#### Press Release

Boulogne-Billancourt

# The MICHELIN BibLoad Hard Surface



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Overview

# The MICHELIN BibLoad Hard Surface Diamond-shaped tread blocks... to create value

# ✓ Key information

Michelin is introducing a new tire for compact loaders. Called the MICHELIN BibLoad Hard Surface, the tire is available in ten new sizes.

Designed to operate on hard surfaces, whether dry or wet and even in winter, they feature an innovative, patented tread made of diamond-shaped blocks.



Michelin is unveiling a new range of tires, comprising ten different sizes and designed for compact loaders.

As its name suggests, the MICHELIN BibLoad Hard Surface is intended for machines that carry loads – sometimes heavy loads – and which operate on hard surfaces, whether dry, wet, damp or polished concrete surface, even in winter.

The tread is made of blocks with a totally original diamond-shaped design that give the tires unequaled, multidirectional grip. In addition to this innovative, patented tread, this new MICHELIN tire integrates technologies that provide the user with a host of benefits that create value for businesses. These include:

- Greater traction on all types of surfaces.
- Greater 360° stability.
- Enhanced comfort on the job.
- Greater resistance to sidewall cuts and scrapes.
- A longer lifespan compared with previous-generation tires.

The combination of these new qualities is the result of the MICHELIN Total Performance strategy, which consists of delivering more performance features in the same tire. Backed by a yearly budget of more than  $\in$ 640 million, the Group's research and development teams are fully focused on fulfilling this mission.



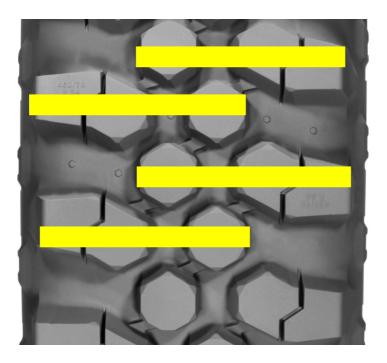
The patented tread of the new MICHELIN BibLoad Hard Surface is attached to a casing that has already demonstrated its robustness on the MICHELIN XMCL tire. Designed for compact line machines that operate on loose soil, the MICHELIN XMCL is the best-selling tire in its category, in both the original equipment and replacement segments.

Michelin thus now offers two radial tires for operators of compact line vehicles.

The tread pattern of the MICHELIN BibLoad Hard Surface delivers advantages in five areas:

#### 1. Greater traction on hard surfaces, whether dry, wet or polished concrete

The multidirectional tread patterns produce a "step-by-step" effect, meaning that the blocks on the outer shoulders and the diamond-shaped blocks located in the center form a consistent line. As a result, they deliver constant grip between the tire's central band and its shoulder. At the same time, this tread design improves comfort (see below).



## 2. Greater stability, to operate effectively at 360°

Each diamond-shaped block has six faces and twelve different ridges. As a result, the block is always in the right position to work effectively, regardless of the direction in which the vehicle is moving. Stability is constant, uniform and guaranteed regardless of the direction in which the loader is moving. The patented tread of the MICHELIN BibLoad Hard Surface is truly multidirectional.

In addition to the diamond-shaped tread blocks, the tire features shoulder lugs. They too have a specially designed shape that gets smaller from the center to the shoulder of the tire. As a result, earth and other surface materials that get stuck in the tread gaps are eliminated more quickly. The shoulder lugs also include a groove that enhances transversal grip on slippery surfaces.



#### 3. Enhanced comfort on the job

The improvement in operator comfort is underpinned by two properties of the tread: its rigidity and the reduction in vibrations when operating.

With every rotation of the wheel, 24 tread blocks on each side of the loader and 48 in the middle zone – 96 in all – come into contact with the ground in an unusual way that reduces the number of blocks simultaneously in contact with the ground. Consequently, there is no hammering effect, which reduces vibrations and noise, especially at high speeds.

#### 4. Improved resistance to cuts and scrapes

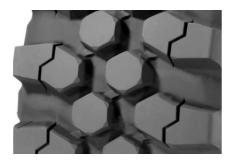


The MICHELIN Bibload Hard Surface owes its enhanced resistance to cuts and scrapes to two solutions: a special belt that protects the sidewall against scrapes, which are the kind of wear most often noted (see the yellow circle on the adjacent illustration).

In addition, a deflector protects the edges of the hubs when the tire is used on harsh surface and prevent stones to step in between the bead and the rim.

## 5. A greater lifespan

The tire's greater lifespan is due to two properties. The first is the larger amount of rubber in contact with the ground compared with the previous-generation tire. The second are the lateral bridges that connect the diamond-shaped blocks and the shoulder blocks, thereby reinforcing the tread when lateral pressure is applied. This improves resistance to wear caused by cargo shifting.



MICHELIN BIBLOAD Hard Surface Void ratio = 56%



Previous-generation MICHELIN tire Void ratio = 71%



The MICHELIN BibLoad Hard Surface size lineup at a glance:

MICHELIN BibLoad Hard Surface available in ten sizes
400/70 R20 149A8/149B IND TL BIBLOAD HARD SURFACE
460/70 R24 159A8/159B IND TL BIBLOAD HARD SURFACE
440/80 R28 163A8/163B IND TL BIBLOAD HARD SURFACE
340/80 R18 143A8/143B IND TL BIBLOAD HARD SURFACE
480/80 R26 167A8/167B IND TL BIBLOAD HARD SURFACE
500/70 R24 164A8/164B IND TL BIBLOAD HARD SURFACE
400/70 R18 147A8/147B IND TL BIBLOAD HARD SURFACE
540/70 R24 168A8/168B IND TL BIBLOAD HARD SURFACE
340/80 R20 144A8/144B IND TL BIBLOAD HARD SURFACE

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