

WHERE THE RUBBER MEETS ITS MAKER

BEHIND THE SCENES AT GOODYEAR'S AKRON HEADQUARTERS

By Larry Edsall

Goodyear did more than launch the second generation of its Assurance TripleTred All-Season tire this summer: it packed a good year's worth of activity into a two-day press junket. We arrived by air or road not at the tire maker's hometown of Akron, Ohio, but at Cleveland, no longer the "mistake on the lake," but a thriving American city that mixes a surprising history—for many years the tallest American skyscraper outside of New York City—with such modern attractions as the Rock and Roll Hall of Fame and Museum, and Progressive Field, home of the Cleveland Indians, a baseball team doing well enough this season that its success is helping cushion the pain the city still feels from the desertion to Miami of LeBron James.

ON THE TOWN IN CLEVELAND

Our overnight accommodations were at the Hyatt Regency Cleveland at The Arcade, a hotel that has preserved an historic five-story mercantile facility built in 1890 in the Romanesque Revival style and patterned after the famed Galleria Vittorio Emanuele II in Milan, Italy. My room happened to be on the top floor and thus was guarded by a couple of the 44 cast-iron griffons arrayed around the base of the building's skylight, comprised of 1800 panes of

glass stretching 300 feet.

From the Hyatt, it was just a short walk to dinner... in a private suite at Progressive Field, where the Indians were playing the visiting Los Angeles Angels.

Upon reading my Facebook post of that fact, one skeptical pundit suggested I could not possibly find a way to incorporate the dinner location into my story about the new tire.

Fortunately, the Indians provided a way. In the first inning, outfielder Michael Brantley hustled home from second on a single to put the Indians into the lead. Then, in the ninth, he again scored from second to tie the game (which the Indians won later that same inning with a storybook finish when Jason Kipnis, just called up from Triple A, singled with the bases loaded).

So how did all of that work into a story about tires? Simple: "The new TripleTred All-Season gripped as well as Michael Brantley rounding third base and heading home with the game-tying run."

TRIPLETRED ON THE TEST TRACK

The next morning after breakfast, we heard brief technical and marketing presentations on the new tire, then boarded a bus for the drive to activities in Akron.

For my group, first up was another short bus ride, over to the Goodyear test track, where Toyota Camrys were waiting. The cars were identical except some wore Goodyear's new Assurance tire and others wore the current generation of another tire maker's all-season product.

As is typical with new tires, the latest generation leapfrogs the competition. While the Camrys may have been identical from the tires up, they drove as if they had very little in common, especially in wet and transitional road surfaces.

It's amazing what you can experience in a short drive and at relatively slow speeds, when it comes to learning about tires. Goodyear had set up a course that included a lane-change maneuver, a braking exercise, a foot-to-the-floor acceleration into the wet section of the track where we were to keep the throttle buried while making a sweeping turn that narrowed into a cone-lined alley, which led back to the dry—though increasingly wet with each lap—portion, where we maneuvered through a slalom and then a couple of tight turns, before stopping so someone else could give the course a try.

We did several runs with both brands of tires. All-season tires are designed to provide traction whether a road is dry, wet or icy. Obviously, all-season tires don't grip on dry roads as well as high-performance "summer" tires, or on winter roads as well as so-called snow tires. But for Americans who are not in the habit of changing tires with the seasons, they provide more than adequate all-weather grip.

Goodyear emphasized enhanced wet-surface grip in developing its second-generation Assurance TripleTred All-Season.

Goodyear introduced its TripleTred tire in 2004 and has sold some five million of them to people who had driven enough to need to replace the tires that came on their new vehicles. TripleTred features three tread zones—each optimized for a specific condition.

A new feature on the second-generation tire is the "evolving traction groove," a technology Goodyear has used in Europe and now introduces to the North American market. Tires lose grip as their tread blocks wear away, but the "evolving" groove reveals a secondary set of grooves midway through the tire's life.

"Think of it as having your cake and eating it, too," said Goodyear technical project leader Tim Richards.

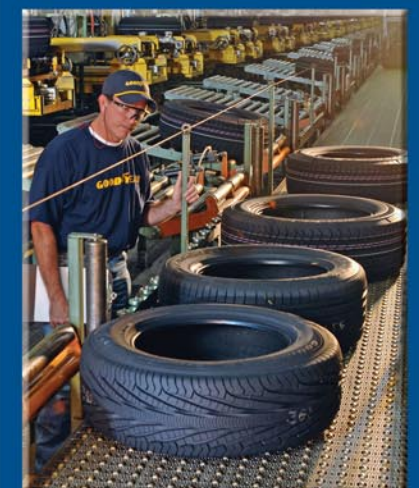
Because of the new groove architecture, Goodyear can warranty the new tire for either 70,000 or 80,000 miles, depending on the tire's specific speed rating.

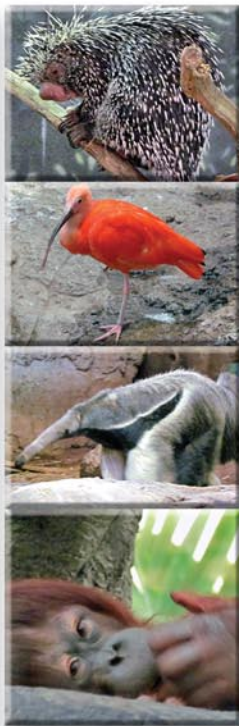
In addition to improving traction, Goodyear said it worked to reduce the rolling resistance of the second-gen tire to help reduce fuel consumption. It would take much longer drives to be able to gauge fuel usage, but our laps around the wet and dry test track demonstrated the Goodyear tire's enhanced grip on both surfaces, especially in the wet and in transitional areas where tires had carried water onto previously dry pavement.

AIR AND GROUND BLIMP TOUR

From the test track, we got back on the bus for a longer ride, but a ride worth the time. The destination was the Goodyear blimp hangar, and the purpose was to

KEEP RIGHT >>





ride on one of the company's blimps. We also got a guided tour of the company's photographic archive of blimp history, and a preview of the next generation of lighter-than-air Goodyear flying machines that go into production next year.

NASCAR TIRE TECHNOLOGY

Our flight complete, we went back to our original stop in Akron, but this time got off the bus and went into the building where Goodyear builds racing tires, including those that carry NASCAR stock cars.

What does it take to make a tire for a Sprint Cup race car?

Well there are natural and synthetic rubber, fillers such as carbon black, zinc oxide, reactive resins, oil, fatty acids, antioxidants, tack and traction resins, wax and accelerants. In all, 49 chemical components, as well as fabric and wire.

And a liner, toe guard, first and second plies, an apex, flipper and beads, first and second belts, overlay, sidewalls and, of course, the tread—which is only one-tenth of an inch thick.

One-tenth of one inch. That's not very thick. My computer mouse rides on a thicker slab of rubber than a NASCAR race car.

Goodyear is the exclusive tire supplier to NASCAR, which means that for each Sprint Cup event it has to produce between 1,200 and 1,400 tires, each tire optimally designed to wear through its tread while the car burns through a tank of fuel.

Teams are allowed to purchase five sets of tires for practice and qualifying, and may use nine to a dozen more during the race. And if you think replacing the tires on your minivan is expensive, consider that each Sprint Cup tire costs \$459.

Goodyear typically works six weeks ahead of the NASCAR schedule, and it doesn't try to get a jump-start on next year, because even a 1-degree change in the rules governing rear spoiler angle would necessitate engineering a completely new tire for each track.

Speaking of tracks, Goodyear is able to use the similarities among some tracks to divide them into seven categories. While each track gets a unique tire, there are similarities in the creation of the tires used, say, at Indianapolis, Pocono and—believe it or not—Bristol.

As you might expect, Daytona and Talladega comprise a group, as do Charlotte, Chicago, Darlington, Homestead, Las Vegas and Texas.

Only one track is a group unto itself. Know which one? It's Martinsville, that uniquely paperclip-shaped circuit.

NASCAR tires are built by hand, and the tire builder's name goes into each tire.

After a tire is built, it goes into a mold where it is baked under high pressure (vulcanized). The mold also impresses words and codes into the tire's sidewalls. After cooling, each tire is weighed, scanned, undergoes x-ray and laser testing.

GOODYEAR, GRIP AND GREEN

Speaking of codes, the sticker on a new tire includes an eight-digit barcode identifier, a spring rate number, tire diameter, tread width and bead diameter, a product code, tire classification, mold, construction and compound combination and a production sequence number.

Each tire also gets marked after inspection, and two colored dots are positioned to indicate optimal mounting match position for the tire and its wheel.

By the way, the Goodyear racing tire facility is a zero-landfill factory. Any scrap is sold for use by other companies.

After learning about racing tires—and new all-season tires, and the history and future of the Goodyear Blimps—we returned to Cleveland, where another special dinner was planned. To underscore the wet-weather capabilities of its new all-season tire, Goodyear made arrangements for dinner in the RainForest exhibit at the Cleveland Metroparks Zoo.

The zoo itself had closed for the night, so it was just our group along with more than 6,000 plants and 600 animals from the rain forests of Asia, Africa and the Americas. Those animals included orangutan, ocelot, capybara, snakes, giant anteaters, and more, including a Gharial crocodile.

None of those animals was on our menu, and—fortunately—we were not on theirs, either. ■



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