Stay on the right track

Tri-Tech
Durability - Reliability - Performance

Bridgestone Rubber Track
A WORLD LEADER IN THE RUBBER INDUSTRY

Bridgestone was founded in 1931 and has grown to become the world’s largest tire and rubber products company, with 179 production facilities in 25 countries and sales networks in over 150 countries.

The company is renowned for its R&D and design capability, exemplified by the success of Bridgestone’s racing tires. This expertise extends to a wide range of products including automotive parts and industrial rubber products such as Rubber Tracks.

“Bridgestone... Serving Society with Superior Quality”

Bridgestone, Rubber Track Experts

It was Bridgestone engineers who pioneered the Rubber Track for excavators in the 1970’s. Construction machinery manufacturers all over the world have adopted our Rubber Tracks on their machines. Bridgestone is the world’s largest manufacturer of Rubber Tracks. By drawing on the group’s extensive R&D, design and testing resources and combining this with our vast experience of tracked vehicles, Bridgestone Rubber Tracks for excavators meet the most demanding specifications in the industry.
Technology

Using the latest Bridgestone technology Tri-Tech has improved durability, reliability and performance. Behind these three improvements Tri-Tech incorporates several new technical features including Pro-Edge, Tapered Core Metals, an Interlocking system, Anti-rust Steel Cord and Block Tread Pattern.

Tri-Tech

Three improvements using the latest technologies from Bridgestone

1. Durability
2. Reliability
3. Performance

Pro-Edge™
Bridgestone developed innovative Pro-Edge technology to minimize edge-cut damage. Pro-Edge technology is based on the combination of a rounded shape core metal edge design to avoid the build-up of stress concentrations and additional rubber volume on both inner and outer sides to make the track more durable.

Tapered Core Metal
Bridgestone has reduced the vertical movement of the track rollers by adopting an advanced tapered protrusion technology. This results in improved ride comfort without the need of additional material.

Interlocking
Bridgestone uses an interlocking design to reduce de-tracking. By interlocking adjacent core metals the track benefits from greater lateral stiffness.

Anti-Rust Steel Cord
Minimizing deterioration caused by rust. Even when moisture or mud penetrate from external cuts, steel cord tensile strength is maintained far longer with Bridgestone’s Anti-Rust Steel Cord.

Block Tread Pattern
A newly developed blocked type tread pattern reduces lateral slippage, allows efficient mud release and provides good ride comfort.
1. Improved Durability

**Pro-Edge Anti-edge cut**

Bridgestone’s Pro-Edge technology is now well accepted by many customers and proved in the market. The benefits of Pro-Edge are also proved by Bridgestone’s internal testing and by FEM analysis.

![Pro-Edge 4-fold improvement](300mm width track testing data on 3.5ton machine. Graph shows the number of trials made before edge cut occurred.)

2. Improved Reliability

**Interlocking**

Interlocking technologies have become common features in Bridgestone short pitch tracks. Positive market feedback, successful supply history and Bridgestone’s internal testing all confirm the benefits of interlocking technologies.

The following testing was carried out at Bridgestone’s proving ground in Tochigi Japan. Even in loose tension conditions (sag=45mm) interlocking tracks did not de-track.

<table>
<thead>
<tr>
<th>Tension</th>
<th>Track sag</th>
<th>De-tracking occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>15mm</td>
<td>Zero</td>
</tr>
<tr>
<td>Loose</td>
<td>30mm</td>
<td>Zero</td>
</tr>
<tr>
<td>Very Loose</td>
<td>45mm</td>
<td>Zero</td>
</tr>
</tbody>
</table>

![Test data from 5.3ton machine, 10 trials against fixed rock.](

**Anti-Rust Steel Cord**

Salt bath testing carried out over 7 days has proved over 41% improvement in performance compared with standard steel cord.

![Anti-Rust Steel Cord deterioration performance](120 Tensile strength ratio [%] 100 90 80 70 60 50 40 30 20 10 0 0 1 2 3 4 5 6 7 8 Test duration [days] Standard Anti-Rust steel cord)

3. Improved Performance

**Tapered Core Metal Better ride comfort**

Data obtained by FEM analysis and field testing clearly shows a reduction in vibration using tapered core metals. This brings greater ride comfort to the operator.

**Block Tread Pattern Improved Safety**

Thanks to the segmented block pattern, lateral slippage common when working on slopes is reduced. Operating therefore becomes safer.
## Product Range

<table>
<thead>
<tr>
<th>Track width (mm)</th>
<th>Number of links</th>
<th>Track pitch</th>
<th>Tread Pattern Code</th>
<th>Core metal type</th>
<th>Internal Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>64, 66, 68, 70, 72, 74, 78</td>
<td>48</td>
<td>R</td>
<td>-</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>300</td>
<td>74, 76, 78, 80, 82, 84, 86, 88, 90</td>
<td>52.5</td>
<td>R</td>
<td>Wide</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>74, 76, 78, 80, 82, 84, 86, 88, 92</td>
<td>52.5</td>
<td>R</td>
<td>Narrow</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>300 RAIL TYPE 1</td>
<td>80, 84</td>
<td>53</td>
<td>R</td>
<td>LK Rail</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>300 RAIL TYPE 2</td>
<td>84</td>
<td>53</td>
<td>R</td>
<td>LY Rail</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>400</td>
<td>68, 70, 72, 74, 76, 78, 82</td>
<td>72.5</td>
<td>R</td>
<td>Wide</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>68, 70, 72, 74, 76</td>
<td>72.5</td>
<td>R</td>
<td>Narrow</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
</tbody>
</table>

### Rail type track

**Rail type tracks are for machines which use an outside running roller which runs on the outer flat surface of the track (not on top of the core metals). There are two types of rail track depending on your machine. Check with your Bridgestone representative which type is compatible with your machine.**

- Pro-Edge Anti-edge cut
- Tapered Core Metal Better ride comfort
- Interlocking Avoid De-tracking
- Anti-Rust Steel Cord Anti-deterioration
- Anti-lateral slippage

### Track size indication

Track size is indicated by a size numbering system consisting of 5 elements. This part number is normally vulcanized on the inner surface of the track.

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x 84 x 52.5 R S
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- Width (mm)
- Number of links
- Pitch length (mm)
- Tread Pattern Code
- Type of Embedded Metal