

Michelin's Lexington, South Carolina, Earthmover Tire Plant Continues Expansion to Supply the Needs of Growing Global Market

When many people hear the name Michelin, they often think of premium tires designed for a variety of applications on large trucks, cars, or SUV's. But Michelin also boasts one of the widest product lines for earthmover, agricultural, and construction equipment on the market, offering 110 different sizes and 45 different tread designs. The demand for tires within this segment is growing at a healthy rate. Large tires needed for mining applications have been growing at a rate of approximately 9 percent per year and servicing this segment required additional capacity.

In 1997, Michelin officially opened its earthmover tire manufacturing facility in Lexington, South Carolina. The facility, which went into full production in 1998, encompasses approximately half a million square feet and employs more than 250 employees to build some of the largest tires on the planet. Whereas most of today's car tires have a rim diameter of 15 to 17 inches, or a bit larger if you want to "plus size" your way into style, Michelin's Lexington facility produces mammoth tires between 45 an 63 inches in diameter, big enough to dwarf your car if you park close to them.

In fact, the largest production tire in the world, the Michelin 59/80 R 63 XDR C4 E4R TL, is manufactured in Lexington. The tire is 13.2 feet in diameter, 4.9 feet in width, and weighs a whopping 5.8 tons. Now that's a BIG radial tire! The tire delivered performance for surface mine operations throughout North and South America, and demand soared.

In December 2005, Michelin announced a major expansion of its Lexington facility, investing \$85 million over a five year period to expand the facility and increase production of its largest tires. The investment is aimed at increasing the plant's capacity by nearly 50 percent and adding an additional 70 jobs by 2010.

This expansion, now partially operational, serves the continued demand for 57- to 63-inch radial earthmover tires for surface mining equipment, in particular, ultra-class haul trucks with a carrying capacity of 360 to 400 tons. The first phase of this expansion began producing tires for commercial sale on January 31, 2007, two weeks ahead of schedule. Additional presses are currently being installed, one-by-one each several months, until the completion of the project.

The tire building equipment and support machines to keep the new presses fed with tires are being simultaneously installed with the presses. The testing phase for each press takes roughly one week to test the operation of the press—the fluids, the temperatures and the performance characteristics. The test process is able to move quickly because the plant has already produced these tires in similar presses and the testing procedure to ensure the highest quality tire has already been established for the press and the tire. Personnel have already been hired and extensively trained to operate the new machinery, eliminating the downtime between the presses being installed and becoming operational.



The area above outlined in yellow is part of the \$100 million investment Michelin is making at its Earthmover facility in Lexington, SC. The area will contain new curing presses for the company's large mining tires. The company offers 110 different sizes and 45 different tread designs.



Surface mining equipment uses from 57 to 63 inch radial tires. Ultra-class haul trucks have a carrying capacity of 360-400 tons.

Of course, the gigantic tire presses are not off-the-shelf items. They are specifically engineered to meet Michelin's exacting standards and combine the latest advances in tire manufacturing technology with the need to "go large". Just like the tires they produce, these presses are massive in size and complexity and can inspire awe to most any observer, while in operation. Getting to actually see them, for the vast majority of people, is a very rare experience. They work exceptionally well, but due to the proprietary technology they display, photographs of Michelin's presses, while in operation, is strictly forbidden.

Getting these mammoth machines to Michelin's Lexington facility presents a unique challenge. "Oversized load" is an understatement and "handle with care" resonates with a renewed meaning. To handle the complex logistics of transporting the large presses, Michelin called on **J.E. Oswalt & Sons** of Batesburg, SC, a member of the International Association of Structural Movers (IASM), to move the presses from the Port of Charleston, SC to Lexington. The moves are not easy, requiring barge transport from the Port of Charleston to Lake Marion, a distance of approximately 90 miles. The cargo is then

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