

# Michelin at the 2012 Intermat Trade Show

**Profitability, Safety and the Environment  
The right tire changes everything**

**Press Kit  
January 2012**

**Media Contact: + 33 1 45 66 22 22**



# Contents

## Summary

### **Michelin at the 2012 Intermat Trade Show**

#### **The right tire changes everything**

Profitability, safety and the environment: the hallmarks of a comprehensive new tire lineup

## **World premiers**

### **Tires for road cranes**

The MICHELIN X-CRANE+

### **Tires for articulated dump trucks**

The MICHELIN XADN+

### **Tires for rigid frame dump trucks**

The MICHELIN X-TRACTION

### **Tires for loaders**

The MICHELIN XHA2

### **Tires for Compact Line equipment**

The MICHELIN BibSteel

### **Tires for worksite approach roads**

The MICHELIN X<sup>®</sup> Works<sup>™</sup>

## **Services**

Leveraging Michelin's expertise to support customers

## **Appendices**

- Michelin Group: Milestones
- Michelin Key Figures

## **Michelin at the 2012 Intermat Trade Show The right tire changes everything**

### **Profitability, safety and the environment: the hallmarks of a comprehensive new tire lineup**

At the Intermat trade show in spring 2012, Michelin is unveiling no fewer than three important new products, either all-new tires or new sizes in existing tire ranges. However, at Michelin, innovation involves more than just tires. It also extends to unique service offerings that will also be presented.

At this year's show, Michelin will premier its new tire offerings for road cranes (the MICHELIN X-CRANE+), articulated dump trucks (the MICHELIN XADN+) and compact line equipment (the MICHELIN BibSteel).

- 1- The MICHELIN X-CRANE+ provides users with three important advantages: It increases profitability thanks to its superior longevity, enhances operator comfort thus helping to improve safety, and can be more easily mounted on the wheel thereby maximizing crane uptime.
- 2- The MICHELIN XADN+ helps to make operations more profitable by delivering greater longevity and more damage-resistant sidewalls.
- 3- The MICHELIN BibSteel range comprises two tires that offer enhanced damage-resistance, robustness and greater longevity.

Among the new service offerings to be presented on the stand will be the Michelin Earthmover Professionals program, which recognizes dealers that provide equipment operators with expert skills and high-quality service.

The Michelin stand also features three other tire ranges: the MICHELIN X-TRACTION for rigid frame dump trucks, the MICHELIN XHA2 for loaders and the MICHELIN X<sup>®</sup> Works<sup>™</sup> for worksite approach roads.

For all of these tire lineups, however specific they may be, Michelin is pursuing a common strategy, which is to satisfy the priorities of construction and infrastructure companies. To this end, the Group is deploying its global strategy, which consists of providing the most appropriate solution to users across all businesses by supplying them with the right tires.

But just what are the "right tires"? Quite simply, they are those that are most appropriate for a specific type of use and also deliver the best performance balance. That's why each tire has been developed to provide superior performance in three areas. The goal is to:

- Make companies more productive with MICHELIN tires that are robust, long-lasting and easy to mount.
- Improve safety not only on worksites and in quarries – by ensuring that operations go smoothly – but also on the road.
- More effectively address environmental concerns, in particular by reducing the weight of tires and thus the amount of materials used in their manufacture.

## **The MICHELIN X-CRANE+ Productivity, safety and versatility**

The previous-generation crane tire was already the market standard-setter. Now the all-new MICHELIN X CRANE+ that is being premiered worldwide at the 2012 Intermat trade show goes even further. It will be brought to market in summer 2012 in the segment's best-selling size: 445/95R25.

A radial tire for road cranes, the MICHELIN X-CRANE+ has received a speed rating of F, meaning that each tire can carry a payload of 6,700 kg at speeds of up to 80 km/h. Today's cranes are high-tech machines, capable of lifting loads of 35 to 1,200 tonnes, with anywhere from two to twelve axles.

The tire has also proven itself to be highly versatile as it can be driven as easily on roads and highways as on the harsh terrain of construction sites. The tire delivers superior performance in three key areas:

1. First is its increased longevity. The MICHELIN X-CRANE+ lasts 15% longer than its predecessor thanks to a new tread rubber compound, thereby helping to improve the customer's bottom line.
2. Second, the MICHELIN X CRANE+ was designed to wear evenly. Tires fitted on highway cranes are subject to severe conditions of use that can result in uneven wear. By slowing this phenomenon, the new tire enhances comfort for crane drivers and users, which in turn improves safety.
3. Lastly, Michelin teams have made the tire easier to mount, meaning that downtime due to the need for tire changes is reduced. That's another source of profit for companies that use these tires.

## **The MICHELIN XADN+**

The all-new MICHELIN XADN+ will be brought to market in summer 2012 in the segment's best-selling size: 29.5R25. Designed for articulated dump trucks, the tire will be premiered worldwide at the 2012 Intermat trade show.

Used for groundwork, in motorway, railway, dam and other infrastructure construction projects, in quarries and sandpits, and for surface mines, articulated dump trucks are chosen for their great versatility and adaptability to all types of terrain.

One characteristic of moveable worksites is that working conditions vary from one location to another and sometimes even on the same site. Because they can maneuver on soft dirt and uneven surfaces, articulated dump trucks have an advantage over their rigid frame counterparts.

The all-new MICHELIN XADN+ tire range will replace the current XADN lineup, launched in 1996.

The MICHELIN XADN+ makes earthmover operations more profitable. It helps to maximize equipment uptime thanks to:

- More damage-resistant sidewalls.
- A more durable tread with optimized bracing plies and casings.
- Greater longevity, with tire life increased by 8% to 15% through the use of a new rubber compound in the tread.

At the same time, the MICHELIN XADN+ illustrates Michelin's commitment to preserving natural resources. The tire was developed with advanced design techniques that reduced the amount of raw materials used by 14 kilograms compared with its predecessor. And fewer raw materials used in the manufacturing process means fewer tires to be recycled as well.

### **The MICHELIN X-TRACTION** **Better grip for greater productivity**

The MICHELIN X-TRACTION is designed specifically for rigid frame dump trucks. On display at the 2012 Intermat trade show, the range has been expanded with a new size tire: 24.00R35.

The MICHELIN X-TRACTION lineup was introduced in 2004 in size 27.00R49 for large mining trucks. Today, with 35 and 33-inch sizes, Michelin has brought to market a new generation of tires specially designed for smaller trucks that operate on public works sites or in quarries. That's because companies in this sector increasingly prefer rigid frame to articulated dump trucks.

To overcome the constraints facing these trucks, which operate at higher speeds than mining vehicles, Michelin has integrated two new interrelated technologies into the latest generation of MICHELIN X-TRACTION tires: the new Cooling System shoulder design and the C2 Technology casing architecture. Together, these two solutions reduce heat build-up, thereby enabling trucks to operate continuously at higher speeds.

The MICHELIN X-TRACTION follows in the footsteps of other innovations in Michelin's earthmover tire lineups. Like the MICHELIN XHA2 for loaders, the MICHELIN X-TRACTION is also lighter\*. As a result, it helps to reduce fuel consumption by up to 5%\* and consequently lowers CO<sub>2</sub> emissions\*.

Moreover, the new MICHELIN X-TRACTION features a tread that is 7 to 9 millimeters deeper, which extends tire life by as much as 15% and improves resistance to cuts and scrapes\*.

The new MICHELIN X-TRACTION also reduces tire costs because it is easier to retread, owing to the robust tread that helps to protect the casing.

\*Compared with the MICHELIN XDT

## **The MICHELIN XHA2 Setting the standard for productivity while also delivering a comfortable ride**

The Michelin XHA2 has been designed to accomplish three goals – reduce hourly costs, ensure that work continues smoothly and safely, and improve operator working conditions. Designed for loaders operating in quarries and cement plants and on infrastructure projects and other worksites, the MICHELIN XH12 is the best-selling earthmover tire in Europe.

Robustness is one of the fundamental qualities of the MICHELIN XHA2, helping to make the tire a powerful performance driver on any worksite. To gauge its contribution, it's important to bear in mind that the MICHELIN XHA2 is fitted on loaders. These vehicles often operate on rough terrain where they must move heavy loads as quickly as possible. If a tire fails to perform during this critical phase of operations, the worksite comes to a halt, which is why the MICHELIN XHA2 was designed as an unbreakable link in the entire chain of quarry, construction and industrial worksite operations. To develop the tire, Michelin leveraged three technologies:

- Incorporating additional rubber into the tread to make the tire even more damage-resistant.
- Strengthening the sidewalls with a special protective rib and anti-scrape shields.
- Developing crack rotation rubber compounds that help to prevent flats.

With the MICHELIN XHA2, robustness and longevity go hand in hand. The tire lasts up to 9% longer than its predecessor, the MICHELIN XHA, which was previously the benchmark tire on major worksites around the world, including quarries, cement plants, construction sites and infrastructure projects. Thanks to its exceptional longevity, the MICHELIN XHA2 helps to reduce operating costs, thereby improving the company's bottom line. This means that a tire purchase should be seen as a good investment.

In addition to its longevity, the MICHELIN XHA2 provides another advantage: its superior traction helps get the job done faster. The tread improves traction and makes the tire self-cleaning (expelling earth caught between tread blocks) while reducing temporary losses of grip. This optimized traction reduces rolling resistance and therefore fuel consumption. The Michelin XHA2's patented tread design drastically reduces vibrations that can be felt by operators and cause damage to mechanical components. What's more, the tire reduces the oscillations caused by heavy loads and frequent changes of direction thanks to its bigger contact patch.

The Michelin XHA2 also features a new casing that further enhances its value. This robust underlying structure makes the tire easier to retread, thereby generating additional cost-savings for companies. With its improved damage-resistance, superior traction that reduces fuel consumption, greater longevity and enhanced retreadability, the MICHELIN XHA2 increases a company's productivity. At the same time, its robustness makes worksite operations safer, while providing loader operators with more comfortable working conditions.

### The MICHELIN BibSteel family, the all-new range for Compact Line equipment

Michelin also produces tires for smaller Compact Line vehicles.

The new BibSteel range is intended for the compact equipment segment and in particular for skid steer loaders. This is the first time the tire has been shown at a European trade show.

In 2011, the Compact Line range has been extended with two new tires:

- The MICHELIN BibSteel All-Terrain
- The MICHELIN BibSteel Hard-Surface

#### THE MICHELIN BIBSTEEL ALL-TERRAIN

Michelin is the only tire company to offer a radial traction tire for very compact equipment.

The MICHELIN BibSteel All-Terrain delivers three benefits:

- 1- **First benefit:** The tire reduces vehicle downtime due to tread and/or sidewall punctures.  
**Advantage:** Enhanced resistance to tread punctures and sidewall impact damage.  
**Technical characteristics:** The tire comprises three metal layers, 2.5-millimeter reinforced sidewalls (compared with the MICHELIN Stabil'X XZSL) and a curb rib.
- 2- **Second benefit:** Exceptional traction that enables vehicles to get out of difficult situations.  
**Advantage:** The open tread design is self-cleaning.  
**Technical characteristic:** 12% more traction than the competing tire.
- 3- **Third benefit:** Productivity, driver comfort and return on investment.  
**Advantage:** The rubber compound helps to improve abrasion resistance.  
**Technical characteristics:** 85% longer lasting thanks to radial technology and the recognized longevity of MICHELIN tires.

#### THE MICHELIN BIBSTEEL HARD-SURFACE

This new tire improves on its very high-performance predecessor – the MICHELIN Stabil'X XZSL – while offering more resistant sidewalls.

Three key benefits have been developed:

- 1- **First benefit:** Highest return on investment in the market:  
**Advantage:** Much longer lasting.

**Technical characteristic:** A MICHELIN rubber compound that deliver real benefits.

- 2- **Second benefit:** The tire reduces vehicle downtime due to tread and/or sidewall punctures.

**Advantage:** Enhanced resistance to tread punctures and sidewall impact damage.

**Technical characteristics:** The tire comprises three metal layers, 2.5-millimeter reinforced sidewalls (compared with the MICHELIN Stabil'X XZSL) and a curb rib.

- 3- **Third benefit:** Productivity, driver comfort and return on investment.

**Advantage:** Abrasion-resistant rubber compound.

**Technical characteristics:** Radial technology and the recognized longevity of MICHELIN tires.

### **The MICHELIN X<sup>®</sup> Works<sup>™</sup>: The all-terrain tire that does it all**

Intended for use on streets and roads as well as in and around worksites and quarries, the new MICHELIN X<sup>®</sup> Works<sup>™</sup> delivers robustness and endurance – robustness for worksites and endurance for the road.

When tires are used both on and off roads, the risk of accidental damage increases considerably. Tires that are used on worksites and in quarries as well as on streets and roads are subject to the most extreme conditions of use. Dangers that increase the risks of cuts and scrapes are everywhere in the form of ruts, stones, scrap metal and rubble.

The new range of MICHELIN X<sup>®</sup> Works<sup>™</sup> tires were purpose-designed to limit the risk of vehicle downtime. The casing, rubber, sidewalls and tread have all been designed for additional strength and solidity. MICHELIN has thus deployed its cutting-edge technology to further improve robustness and reliability.

The MICHELIN X<sup>®</sup> Works<sup>™</sup> is available in sizes 13R22.5 and 315/80R22.5.

An incident involving tires can have major economic repercussions for customers. Recuperating profits lost when a vehicle is out of commission may take a company as long as 15 to 20 working days<sup>1</sup>. The MICHELIN X<sup>®</sup> Works<sup>™</sup> thus addresses an issue that is very important for customers in the worksite segment.

At the same time, the new MICHELIN X<sup>®</sup> Works<sup>™</sup> embodies the performance balance strategy developed by the Group, which consists of simultaneously improving all areas of performance, regardless of the tire type or range. For truck tires, the benefits fall into three categories: enhanced safety, greater cost-effectiveness and increased environmental protection.

Designed for use on roads as well as in and around worksites, the MICHELIN X<sup>®</sup> Works<sup>™</sup> must deliver heightened resistance to cuts and scrapes and superior load capacity while also being cost-effective on the road.

#### **Safer**

To meet the need for tires that are safe and reliable, the MICHELIN X<sup>®</sup> Works<sup>™</sup> features a new tread that reduces the risk of pebbles lodging in grooves and ensures that water is effectively evacuated when driving on wet roads. Its V-shaped grooves that gradually widen make driving easier on non-asphalt surfaces.

In addition, the casing of the MICHELIN X<sup>®</sup> Works<sup>™</sup> has been designed to carry weights of 8 tonnes per axle in single mount and 13.4 tonnes per axle in dual mount at a speed of 110 kilometers an hour.

---

<sup>1</sup>Source: Lead users

### **More cost-effective: robustness and maximum longevity**

Because of its robustness, the MICHELIN X<sup>®</sup> Works<sup>™</sup> tire provides enhanced resistance to cuts and scrapes. Its architecture has been optimized for challenging conditions of use. The tire features a new compact central tread band that is more resistant to tears as well as sidewalls that are thick at the shoulders to withstand lateral damage.

In addition to being damage resistant, the MICHELIN X<sup>®</sup> Works<sup>™</sup> was also designed to be long lasting. Its optimized contact patch distributes wear more evenly, which means greater total mileage. At the same time, its compact central tread band increases longevity in the section of the tire that is most often solicited. Lastly, the new tire's casing contains high-density metal cables that provide maximal endurance.

### **An improved environmental footprint**

A MICHELIN X<sup>®</sup> Works<sup>™</sup> Remix tire delivers the same performance as a MICHELIN X<sup>®</sup> Works<sup>™</sup> while reducing raw material use by 50 kilograms compared with the amount of material needed to produce two new tires.

And like all MICHELIN truck tires, the MICHELIN X<sup>®</sup> Works<sup>™</sup> can be regrooved. This extends the tire's life during a phase when it consumes less fuel while also pushing back the day when the tire will finally go to the scrap heap.

### **High-performance tires and peace of mind with the MICHELIN accidental damage warranty**

For greater peace of mind, Michelin customers in Europe can take out a six-month accidental damage warranty when they purchase a MICHELIN X<sup>®</sup> Works<sup>™</sup> tire. The offer is valid for tires purchased between September 1, 2011 and May 31, 2012.

## Leveraging Michelin's expertise to support customers

To capitalize on its decades of tire expertise, Michelin is deploying tools to help make work easier for its customers.

### Launch of the MICHELIN Earthmover Professionals program

Michelin has introduced the MICHELIN Earthmover Professionals program in Western Europe. Its purpose is to recognize earthmover tire dealers capable of providing **consistent, high-quality, professional** service on customer sites while complying with Michelin's safety and environmental standards.

The program is backed by audits conducted by independent organizations in real-life earthmover tire mounting and dismounting situations.

The audits focus on:

- Professionalism
- Appropriate equipment for onsite servicing
- Safety / Compliance with environmental regulations
- Close-to-the-customer service

### Launch of a new Web site

Beginning in spring 2012, customers will find the answer to many of their questions at [michelinearthmover.com](http://michelinearthmover.com). The site includes a Tire Selector to advise them on the tire best suited to their needs and a Dealer Locator to help them find the nearest tire supplier.

### Launch of the new Use and Maintenance Guide

Earthmover tire users share the same concerns, namely to:

- Lower their operating costs.
- Maintain or improve the safety of people and equipment on worksites.

Tires can make a real difference in meeting these concerns.

The Guide serves as a reference document that addresses all of these questions. Distributed in four languages and also available online, it will be presented at the 2012 Intermat trade show.

## Michelin Group: Milestones

For more than a century, Michelin has dedicated its expertise and innovation to enhancing the mobility of people and goods around the world.

- 1889:** Founding of **Michelin et Cie**.
- 1891:** Michelin files its first patents for removable and repairable tires.
- 1895:** Michelin introduces Éclair, the first car to be fitted with pneumatic tires.
- 1898:** “Birth” of **Bibendum**, the Michelin Man.
- 1900:** First **MICHELIN guide** published.
- 1905:** Introduction of the **Michelin Sole** tread with hobnails to improve tire grip and durability.
- 1910:** First 1/200,000 scale Michelin **road map** published.
- 1913:** Michelin invents the **removable steel wheel**.
- 1923:** First **low-pressure car tire** (2.5 bar).
- 1926:** Michelin creates its first **Green Guide for tourists**.
- 1930:** Michelin files a patent for the **integrated tube tire**.
- 1938:** Michelin launches **Metalic, the first truck tire with a steel casing**.
- 1946:** Michelin invents the **radial tire**.
- 1959:** Michelin introduces the first radial tire for earthmovers.
- 1979:** The Michelin radial tire wins the Formula 1 championship.
- 1981:** The **MICHELIN X Air** is the first radial aircraft tire.
- 1989:** Michelin launches the first online travel itinerary service, on France’s Minitel teletext network.
- 1992:** Launch of the fuel-efficient **MICHELIN ENERGY™** tire.
- 1993:** Michelin invents the new tire manufacturing process Nov. 28
- 1995:** The US space shuttle lands on Michelin tires.
- 1996:** Michelin invents the vertically anchored PAX System tire.
- 1998:** The first **Michelin Challenge Bibendum**, the world’s leading clean vehicle event.
- 1998:** The Michelin Man’s **100th birthday**.
- 2000:** Michelin Man voted best logo of all time by an international jury.
- 2001:** Michelin brings to market the world’s largest earthmover tire.
- 2003:** Launch of Michelin brand automotive accessories.
- 2004:** New corporate signature introduced: “**Michelin, a better way forward.**”
- 2004:** Launch of the MICHELIN XeoBib, the first agriculture tire that operates at constant low pressure.
- 2005:** Michelin provides tires for the new Airbus A-380 aircraft - Launch of the MICHELIN Power Race, the first dual-compound racing tire approved for road use.
- 2006:** Michelin revolutionizes truck tires with MICHELIN Durable Technologies.
- 2007:** Launch of the new **MICHELIN ENERGY™ Saver** tire, which reduces fuel consumption by nearly 0.2 liters per 100 kilometers, thereby lowering carbon emissions by 4 grams per kilometer.
- 2008:** Introduction of the new MICHELIN X ENERGY™ SAVERGREEN truck tire.
- 2009:** 100th edition of the MICHELIN guide France.
- 2010:** Market launch of the MICHELIN Pilot Sport 3 and MICHELIN Pilot Super Sport tires.
- 2012:** The **MICHELIN Primacy 3** is launched in the European replacement market.

## Michelin Key Figures

<b>Founded:</b>	1889
<b>Production base:</b>	70 plants in 18 countries
<b>Number of employees:</b>	111,000 worldwide
<b>Technology Center:</b>	More than 6,000 researchers on three continents: North America, Europe and Asia
<b>Annual R&amp;D budget:</b>	<b>Over €500 million</b>
<b>Annual output:</b>	More than 175 million tires produced, over 10 million maps and guides sold in more than 170 countries, and 875 million itineraries calculated by ViaMichelin
<b>2010 net sales:</b>	€17.9 billion

**An extensive portfolio of brands covering all market segments:** Michelin, BFGoodrich, Kleber, Uniroyal, Riken, Taurus, Kormoran, Warrior, Pneu Laurent, Recamic and Michelin Remix.

Discover the history of the Michelin Group with a visit to L'Aventure Michelin. Recent events and useful information is available at [www.laventuremichelin.com](http://www.laventuremichelin.com)

