How Tire Design Improves Solid Skid Steer Tire Life



Tire design in terms of shape and rubber compound formulation can have a substantial impact on its lifespan and durability. To ensure that you make a beneficial, lasting investment when choosing a solid skid steer tire, it’s important to carefully consider the design of a tire before making a decision. To learn more about how tire

design improves solid skid steer tire life, continue reading.

Evolution of design

The evolution of tire design and formula plays a central role in increasing the lifespan of solid skid steer tires. Recognizing the importance of design evolution, McLaren Industries actively takes in feedback from its extensive customer base which utilizes roughly 500 thousand tires with our logo on them every day. Based on how our customers used their machine, what parts wore out the fastest, and the environment that they used the tires in, we make slight changes to the shape of the tire and the tire's rubber compound formula.

Such continuous changes to our tire design allow us to create tires that last longer and perform better than ever before each year. Currently, our tires have undergone over 20 years of upgrades and refinements, which have resulted in the creation of some of the longest-lasting solid skid steer tires in existence today.

Design and shape of the tire

Another example of how tire design improves solid skid steer tire life is the shape of the tire. Every radius, contour, and angle of a solid skid steer tire design can have a significant impact on its lifespan and durability. For example, if certain radiuses are too small, premature cracking can occur, which can reduce the lifespan of the tire.

Another important factor in the design of the tire in relation to its longevity is its crown. In some cases, solid tires have a flat top without any crown. The absence of a crown can cause the edges of the tire to be torn, break off, or wear down quickly. Even if a tire includes a crown, poorly designed angles, curvature, and shape can still cause premature wear. When a crown is designed properly, it will last 65 percent or more of the tire life before it flattens out.

In addition, the cushion or shock absorption of the tire can also impact tire longevity. McLaren is a leader in designing tires with a superior cushioning effect. Such an effect helps create a smoother ride, reduces wear and tear on the machine, and helps prevent chunks of rubber from being broken off of the tire, ultimately increasing the tires' lifespan.

Design of the rubber compound formulation

When it comes to solid skid steer tires, looks can be deceiving. A brand new low-quality tire and a brand new high-quality tire will often look exactly the same. However, while two tires may look similar and weigh a similar amount, they can have very different lifespans based on their rubber compound formulation. Often, a tire with quality rubber compound formulation can last up to three times longer than a tire with poor quality rubber compound formulation.

Every year, McLaren does tests to improve the compound based on customer feedback and field research. Based on such information, we then test several potential upgrades to additives, polymers, and rubber chemicals to determine if they can improve our rubber formulation. If so, they are utilized, resulting in an improved and longer-lasting tire.

McLaren is a leader in solid skid steer tire design and a pioneer in the field. With over 20 years of experience and continuous upgrades, you can trust that our tires feature fully-optimized designs and top-quality rubber compound formulation. For more information regarding our solid skid steer tires or other skid steer products

such as mini excavator attachments, over-the-tire tracks, and rubber tracks, call or contact us today.