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## Rounding into shape

Strategic outsourcing helps  
tire manufacturer deliver efficiency **39**

# Rounding into shape

Parts and repair outsourcing is one strategy that helped Toyo Tire build a big success story in a small town.

By Bob Vavra

Content Manager, Plant Engineering

A tire is a part unto itself. In reality, it's four parts on a car, which is itself a carefully orchestrated collection of valves and rods, spark plugs and pipes. We don't see a tire as a collection of parts.

Jim Hawk knows better.

The president of Toyo Tire USA in White, Ga., Hawk sees it all—the rubber and polyester and chemicals; the machines that mold and form those basic parts into something useful and vital. It's also the sum of the people and the machines that keep Toyo running at a high volume and high productivity in the last place in America you might look for a tire plant.

There are more than a half million tires sitting at the back of Toyo Tires' 3-million sq. ft. manufacturing facility, and in 90 days, they'll be replaced by another half-million tires. Hawk has all of those tires to keep track of, as well as all the things that go into making tires efficiently each day.

"One of the things I keep driving at with our people is OEE (overall equipment effectiveness)," said Hawk. "We've got a lot of built-in (time) losses. We're going to do changeovers. We're going to do PM (preventive maintenance). We're going to do equipment upgrades."

In the race to drive efficiency and effectiveness out of a process where more than half the costs are material and equipment costs, Hawk looked at every option for ways to manage costs without slowing down the process. One was outsourcing his parts department.

## In the center

White, Ga., is easy to miss, even when you're driving right through the center of



Toyo Tire USA president Jim Hawk has led the development of a tire manufacturing hub, using an efficient operation that uses both robotics and people to deliver quality. All images courtesy: CFE Media



**Parts management at Toyo Tire was outsourced to a third-party vendor to both create greater efficiencies and to free skilled staff within Toyo to concentrate on value-added work.**

the gateway to the burgeoning Mid-South automobile manufacturing plants in Georgia, Tennessee, and the Carolinas. And there's the Port of Savannah ("our secret weapon," Hawk said), which provides a sea lane for parts and materials.

There are things that are less obvious, like Georgia's Quick Start training program that helps put engineers into Toyo's plants and helps drive the spectacular growth the facility has enjoyed.

In 2004, today's Toyo plant was a farm field. Three large expansions later, Toyo now occupies a massive manufacturing, distribution, and employment footprint. It has accomplished this with an increasingly autonomous management style from the home office in Osaka, Japan.

town. Its listed population is less than 700, and you can go through the town on Highway 411 in under a minute, even doing the posted 40 mph speed limit. You have to look a little closer to see White's value for Toyo Tire.

There's a railroad line running through the front yard. There's Interstate 75 just a few miles from the front door, and I-75 is

"It's a very internationally-minded company," Hawk said. "From the beginning, they did not intend to run it as a Japanese plant. In the beginning, we were just transferring products and then we built the first phase of operation. It was about training and getting machines running. Since then, it's gotten more difficult. We've installed our own machines, and we develop new

**The raw rubber is fed from spools into the first stage of a process that will produce a finished tire, which are stored for distribution in part of Toyo's 3-million sq. ft. plant in White, Ga.**



specifications for the new machines. We test rigorously.”

### At the core

Toyo is a tire manufacturer, so its core competencies are the art and science of tire-making. It's a little of both. The tread design is the art—finding the right combination of patterns that provide both performance and aesthetics. However vital to your vehicle's operation—just try driving tomorrow without one—a tire is a bit of a utility product. The tread is what's fun and attractive. Where the rubber meets the road for a tire is where the rubber meets the road. That part has to work.

So it is no surprise Toyo values its engineering and maintenance staff. Part of that value is related to their being able to perform valuable tasks each day. Searching for parts to repair doesn't add value.

“The way we talk about it is that there are core and non-core functions,” said Jeff Owens, CEO of Peoria, Ill.-based ATS, which has been Toyo's parts management partner since 2011. “If your customer is going to buy the product and if the work your people do is going to influence that buying decision, then that's a core process. If it's back behind the scenes, and there's a way to do it more efficiently, then it's a candidate to be looked at.”

“Every manufacturing company has to decide what's a core function,” Owens added. “What I find, as companies get older, there are more things that get to be non-core. We're great at non-core things.”

That philosophy was exactly what Hawk wanted to align with. “You want to know how this process started? I saw their ad in (*Plant Engineering*) talking about their work with Cooper Tire,” Hawk said.

ATS now manages more than 12,000 SKU. Over 4 years, the relationship has evolved as ATS has learned Toyo's business from the inside and been able to provide insight into other ways to streamline the operation. “Our first contract was our repairable parts management (RPM) contract,” said Owens. “As we grew the RPM program we noticed challenges in the storeroom with accuracy and staffing.

“Local and onsite repairs were another issue that rose to the surface,” Owens added. “ATS used data to show the value of a dedicated team that would focus on onsite repairs. The data pointed towards sub-optimal service quality from local suppliers. There was also significant time being spent by the maintenance team doing repairs; time that was needed to focus on downtime and PM activities.”

ATS now has 10 staff on-site at Toyo, integrated into the daily operations of the facility. “We have to be adaptable. We have to fit into that family,” Owens said. “When that doesn't exist, it's a non-productive relationship, and it doesn't work.”

Hawk sees that outsourcing the management, procurement, and repair functions could deliver real value. “It lets us do what we are really good at,” Hawk said. “It goes way beyond stocking parts. It's

“(Outsourcing parts management) lets us do what we are really good at. It goes way beyond stocking parts. It's about the accuracy of the inventory. We put intelligence into the process.”

**Jim Hawk, Toyo Tire USA**



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### A changing industry

The smell of hot rubber and the surge of heat come at you as you first step into the manufacturing area at Toyo Tire’s facility. Making tires is a hot process with heavy objects, which is why much of the tire manufacturing at Toyo is automated. The intensity of the process is unforgettable.

Tire-making has been in Jim Hawk’s blood his whole life. He was born in Akron, Ohio, long known as America’s tire capital, until that business went away from Akron and took jobs with it. That includes his father’s job; he worked for General Tire for 3 months shy of 40 years before he was let go.

The tire business in America today is very different than in those days of Akron in the 1960s and 1970s. For one thing, automobile manufacturing is spread more widely across the country, and tire manufacturers have sprouted throughout the Mid-South to take advantage of the growth in that market.

Rubber & Plastics News reported online in 2014 that \$2.75 billion was invested in tire manufacturing in the Midwest and South, including Toyo’s expansion in White. South Carolina has been a prime location to locate tire manufacturing. A key reason is to locate closer to the end user—in this case, both the new car and aftermarket customers.

Tires can be made anywhere, so the complicated calculations of labor costs versus transportation costs, as well as balancing logistics and parts management, all figure into where to locate a plant. The formula is only one part of developing successful manufacturing. The rest is in running the most efficient operation possible—utilizing people and machines to take full advantage of all of the inherent advantages a place like White offers.

Hawk has been in the business a long time and says he still has more to do. “It’s been a track meet for the last 10 years,” said Hawk. “We’ve made major, major investments, but I’m not going to retire until we can implement a gain-sharing program for employees. We want to create pay bonuses based on savings.” **PE**

**ATS employees are embedded in the Toyo Tire facility, managing the parts, storeroom management and repair processes for Toyo.**

