HVAC / heating systems pose?

Heating, ventilation, and air conditioning systems (HVAC) can also lead to fires if not properly maintained. That's why proper maintenance is essential: it can catch any issues with the gas lines, electrical lines, pilot lights, and overall condition of the system. It's important to ensure that combustible items (like tires) are stored a safe distance away from HVAC systems, so the tires don't ignite. The National Fire Protection Association (NFPA) requires that overhead space heaters and radiant heaters be a minimum of 3 feet (0.9 m) from the top of a tire pile.

How can air compressors present a hazard?

Air compressors are pressurized vessels that all shops need, but they can also present a hazard, because electrical contacts within the air compressor motor or pressure switch can spark and increase the risk of a fire or explosion. That's why jurisdictional inspections must be done. In some provinces, like Ontario and Quebec, the tank needs to be inspected annually if it's greater than 24 inches (0.6 m). However, in Ontario, if the tank is greater than 23 cubic feet (0.65 cubic meters) or roughly 2 feet (0.6 m) diameter by 7.25 feet (2.2 m) long, it needs to be inspected every 36 months.

Want to learn more?

These aren't the only tire business risks you need to consider. There are a number of other hazards that a tire business owner should be aware of and protect against. To learn more, download our white paper from the Federated Insurance website...

www.federated.ca/pdf/Federated-White-Paper-tire-EN.pdf

Business Insurance!

Despite your best efforts to combat tire business risks, things can still go wrong. That's where the appropriate insurance coverage comes in. With the right insurance, if your business should suffer a loss, you're prepared — and won't have to cover all of the costs yourself.



A few words about us

We're Federated Insurance, a 100% Canadian-owned direct writing commercial insurance specialist that has been serving Canadian businesses of all sizes for over 90 years. That's nearly a century of building relationships based on trust and integrity. Visit us at www.federated.ca to learn more.

Let's be careful out there.



by Reza Kamrani, Account Representative
www.federated.ca

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OK Tire Announces \$100M Expansion of Distribution Capabilities

—TIRE REVIEW

OK Tire is investing \$100 million over the next five years to expand its distribution center capabilities across Canada, as it drives to grow market share as the country's largest independent tire and auto service retailer.

"Thanks to our dealers, we are experiencing phenomenal and consistent growth in our network on both the commercial and retail side. We are changing our business model to provide our dealers with everything they require to serve our customers' automotive needs better," said Jim Caldwell, president and CEO of OK Tire Stores Inc, at the time of the announcement at the beginning of April. "Today's announcement marks the beginning of a new OK Tire as Canada's premier tire and auto service company."

The distribution center expansion will add over 500,000 square feet to OK Tire's network over all regions in Canada over the next three years. Construction will soon begin on the first new distribution center in central Canada. More information will be released in the coming months about the distribution center locations, OK Tire says.

"Our objective is to future-proof our business, which is why we are installing state-of-the-art distribution systems at our new facilities. We will be able to carry more products and service our retail locations with an expanded line of tires and automotive products," said Michael Rutherford, the company's chief operating officer.

The distribution center expansion is the first major initiative of OK Tire's five-year growth plan and is the most significant expansion in the company's 66-year history.

"We are committed to adding value and profitability to our OK Tire retail stores and the company as a whole," Caldwell said. "As we go forward this will include looking at building our network through acquisitions that complement our existing network."



"Our objective is to future-proof our business, which is why we are installing state-of-the-art distribution systems at our new facilities. We will be able to carry more products and service our retail locations with an expanded line of tires and automotive products".



The distribution center expansion is the first major initiative of OK Tire's five-year growth plan and is the most significant expansion in the company's 66-year history.

YOKOHAMA 'TRIBOLOGY' research could yield better ice traction

— TIRE BUSINESS

Yokohama Rubber Co. Ltd. (YRC), together with researchers at Kanazawa University, have developed a way to visualize the “frictional state of contact” of rubber on ice, which YRC claims could lead to studless winter tire designs with improved grip on ice.

When running on ice, a tire is unable to make firm contact with the road surface due to the watery film generated by the icy surface, thus reducing the tire's grip, YRC said. Studless snow tires depend on tread patterns with high drainage performance and water-absorbing agents in the tread compound to counter the watery film.

Up to now when studying a tire's contact with the road, it has been difficult to distinguish the area where water is between the road surface and the rubber from the area where the rubber is in direct contact with the road surface (real contact area). As a result, it has been difficult to grasp the degree of real contact accurately.

Now, however, YRC said it expects the work conducted by YRC and researchers under Associate Professor Tomoaki Iwai with Kanazawa University's Tribology Laboratory into this phenomenon will enable the discovery of new compounding agents with enhanced water absorbency and facilitate the development of tread patterns that deliver higher drainage performance.

Tribology is defined as the science and engineering of interacting surfaces in relative motion, comprising the study and application of the principles of friction, lubrication and wear.

YRC's joint research with Kanazawa University led to the development of a testing machine equipped with a high-speed camera that enables visualization of a tire's contact with the ground and succeeds in identifying the real contact area. The partners also established an analytical technique for digitizing contact images, which led to evaluating the water absorbency and drainage of tire rubber numerically.

The machine is able to observe frictional behavior between a rubber sample and ice or a smooth transparent disk used to replicate ice at speeds of up to 31 mph (50kmh). Its high-speed camera can take 1 million micro-level images per second of the tire's contact area with the road surface, while simultaneously measuring the frictional force during the test.

Images taken with this testing machine are dark only in the real contact area. Rubber that includes a water-absorbing agent shows darkness over a wider area than rubber that does not include the water-absorbing agent, YRC said.

Furthermore, digitizing the image with the newly developed analytical



Tribology is defined as the science and engineering of interacting surfaces in relative motion, comprising the study and application of the principles of friction, lubrication and wear.



technique to associate the contact area with the frictional force revealed that the calculated numerical value has a high correlation with the frictional force of the rubber.

Yokohama pointed out that its three-year medium-term management plan, Grand Design 2020 (GD2020), includes a winter tire strategy that aims to assert performance leadership in winter tires supplied in the Japanese, European and Russian markets.



ELECTRIC VEHICLE GROWTH

will impact tire manufacturing, Smithers Rapra research says

— BRUCE MEYER, Rubber & Plastics News

The three main areas where the growth of electric vehicles will bring about changes in tire production will be with regards to range, vehicle torque and noise...

HANOVER, Germany—As the electrification of vehicles continues to make strides during the next decade, there will be a significant impact on the production of tires.

That's the conclusion researchers from Smithers Rapra came away with in doing a research on "The Impact of Electric Vehicles on Tires to YR2028," a paper presented by Bruce Lambillotte, vice president of technical consulting, during the recent Tire Technology Expo 2019 in Hanover.

The three main areas where the growth of electric vehicles will bring about changes in tire production will be with regards to range, vehicle torque and noise, Lambillotte said during an interview at the expo.

Smithers Rapra forecasts that the growth of electric vehicles will rise roughly nine-fold by 2028, from fewer than 5 million new registrations worldwide in 2018 to nearly 45 million a decade later. The Smithers VP said that includes all types of EVs, including full battery, hybrids, mild hybrids, plug-in hybrids and fuel cell hybrid vehicles.

the growth of electric vehicles will rise roughly nine-fold by 2028, from fewer than 5 million new registrations worldwide in 2018 to nearly 45 million a decade later.

The testing and consulting firm projects that over this period battery EVs will account for about half of all EVs sold, and the battery types—including such offerings as the Tesla and Nissan Leaf—also likely will have the most impact on tires.

Lambillotte said battery EVs can be characterized in a number of ways, one being that they're typically heavier and also limited in traveling range.

"It does not have the backup of an internal combustion engine within the same vehicle like some of the hybrids do," he said. "So it has range limitations. There has been some good battery evolutionary changes over the years, but still its range may be as much as 40 percent less as the range of an internal combustion engine vehicle."

Because of this, the tire needs to have good fuel economy. Primarily that means good rolling resistance, Lambillotte said, adding that tires for EVs may need to be as much as 20 percent or more improved in terms of fuel economy than for today's traditional vehicles.

"Normally we think of OE tires as needing rolling resistance to meet regulated demands, such as CAFE standards in the U.S. or in Europe for tire labeling, especially in the replacement market," he said. "For here we're talking for a different reason: First and foremost for range."

From a tread compound perspective, that typically has meant higher use of silica to boost rolling resistance. But Lambillotte said much of the advantage from that aspect probably has been accomplished.

There could be other changes that could improve rolling resistance, such as the height mass spec ratio of the tire. "A tall tire tends to have better rolling resistance, especially if it is a narrower cross section," he said. "And indeed one Tier I tire company is looking in that direction of



Bruce Lambillotte of Smithers Rapra at the firm's booth during Tire Technology Expo in Hanover, Germany.

PHOTO BY BRUCE MEYER, RUBBER & PLASTICS NEWS



The factors that will lead to growth in all areas is that there finally are becoming more options available to consumers in terms of the variety of EV modes for sale, and access to more charging stations.

modifying the outside dimensions of the tire aimed at improving rolling resistance above and beyond high silica, low rolling resistance treads.”

Torque, noise issues

Battery EVs can experience what has been described as rapid or instantaneous torque, a condition that will require that tires be able to sustain its performance with improved dry and wet traction capabilities, according to Lambillotte. “It’s something that requires refinement from both tire engineering and tire compounding in the tread areas.”

With regards to noise, the battery EVs are extremely quiet. “Whereas tire noise is a smaller percentage of total noise in an internal combustion engine vehicle, if you take away that engine noise, then the tire noise is more easily perceived and is a bigger percentage of the total sound being emanated,” he said.

It is estimated that tires for battery EVs may need to be as much as 30 percent lower in noise generation, the Smithers VP said. There has been a good deal of work to reduce noise for traditional engines, and some of that can be transferred for use in EVs.

One area of work for noise cancellation involves putting foam components inside the tire cavity to absorb noise.

“This may be an area where we’ll see revolutionary change,” Lambillotte said. “Perhaps we’re already seeing this revolutionary change in terms of additional materials used inside the cavity of the tire.”

Growth trends

During the period, Smithers Rapra is expecting 26 percent compounded annual growth rate for EVs, particularly as more public power charging stations are put into service. To date, he said it’s been somewhat of a vicious circle, with not enough EVs on the road to justify the investment in charging stations. Likewise, the growth in EVs has been hampered because there aren’t enough charging stations.

Typical charge times now can range from roughly 30 minutes on a supercharger to as much as eight hours for home charging stations.

While both Europe and the U.S. are starting to get more infrastructure, it’s clear that China will be the leader in EV growth. The Chinese government is heavily supporting the development of EV technology, and

is putting most of its resources behind battery EVs. With China promoting that type, it’s estimated battery EVs already represent as much as 79 percent of all EVs in China, according to the report.

The reasons for this are two-fold, the Smithers Rapra research showed. One is that battery EVs will reduce the urban pollution issues that have challenged China over the past several years, and the other is the government believes it will help reduce China’s dependence on foreign oil.

Smithers Rapra predicted that China’s new EV registrations will jump from a couple million in 2018 to about 19 million in 2028.

The next largest growth area likely will be Europe, going from fewer than 2 million in 2018 to about 13 million a decade later.

The U.S. will be third, climbing from about 350,000 units in 2018 to a bit more than 5 million in 2028.

Lambillotte said there are several factors that will keep U.S. growth of EVs well below that of China and Europe. “A special challenge to accelerating growth in the U.S. is the fact that the American consumer tends to want more range than the Chinese or European consumer, and indeed in many cases for good reason,” he said.

The factors that will lead to growth in all areas is that there finally are becoming more options available to consumers in terms of the variety of EV modes for sale, and access to more charging stations.

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U.S. electric vehicle market continues to grow, according to IHS Markit

— TIRE BUSINESS

Volvo expects plug-in hybrid versions of models such as the S90 (pictured) to soon account for up to 25 percent of global sales.

Registrations of fully electric vehicles reached a record 208,000 in the U.S. in 2018, according to recent analysis by IHS Markit, which also noted a growing loyalty among EV buyers.

New registrations for EVs during 2018 more than doubled versus 2017, while the EV market share has increased exponentially over the past three years, according to the data analysis company.

Not surprisingly, 59 percent of EVs were registered in California and nine Section 177 states (Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island and Vermont) that have adopted the same vehicle emission standards and hence are key markets for such vehicles, according to IHS.

California alone accounted for nearly 46 percent (95,000) of new EV registrations in 2018, according to IHS analysis.

Loyalty rates for EVs also increased, with nearly 55 percent of all new EV owners who returned to market during the fourth quarter of 2018 acquiring (purchasing or leasing) another EV, up from 42 percent in the prior quarter, according to IHS. The trend continued in January, with nearly 70 percent of EV owners returning to market for a new EV during that month.

“EV loyalty rates have been steadily increasing since their introduction by OEMs. This increase over such a short time frame demonstrates that a portion of the U.S. market is highly accepting of this new technology and has a growing comfort level with it,” Tom Libby, IHS loyalty principal, said. “As more new models enter the market, we anticipate an even further increase in loyalty to these vehicles.”

In addition, IHS forecasts a “considerable increase” in new fully electric models offered in the U.S. market over the next decade, with more than 350,000 new EVs to be sold in the U.S. in 2020, reflecting a 2-percent share of the total U.S. fleet.

By 2025, that figure is expected to increase to more than 1.1 million vehicles sold or a 7-percent share, according to recent IHS powertrain forecasts.

“A rapid increase in EV nameplates is the catalyst behind the projected growth throughout the next decade,” Devin Lindsay, IHS powertrain analyst, said.



EV loyalty rates have been steadily increasing since their introduction by OEMs. This increase over such a short time frame demonstrates that a portion of the U.S. market is highly accepting of this new technology and has a growing comfort level with it.



The greatest headwind for EV sales in the U.S. soon may be any elimination or delay to California’s Zero Emission Vehicles (ZEV) mandate by the federal government.

“While relatively successful models, such as the Tesla Model 3, mature in the market, other traditional auto makers will be rolling out not just one EV as we have seen in the past, but multiple models off dedicated EV platforms.”

Combined with anticipated entries in the market from start-up auto makers like Rivian, Lucid and SF Motors, as well as traditional manufacturers, U.S. consumers are expected to have substantially more choice on the dealership floor over the short-term, IHS said.

The greatest headwind for EV sales in the U.S. soon may be any elimination or delay to California’s Zero Emission Vehicles (ZEV) mandate by the federal government. The federal Environmental Protection Agency has proposed to withdraw the waiver and therefore the ability for California and the Section 177 states to regulate greenhouse gases separately from federal standards, according to IHS, predicting that if this happens, it could have a considerable impact on the EV market.

Meanwhile, despite the growing trend in the EV market, the internal combustion engine is not going away any time soon, with IHS forecasters anticipating the traditional vehicles to continue to dominate the global market until past 2030.

SYNTHETIC RUBBER outperforms natural rubber

— SOURCE: GLOBAL RUBBER MARKETS

Initial testing of tires made from the nature-identical, biomimetic synthetic rubber BISOYKA shows that they achieve around 30 to 50 percent less abrasion compared to natural rubber tires.

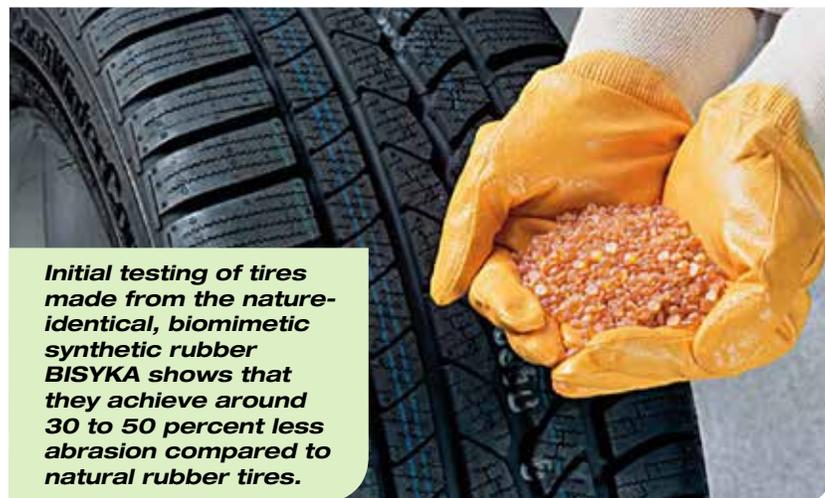
CREDIT: Fraunhofer IAP/Till Budde

Natural rubber from rubber trees is a raw material with a limited supply. Synthetically produced rubber, on the other hand, has not yet been able to match the abrasion behavior of the natural product, rendering it unsuitable for truck tires. But now, for the first time, a new type of synthetic rubber has been developed that achieves 30 to 50 percent less abrasion than natural rubber.

Truck tires have to put up with a lot: As a result of the heavy loads they carry and the long distances they travel every day, they are subject to heavy wear and tear. Consequently, the treads of the tires are manufactured primarily from natural rubber that comes from rubber trees and to date has demonstrated the best abrasion characteristics. Before now, artificially manufactured rubber has been unable to match the performance of natural rubber, at least in this respect. The problem with natural rubber is that the security of supply for this important raw material is endangered. In Brazil, the original home of the rubber tree, the fungus *Microcyclusulei* is laying waste to whole plantations. If the fungus crosses over to Asia, where major cultivation areas are located today, the global production of rubber will be threatened.

Biomimetic synthetic rubber with optimized abrasion behavior (BISOYKA)

In view of this threat, researchers at the Fraunhofer Institutes for Applied Polymer Re-search IAP, for Microstructure of Materials and Systems



Initial testing of tires made from the nature-identical, biomimetic synthetic rubber BISOYKA shows that they achieve around 30 to 50 percent less abrasion compared to natural rubber tires.



At Fraunhofer IME, scientists investigated rubber from dandelions. Like the rubber from rubber trees, 95 percent of dandelion rubber consists of polyisoprene, while the remaining percentage is made up of organic components such as proteins or lipids. The advantage of dandelion rubber over tree rubber: the former has a generation succession of just three months as opposed to seven years for the latter. That makes rubber made from dandelions an ideal starting point for investigating the influence of organic components on the rubber characteristics.

IMWS, for Molecular Biology and Applied Ecology IME, for Mechanics of Materials IWM and for Silicate Research ISC have now optimized the characteristics of synthetic rubber. “Our synthetic rubber BISOYKA – that’s a German abbreviation for “biomimetic synthetic rubber” – actually has superior characteristics to natural rubber,” says Dr. Ulrich Wendler, who heads up the project at the Fraunhofer Pilot Plant Center for Polymer Synthesis and Processing PAZ in the German municipality of Schkopau. Fraunhofer PAZ is a joint initiative between Fraunhofer IAP and Fraunhofer IMWS. “Tires made of the synthetic rubber lose 30 percent less mass than equivalent tires made of natural rubber. On top of that, the synthetic tires have only half the tread loss. Furthermore, the synthetic rubber can be produced on an industrial scale using existing plants and equipment. This means that the synthetic rubber offers an excellent alternative to natural rubber – including the do-main of high-performance truck tires.”

Targeted analysis of dandelion rubber

But how did the researchers achieve this higher performance? At Fraunhofer IME, scientists investigated rubber from dandelions. Like the rubber from rubber trees,



Tires made of the synthetic rubber lose 30 percent less mass than equivalent tires made of natural rubber. On top of that, the synthetic tires have only half the tread loss.

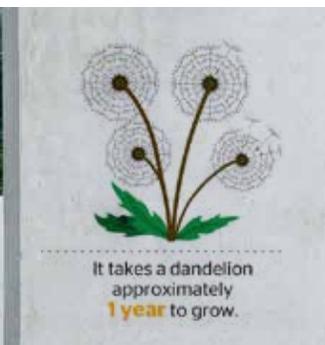


Synthetic rubber yields impressive results in practical tests

95 percent of dandelion rubber consists of polyisoprene, while the remaining percentage is made up of organic components such as proteins or lipids. The advantage of dandelion rubber over tree rubber: the former has a generation succession of just three months as opposed to seven years for the latter. That makes rubber made from dandelions an ideal starting point for investigating the influence of organic components on the rubber characteristics. To this end, the Fraunhofer researchers eliminated the key organic components involved in a targeted manner. After they had identified the organic components that were important for abrasion behavior, the researchers at Fraunhofer IAP synthesized the BISOYKA rubber out of functionalized polyisoprene with high micro-structural purity and the respective biomolecules. Their colleagues at Fraunhofer IWM and IMWS then investigated the characteristics of the rubber variants thereby obtained. To do this, they used extensional crystallization: If you stretch natural rubber to three times its length, crystalline regions form – the rubber hardens. “The extensional crystallization of BISOYKA rubber equals that of natural rubber,” explains Wendler. When making truck tires, the rubber is usually mixed with carbon black – which is where the black color comes from. Increasingly, however, manufacturers are adding silicates to the mixture instead of carbon black. This is where the expertise of Fraunhofer ISC comes in: At the institute, scientists investigate how new kinds of silica fillers can lead to optimum alternatives to natural rubber in the automotive industry.

After the development of the BISOYKA rubber, it was tested: Would it do what its extensional crystallization promised? The researchers handed over this question to an external and thus independent partner to investigate: Prüflabor Nord. For this purpose, four car tires were manufactured with a tread made from BISOYKA and they were then compared with tires with a tread made from natural rubber. The tests were carried out directly on a car that drove 700 circuits in one direction and then 700 circuits in the other direction. And the result? While the natural rubber tire was 850 grams lighter after the test and lost 0.94 millimeters of tread, the BISOYKA tire lost merely 600 grams and 0.47 millimeters of tread. The rolling resistance of the synthetic rubber was also better: While the natural rubber achieved a score of C on the traffic light labelling of the rolling resistance, BISOYKA achieved the higher score of B. “So far, we have only carried out initial tests with the BISOYKA tire blend, but they are extremely promising. As the next step, we want to further optimize the BISOYKA rubber. This concerns above all the proportion and the composition of the organic components. At the same time, we will adapt the formula of the tread compound for truck tires to the new rubber,” says Wendler. Currently the researcher and his team are looking for cooperation partners who will bring the product to the market.

On April 4, 2019, the researchers are presenting their results at a transfer workshop at the annual conference of the German Rubber Society, East (Deutsche Kautschuk-Gesellschaft Ost) in Merseburg, Germany.



TIRES REPRESENTED 21% of E-COMMERCE AUTOMOTIVE DOLLARS IN 2018

— TIRE BUSINESS



The value of online sales of tires grew 34 percent throughout 2018 and the category now accounts for 21 percent of total e-commerce automotive dollars spent, according to research from NPD Group Inc.

Consumers who bought tires online represented 7 percent of all consumers who made an online automotive-related purchase, NPD said, and these consumers also are active buyers of other automotive products as well, spending twice as much and shopping twice as often as other online automotive product consumers.

NPD cited information from its Checkout E-commerce Tracking service, which showed that tire category outpaced e-commerce growth for the total market of automotive products, which was up 28 percent for the year.

“Historically, selling tires online was challenging because consumers had to then find somewhere to have them installed,” Nathan Shipley, NPD’s executive director and automotive industry analyst, said. “Today, companies are finding creative ways to have tires reach consumers.”

“E-commerce partnerships with traditional brick-and-mortar retailers are solving this issue by making both the buying and installing process more convenient for consumers,” he said.

“One tire manufacturer recently unveiled a new store format to take the

“Historically, selling tires online was challenging because consumers had to then find somewhere to have them installed... Today, companies are finding creative ways to have tires reach consumers.”

friction out of the transaction, by allowing consumers to purchase tires and have them installed wherever the consumer wants, including at home or work.”

Mr. Shipley also noted that the tire market is a “healthy example” of how disruption is happening everywhere, and manufacturers and retailers are finding new ways to sell the same products.

NPD did not disclose its estimated dollar volume of e-commerce automotive aftermarket parts sales.

UNIROYAL TIGER MASCOT gets new name, new look

— TIRE BUSINESS



Michelin North America Inc. has redesigned the iconic Uniroyal Tire tiger mascot into “Royal,” a tiger cub wearing a crown and sitting inside a Uniroyal tire.

The symbol of a tiger has been associated with Uniroyal since the 1960s, when the brand introduced the Tiger Paw line of tires and a cartoon tiger starred in Uniroyal ads.

Today, the Tiger Paw line of tires still represents a large segment of Uniroyal’s portfolio. The new icon was created just ahead of the largest product launch in the brand’s history: the Tiger Paw Touring All-Season, available to consumers in June, the company said.

“The tiger is reliably strong and protective, as are Uniroyal tires,” Olivia Le Meur, Uniroyal brand director, said.

“For more than 50 years, the tiger has been associated with our tires. As we have our biggest product launch in history this year, we want a brand mascot that can help tell our story.”

The brand commissioned artist Jared Emerson to reimagine Royal the tiger. A series of images shows Royal as a tiger cub — a nod to the brand bringing value to families.

The tiger’s name, “Royal,” also is a link to the brand’s heritage. U.S. Royal was the predecessor to Uniroyal and has remained a Uniroyal trademark for decades, the company said. The new icon features a crown to emphasize the tiger’s symbolic name.

Royal will appear in various settings and poses as the brand launches more than 100 sizes of the Uniroyal Tiger Paw Touring A/S in 2019.

The mascot redesign comes less than a year after Michelin disclosed a partnership with a World Wildlife Fund program that aims to double the number of tigers in the wild by 2022.

On behalf of its Uniroyal brand — and its Tiger Paw line of tires — Michelin committed to donate at least \$150,000 annually to the WWF for the next five years and invited dealers and consumers to participate in the program as well.

SENSOR DEVELOPER TYRATA CLAIMS 'repeatable' results for tire tread-depth measuring

— TIRE BUSINESS

Tire sensor and data management company Tyrata Inc. is claiming it has achieved repeatable results in tracking "millimeter-scale" changes in tread depth in a variety of OEM passenger tires using its IntelliTread treadwear sensors.

IntelliTread sensors use wireless signals to track changes in tread depth. When commercially available, the sensors will signal when it's time to replace tires or report information about uneven and often dangerous tire wear conditions.

Tyrata said it achieved its repeatable test using Hankook- and Firestone-brand tires. Sensors mounted to several sections from each tire produced predictable and repeatable responses when the tread was removed, 1 mm at a time.

Durham-based Tyrata claims this technology breakthrough will open up the development of production-level packaging and on-vehicle integration and testing as the company moves forward toward commercializing the IntelliTread technology.

"With these recent results, Tyrata has demonstrated significant progress in moving from our early bench-top technology demonstrations towards real-world application of our sensors inside of a tire," Tyrata CEO Jesko von Windheim said.

"By demonstrating reproducible measurements in various consumer tires, we've achieved a major milestone in the development of our technology. Our next goal is long-term, in-tire testing."

IntelliTread sensors determine tread depth using proprietary sensor and electronic technology mounted inside the tire, Tyrata said.

When a voltage is applied to the sensor, an electrical signal passes through the tire; as the rubber wears down, the signal changes. Sensor electronics use these signal changes to determine the tire's tread depth, which can then be transmitted wirelessly for further analytics and/or displayed to the consumer.

Tyrata, in collaboration with Duke University's Pratt School of Engineering and Nicholas School of the Environment, said its sensor technology uses carbon nanotubes (tiny cylinders of carbon atoms one-billionth of a meter in diameter) that can track millimeter-scale changes in tread depth with 99-percent accuracy.

The company's goal is to develop the technology to the point where the sensors will be able to signal when it's time to replace tires or reveal uneven tire wear conditions.

Among the company's backers is Dealer Tire L.L.C., the Cleveland, Ohio-based tire distributor, which agreed in February 2018 to provide an undisclosed amount of funding to the startup.



Organizations interested in collaboration opportunities or for tire evaluations may contact Luka Lojk at Luka.Lojk@Tyrata.com or 704-593-8418.

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USC researchers develop SELF-HEALING RUBBER

by Miles Moore

— RUBBER & PLASTICS NEWS

Self-healing rubber could have a variety of applications including shoes, toys and even tires.

Self-healing shoes, toys and potentially even tires are within reach, thanks to 3D-printed polymers developed by researchers at the University of Southern California Viterbi School of Engineering.

Polymers that heal themselves through the application of heat can be manufactured using a 3D printing method that uses photopolymerization, according to Quiming Wang, assistant professor at USC-Viterbi, and colleagues Kunhao Yu, An Xin, Haixu Du and Ying Li.

The scientists published their research Feb. 1 in *NPG Asia Materials*, according to USC-Viterbi.

"Nature excels in both self-healing and 3D shaping," the abstract to the paper said. "For example, self-healable human organs feature functional geometries and microstructures.

"However, tailoring man-made self-healing materials into complex structures faces substantial challenges."

The paradigm for manufacturing self-healing elastomers, the abstract said, relies on a molecularly designed photoelastomer ink with both thiol and disulfide groups.

"The former facilitates a thiol-ene photopolymerization during the additive manufacturing process, and the latter enables a disulfide metathesis reaction during the self-healing process," it said. "We find that the competition between the thiol and disulfide groups governs the photocuring rate and self-healing efficiency of the photoelastomer."

The result is a 3D-printed material creating new functions for a wide range of purposes, from flexible electronics to sound control, according to USC-Viterbi. A 17.5-millimeter square can be printed out in just five



The paradigm for manufacturing self-healing elastomers, the abstract said, relies on a molecularly designed photoelastomer ink with both thiol and disulfide groups.

seconds, completing whole objects in about 20 minutes, it said.

The researchers demonstrated the material's usefulness on a range of products including shoe pads, soft robots, multiphase composites and electronic sensors, the college said.

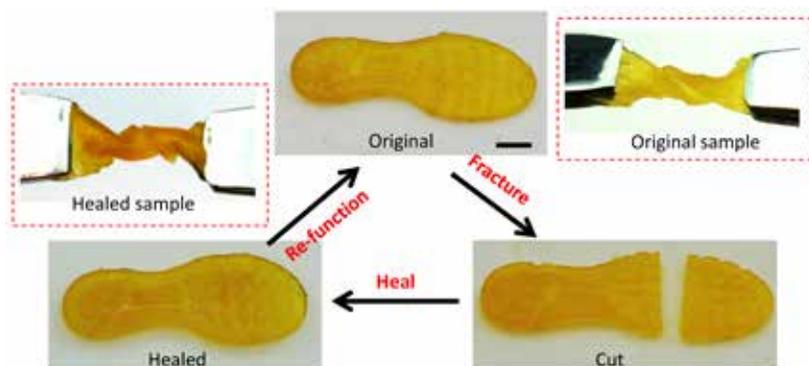
The self-healing elastomer works as a do-it-yourself technology, according to Wang.

"If you just put a broken shoe on a bench at room temperature, the rubber will heal itself in six to eight hours," he said. "If you apply heat, at maybe 60°C, that accelerates the healing process to about two hours."

Wang said he already has been approached by several shoe companies interested in the self-healing technology. He declined to name them.

While self-healing tires are a possibility, they will take more research to become a reality, according to Wang. Because tires are tough and complex, the photoelastomer would have to be stronger than it currently is, he said.

"How would that work?" Wang said. "We would have to include nanoparticles." No tire makers have contacted USC-Viterbi to date, he said.



Polymers that heal themselves through the application of heat can be manufactured using a 3D printing method that uses photopolymerization.

Videos, photos texted to service customers **BOOST REPAIR APPROVALS**

— TIRE BUSINESS



Julian Love, a service technician at Audi Denver, in Littleton, Colo., uses an iPod Touch to record a video that he will send a customer to show the condition of a brake pad

A picture is proving to be worth much more than a thousand words to growing numbers of dealership service departments that are using videos and photos to show, not tell, customers what ails their cars and trucks.

The use of such images in text messages, emails and other communications is generating big increases in service revenue and rates of repair approvals by customers, fixed ops managers say.

Service technicians at McDonald Automotive Group, which operates six dealerships in the Denver area, began using Quik Video in early 2016. The goal of adding the product was to make the repair process more transparent to customers, said Chris Coxall, the group's vice president of fixed operations.

"It's hard to debate a show-and-tell," Mr. Coxall said. "When you can show a customer a worn brake pad, it becomes a reality. The repair then becomes a no-brainer."

At the group's Audi Denver dealership in Littleton, Colo., the rate of customer-approved service recommendations, based on issues revealed during multipoint inspections, rose to nearly 47 percent in 2018. That compares with a closing rate of about 23 percent in 2016, before the company started using Quik Video.

"Our six service departments are turning in average increases of 21 percent in revenue generated," Mr. Coxall said. "Historically, we're told that a 7 to 8 percent annual increase is exceptional. Our parts sales have increased proportionately."

Saying yes

Bean Automotive Group, which operates four Miami dealerships, began using video/photo technology last spring, as part of a customer relationship management system supplied by CDK Global's ELEAD1ONE.

"Things that customers usually say 'no' to suddenly become things they say 'yes' to," said David Pemberton, the Bean group's corporate business development director. "We're building a better level of trust with customers, and that trust is building volume."

"It's crazy how the simplest things get approved, like cabin air filters, which is our biggest upsell," Mr. Pemberton said. "We don't even need to send a video — just a picture of a technician with a jet-black cabin filter gets almost an automatic 'yes' every time."

The Bean group now requires all service technicians to use video technology, Mr. Pemberton added.

Seeing is believing

Quik Video, created in 2013, now is used by about 340 U.S. dealerships, said Jack Gardner, the company's CEO. An average-sized dealership pays about \$1,000 a month for the service, he said.

"This technology empowers consumers to make [service] purchasing decisions with confidence," Mr. Gardner said. "A consumer who gets a video leaves the dealership with a completely different attitude, because they understand what they spent their money on."

Using videos, Mr. Gardner said, will boost a typical dealership's closing rate on recommended service by 25 to 30 percentage points.

ELEAD1ONE dealership customers that use videos typically double both revenue and acceptance rates for recommended service, company partner Mark Queen said. The service has more than 500 U.S. dealership customers.

The cost of the ELEAD1ONE technology is difficult to break out because it's built into a CRM package. "It's about \$3,000 a month for everything from soup to nuts, but if you simply want video in your technicians' hands, it'll cost about \$1,295 a month," Mr. Queen said.

"Customers believe what they see more than what they hear," he said. "Video is already used a lot on the sales side, so it makes sense to use it more in service."

Other suppliers that offer repair-video technology include myKaarma,



“It’s hard to debate a show-and-tell... When you can show a customer a worn brake pad, it becomes a reality. The repair then becomes a no-brainer.”

VinSolutions from Cox Automotive, Reynolds & Reynolds and Authntk Walkaround Videos.

Proceed with caution

Before a dealership invests in video and photo technology for its service department, it should determine whether it can do the same things more cheaply in house, said David Lewis, who runs a consulting firm that trains fixed ops employees.

A dealership can create a free YouTube channel as a platform for uploading videos and photos that technicians shoot on cell phones, Mr. Lewis said. Technicians then can text or email links to customers, he adds.

“I agree a thousand percent with the value of the technology,” Mr. Lewis said. “But I’d first invest in the processes and procedures. Make sure your technicians not only are capable of doing it, but will do it regularly.

“If you can develop a track record that shows it works, then you can decide if you want to invest in the technology and all the added data and analytics it provides,” he said.

Service customers appear to prefer, and typically respond faster to, videos and photos embedded in text messages, fixed ops directors say. That quick response leads to another benefit: Technicians can make more money because they’re more productive.

Technicians at McDonald dealerships typically had to work on 4.5

vehicles a day to generate eight hours of work, Mr. Coxall said. But with Quik Video, he adds, that number has shrunk to 2.5 vehicles.

“There’s not as much wasted time pulling cars in and out of the shop while [technicians] wait for upsell approvals,” Mr. Coxall notes. “When we launched Quik Video, we had around 25 technicians. Now we have 48 and are continuing to hire. It’s a good problem.”

Quik Video also has helped McDonald avoid potentially expensive litigation, Mr. Coxall said. In one case, a customer threatened to sue Audi Denver after a car crash, claiming the dealership had not warned her that her tires were worn out.

But an archived video showed a technician pointing out the worn tires. Records also showed that the customer watched the video seven times before she declined to buy new tires.

“It was a pretty short conversation after that,” Mr. Coxall said. “And I’ve got 20 or so more stories just like that.”

Mr. Coxall said the video technology his dealerships use is the next best thing to allowing customers to see recommended-service items firsthand in a service bay.

“Our internal data shows that our service departments could achieve an 80 percent acceptance rate for upsells if we could take customers to their cars and show them what needs to be fixed,” he said.

“Obviously that’s not feasible. But video helps us close that gap.”

CANADIAN WHOLESALE INDUSTRY undergoing its own consolidation

by Bruce Davis

— TIRE BUSINESS

Much like in the U.S. over the past year, the wholesale landscape in Canada has changed measurably of late, led by the late 2018 acquisition by Montreal-based Groupe Touchette Inc. of Atlas Tire Wholesale Inc.

Unlike in the U.S., however — where tire makers Bridgestone Americas, Goodyear and Michelin North America Inc. initiated the consolidation wave — the Canadian consolidation process has been driven almost entirely by independent distributors.

The move by Groupe Touchette extended the company's reach, particularly in Ontario, where Atlas Tire operates three distribution centers (D/Cs) and was in the process of opening a 182,000-sq.-ft. "inventory support center" in Toronto to help improve deliveries to its existing wholesale distribution network of six D/Cs across the country.

The combination of Groupe Touchette and Atlas Tire Wholesale will result in an enterprise with sales revenue in the range of \$420 million to \$500 million annually, according to Touchette, the self-described No. 1 tire distributor in Canada before the Atlas deal.

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Groupe Touchette will have a workforce of nearly 750 spread among 35 distribution centers in Canada, with a combined storage capacity of 1.7 million square feet. The move coincides with Touchette's business plan, aimed at accelerating growth in the Canadian distribution market.

Groupe Touchette also distributes tires in Ontario under the DT Tire and TireLink banners, from five distribution locations.

Earlier in the year, Pneus Unimax Ltd. — the Boucherville, Quebec-based wholesaler that administers the Point S program in Canada — struck a deal with Edmonton, Alberta-

based North Country Tire Distributors Ltd. (NCT) to bring the Point S retail program to dealers in Western Canada.



Groupe Touchette is led by Frédéric Bouthillier (left) and Nicolas Touchette.

Point-S said at the time it expected NCT — which operates wholesale distribution centers in Calgary and Edmonton, Alberta — to sign 10 to 15 customers a year for the next few years to the Point S program, starting with the one retail outlet that NCT operates. There are more than 200 Point-S-branded retail locations in Quebec, Ontario and the Atlantic Provinces.

Earlier, in 2017, Burlington, Ontario-based National Tire Distributors (NTD) expanded its coverage in Quebec with the acquisition of Pneus Supérieurs Inc., a business unit of retail/commercial dealership Pneus Belisle Inc., which operated three D/Cs — in Boucherville, Quebec City and Sherbrooke, Quebec.

NTD — an American Tire Distributors Inc. (ATD) subsidiary — at the time said adding the warehouses would shorten delivery times and increase product selection for customers in Quebec. Overall the deal expanded NTD's reach to 24 D/Cs comprising over 2.2 million square feet of warehousing capacity.

ATD expanded into Canada in 2012 via its acquisition of TriCan Tire Distributors of Edmonton, Alberta, which adopted the NTD identity in February 2014 for its wholesale activities in Canada, which at that point went to market under nine different brands — TriCan, RTD, WTD, Hercules, Kipling Tire Wholesale, Tireco Wholesale, Kirk's Tire Wholesale, Trail Tire Distributors and Extreme Wheel.



**Bruno Leclair,
President and CEO
of Distribution Stox**



NTD handles four dealer marketing programs: Tirecraft / Integra Tire (500-plus locations); Mecanipneu (75 locations); and Pneu Select (41 locations).

Another key change of recent vintage in the distribution industry was the formation of Distribution Stox, a strategic partnership in Quebec involving four leading wholesale distributors — Pneus Unimax Ltd., Distribution Pneus RT Ltd., Distributon DSP and Distribu-Pneus.

The partnership totals 18 distribution centers in Quebec comprising nearly 900,000 square feet of warehousing space and a fleet of more than 140 delivery vehicles.

The partners said the partnership targets mechanical workshops, tire

centers and car dealers primarily in Quebec, while at the same time exploring potential avenues outside of Quebec.

President and CEO of Distribution Stox is Bruno Leclair, who's also an executive with Unimax and an officer with Point S Canada.

In addition to managing the Point S retail program in Canada and participating in Distribution Stox, Unimax offers two other retail marketing programs, primarily for smaller dealerships in Quebec and Maritimes Provinces — Prestige Tire and Pneus Max Plus.

At year-end 2018, there were 210 Prestige Tire outlets in Quebec and Ontario that are predominantly auto repair facilities and 65 Pneus Max Plus outlets.

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Checking for Runout After Installing Any Rotor is Your Defense Against Comebacks

by Brendan Baker

— TIRE REVIEW

The fact is that not all rotors are created equal, and unless you're replacing the hub bearing as well, you may be creating a problem for your shop in the form of a comeback.

Many techs believe that installing new pads and rotors is the solution to brake noise and vibration and that installing new parts makes everything perfectly aligned so that no other steps are needed to bring the system back to service. Well, this is true and false.

In a perfect world, new brake parts such as rotors and pads should bring the vehicle back to factory condition, right? The fact is that not all rotors are created equal, and unless you're replacing the hub bearing as well, then you may be creating a problem for your shop in the form of a comeback. You'll be sending the customer down the road thinking that you did a great job and your quality work will keep their vehicle working in top shape for many miles to come. But, the bearing hub had some runout and so did the rotors. Did you measure the runout on the rotors after you installed them?

There are a few things a shop can do to keep the dreaded comeback from happening. And, you can start by making a policy that all of your techs must check for runout after installing any rotor, whether it has been machined or it is brand new.

With the cost of new rotors being more affordable for many customers these days, it's easy to think that installing new rotors is the simple solution to runout issues. But, we've seen tests that show some rotors have more runout than others when they are new. This issue is not a characteristic of any particular brand, but there are differences in manufacturing processes. In some cases, you can index the rotor on the bearing flange to the lowest point of runout, and it may fall within specifications. However, that may not be enough. A best practice is to check the runout in the flange when the rotor is removed. While it may add a few extra steps and time to the job, it will be well worth the peace of mind to know that the rotors and calipers are trued and ready for thousands of miles of trouble-free use.

Brake pads and rotors are critical to the ABS function as the system uses the hub and rotor to control traction and stability systems. If these components are not functioning to factory standards, some of the functions will no longer operate and a DTC code may be set. Shops should pay extra attention to any late-model vehicle when performing brake repairs to make sure all of the systems are set within factory tolerances.

New vehicle brake systems are more prone to stacked tolerances in the knuckle-to-bearing and hub-to-rotor assemblies. On older, high-mileage vehicles, rust and corrosion can lead to runout and disc thickness



Shops should pay extra attention to any late-model vehicle when performing brake repairs to make sure all of the systems are set within factory tolerances.

variation (DTV) as well. Aftermarket rotors that don't have the same mass or composite makeup as the OE rotors can include less of the dampening characteristics that minimize dynamic instabilities. If the cooling fin pattern is spread out too much, for example, heat may concentrate at specific points of the rotor. This can change the coefficient of friction when the rotor gets up to temperature and can lead to DTV and noise.

Shops that use an on-the-car lathe can reduce runout issues since the rotor is machined on the same operating plane as the hub. While it may not be the most productive to have to machine new rotors, it is a lot more cost-effective than a comeback. One thing to remember with any lathe: you need to have sharp bits and the right feed rate. Machining a rotor too fast will reduce the quality of the surface and potentially create chatter. A rule of thumb for machining is the bigger the piece, the slower the feed.

Being able to measure and machine rotors properly is an essential task for any shop that performs brake work. If your comebacks are starting to creep up on late-model vehicles, it may be time to invest in equipment and training to help turn that around before your customer decides to go to the shop down the street.

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