

**MICHELIN Presents  
the MICHELIN X<sup>®</sup> Works<sup>™</sup>:  
The All-Terrain Tire That Does It All**

*Robustness and Endurance*

**Press Kit**

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## **MICHELIN X<sup>®</sup> Works<sup>™</sup>: The All-Terrain Tire That Does It All**

With a new tire range and a new service offer, MICHELIN is introducing a host of truck tire innovations with the goal of creating value for customers.

The system deployed is based on an all-new tire, the **MICHELIN X<sup>®</sup> Works<sup>™</sup>**. Intended for use on streets and roads as well as in and around worksites and quarries, this all-terrain tire combines robustness and endurance – robustness for worksites and endurance for the road. In addition to bringing to market a tire that delivers unrivaled performance in both of these areas, Michelin has further enhanced its offer with an accidental damage warranty that will be available to customers in France, Italy and Turkey through August 31, 2011.

When tires are used both on and off roads, the risk of accidental damage increases considerably. Tires that are used on worksites and 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 – ruts, stones, scrap metal, rubble.

The new range of 13 R 22.5 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 deployed its most advanced technologies to make the tire even more robust and reliable.

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> and its accidental damage warranty thus address 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 type of tire or range. For truck tires, the benefits fall into three categories: enhanced safety, greater cost-effectiveness and increased environmental protection.

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

## **The New MICHELIN X<sup>®</sup> Works<sup>™</sup>: Reducing Risks in and around Worksites**

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 new 13 R 22.5 MICHELIN X<sup>®</sup> Works<sup>™</sup> features a 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 km/h.

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

Because of its robustness, the MICHELIN X<sup>®</sup> Works<sup>™</sup> 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 and 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 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**

Because it is so durable, the 13 R 22.5 MICHELIN X<sup>®</sup> Works<sup>™</sup> has a retread rate of 88%<sup>2</sup>. As a result, 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 kg 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.

### **What's more, MICHELIN provides users not only with high-performance tires but also peace of mind, thanks to its warranties**

For greater peace of mind, Michelin customers in France, Italy and Turkey can take out a six-month accidental damage warranty when they purchase a MICHELIN X<sup>®</sup> Works<sup>™</sup> tire. This offer is valid through August 31, 2011.

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<sup>2</sup> Based on Michelin casing data for France, 2009.

In France, customers can also benefit from a guaranteed retread offer. When a MICHELIN casing is unserviceable – and thus not retreadable – because of a puncture or other damage, it will be replaced free of charge. The customer receives a MICHELIN Remix tire and pays only the retreading cost.

Thus for three years, customers can take advantage of the economic benefits of MICHELIN Remix retread technology in all cases, regardless of the original tire's condition. Beyond the three-year period, an average 88%<sup>3</sup> of 13 R 22.5 size tires can be retreaded.

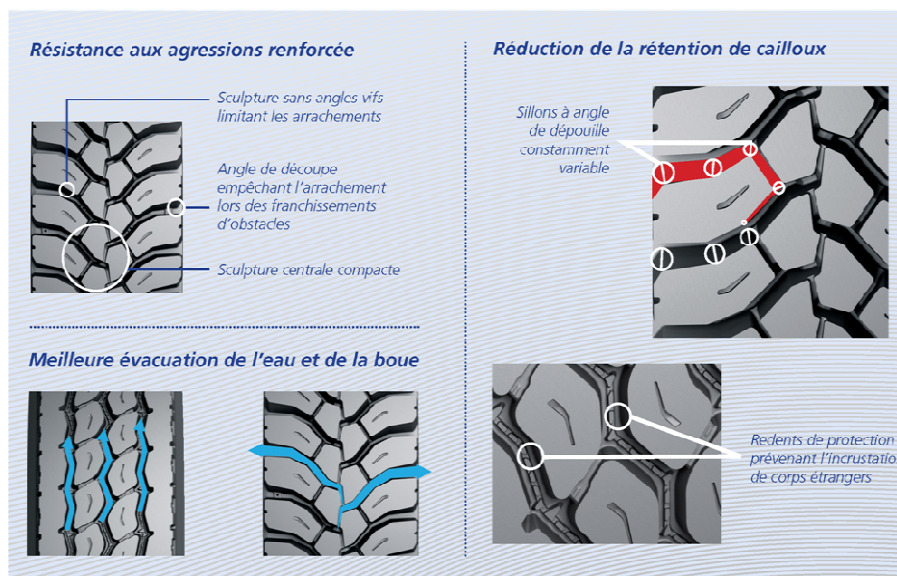
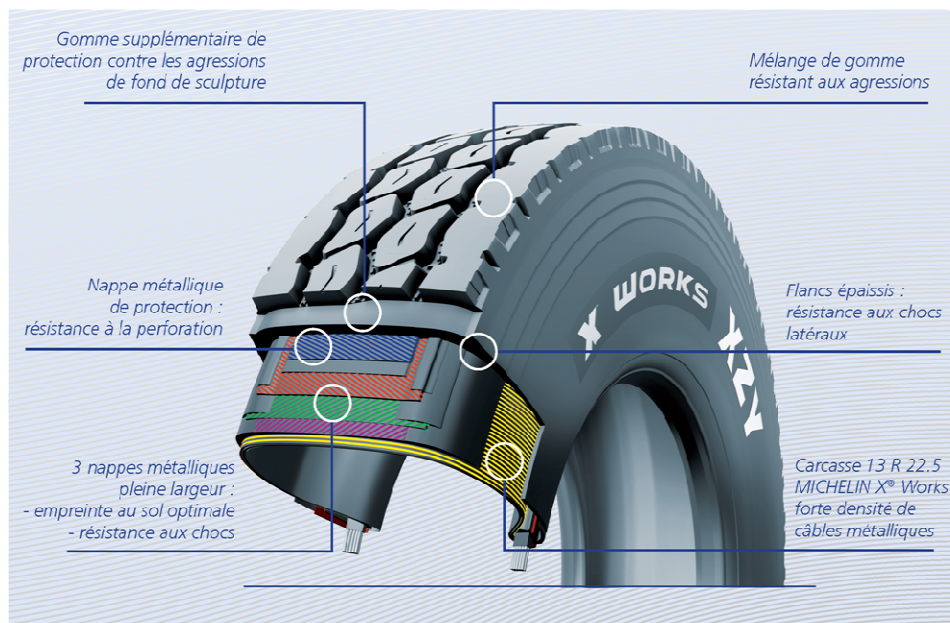
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<sup>3</sup> Based on Michelin casing data for France, 2009.

# The MICHELIN X<sup>®</sup> Works<sup>™</sup>: Technical Features

## Several sizes for multi-purpose use

The new MICHELIN X<sup>®</sup> Works<sup>™</sup> truck tire will be available in several sizes. The first to be launched is the 13 R 22.5 MICHELIN X<sup>®</sup> Works<sup>™</sup>, to be followed in October by the best-selling 315/80 R 22.5 version. Accounting for the largest percentage of original equipment unit sales in Europe and certain fast-growing markets like Turkey, the size is also making rapid gains in European replacement markets.



## A Closer Look at Michelin's Performance Balance Strategy

For Michelin, the challenge is to simultaneously improve performance in several areas, including grip, tread life, durability, damage resistance and fuel efficiency. Michelin's strength resides in its ability to enhance one performance feature without sacrificing another. This performance balance is the trademark of any MICHELIN tire.

Achieving this performance combination requires leading-edge technology, which is backed by an annual research and development budget of nearly €500 million – an unprecedented amount in the tire industry.

It's also the result of solid commitments. Nearly 20 years ago, the Group's research and development teams began designing truck and car tires capable of reducing fuel consumption – and consequently carbon emissions – without affecting safety and total mileage, which are key tire properties.

The new MICHELIN X<sup>®</sup> WORKS<sup>™</sup> truck tire is a tangible illustration of the Group's strategic commitment to never sacrificing one performance feature for another. As a result, MICHELIN tires represent a reliable solution for worksite customers looking to overcome the problems they face.

Regarding tires, Michelin's capacity for innovation resides in its ability to simultaneously improve performance in several areas, such as safety, damage resistance, endurance, load capacity and environmental protection. The strength and effectiveness of Michelin tires derive from this performance balance.

To reduce vehicle downtime due to tire-related incidents and resulting productivity losses, the Michelin Euro Assist service was introduced more than ten years ago. Backed by a highly reliable network of 3,200 selected service providers, Michelin guarantees a service call within two hours, anywhere in Europe. If that guarantee isn't met, customers are reimbursed the full cost of the service call. Membership is free and unlimited and the service is available around the clock. If the truck can be driven, the Stop & Go service directs the driver to the nearest Michelin Euro Assist specialist so that the vehicle is not out of service.

## Michelin's Unwavering Commitment to Sustainable Development

### ➤ Innovating to reduce the environmental impact of mobility

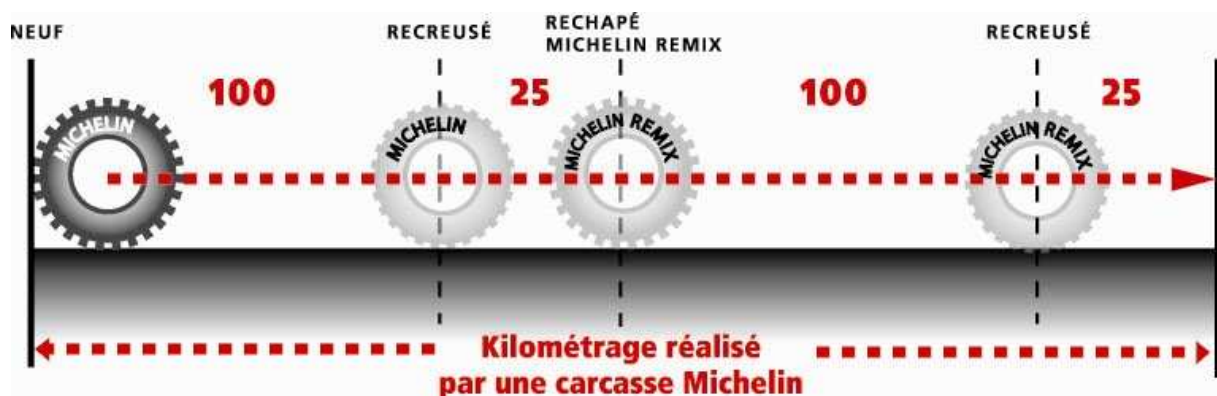
Reconciling environmental protection and enhanced mobility is a challenge that Michelin has been pursuing for a long time. In plants and factories, every effort is made to reduce the environmental impact of the production process, from the amount of energy consumed during manufacture and the quantity of waste generated to the quality of liquid and gaseous emissions.

### ➤ The 4 lives of a Michelin tire: using less raw material without sacrificing performance

A Michelin truck tire is designed to live four times.

Regrooving and retreading help improve tire mileage without sacrificing a tire's safety performance. The solutions developed by Michelin increase tire life by a factor of 2.5 while reducing raw material consumption by 70% to 75%.

#### The four lives of Michelin truck tires



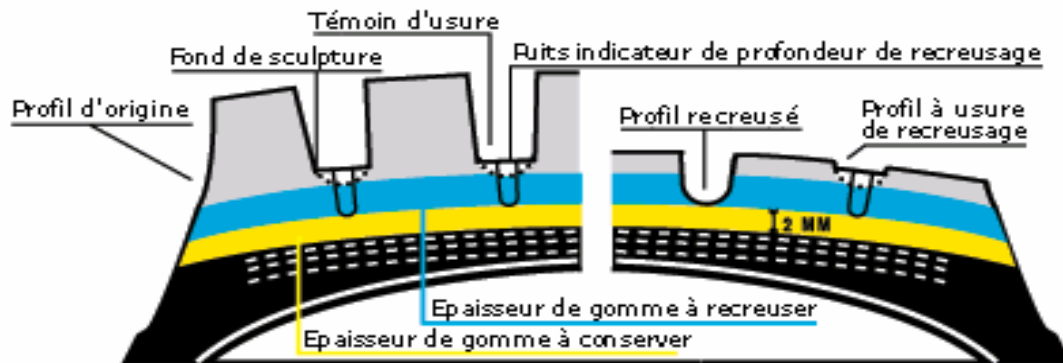
Regrooving is a key stage, which is why, beginning in the design phase, Michelin engineers specify an undertread of compound that is thick enough to allow high-quality regrooving without affecting either the strength or toughness that underpin the tire's safety performance.

Tires are regrooved when the tread depth is 2 to 3 millimeters. The process is carried out by an expert technician who retraces the original tread with a specialized, heat-activated regrooving tool. Regrooving gives new sharp edges and a tread depth of about 5 to 7 millimeters.

A regrooved new tire that is worn can be retreaded. The tire can then be reused until just 2 to 3 millimeters of tread remain, when it is regrooved for a second time, giving it a fourth life.

All Michelin tires have a regrooving well in the center of the tread wear indicators, to allow high-quality regrooving.





**A Michelin Remix retread delivers the same performance as a new product** in terms of total mileage, grip, handling, damage-resistance, rolling resistance, noise and road holding. Thanks to retreading, resources are conserved and fewer new tires are manufactured. By recycling worn tires, Michelin is actively supporting the principles of sustainable development.

Michelin is the only manufacturer that restores worn truck tires using the same processes, treads and rubber compounds as for new tires, thanks to Michelin's "just like new" Remix technology.

## Michelin Group: Milestones

For more than a century, MICHELIN has dedicated all its expertise and innovation to enhancing mobility 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 introduces 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 C3M tire manufacturing process.
- 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 agricultural tire that operates at a 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 MICHELIN X ENERGY™ SAVERGREEN truck tire.
- 2009:** 100th edition of the **MICHELIN guide France**.
- 2010:** The **10th MICHELIN Challenge Bibendum** held in Rio de Janeiro, Brazil.

## Key Figures

<b>Company founded:</b>	1889
<b>Production facilities:</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, MICHELIN Remix, Euromaster, TCI Tire Centers and TyrePlus.

Discover the history of the Michelin Group with a visit to L'Aventure Michelin.  
The latest news and useful information can be found at [www.laventuremichelin.com](http://www.laventuremichelin.com)

