Soucy BARON BLOG

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Innovations in Rubber: Tackling the Challenges of the Compact Track Loader (CTL)

The emergence of innovative technologies in the construction industry, particularly for machines such as compact track loaders (CTLs), is boosting the demand for high-performance materials. With its unique properties, rubber plays a crucial role in this transition.

At Soucy Baron, manufacturing rubber parts is our specialty. We're passionate about sharing our expertise in elastomers to meet the challenges presented by CTLs, their evolution, and the advances that are on the horizon.

In a time of energy transition, the electrification of CTLs is also a topic we're attuned to. That's why it's important to have the big picture.

Let's hop onboard a CTL together to learn more!

What is a compact track loader?

A CTL is a tracked machine designed for handling and moving materials over various terrains. Similar to a skid steer loader, a CTL is distinguished by tracks that allow it to operate effectively on uneven or muddy terrain.

It's commonly used in construction, agriculture, and forestry for tasks such as digging, lifting, and transporting materials.

The role rubber plays in compact track loaders

Rubber plays an important role in the efficiency and durability of the machine, as well as in the comfort of the operator.

It provides numerous benefits: it makes the machine lighter, minimizes vibration and noise, and increases systems durability, whether hydraulic or electric.

Examples of rubber parts in CTLs

At Soucy Baron, we develop high quality rubber components with the goal of improving the overall performance of CTLs.

Here are a few examples that highlight the importance of rubber in both electric and non-electric CTLs.

Engine mounts & cabin mounts: We use an optimal compound of elastomers to design mounts that absorb much of the engine vibration. These mounts protect mechanical and electrical systems from damage caused by continuous vibration. That means less wear and tear on components and a better user experience.

Rubber Washers: Our rubber washers ensure a robust fit, to prevent corrosion and unwanted vibrations. They also play a part in sound insulation and corrosion prevention.

Axial cable: Integrating axial cables into the tracks increases their resilience and load capacity, while ensuring even weight distribution.

Wheels: Our wheels are made using rubber that is specially formulated for this application, to offer better grip and abrasion resistance.

Footrest: Our ergonomic approach means our footrests are durable and comfortable, which contributes to the operator's wellbeing.

Rubber sealing rings and gaskets: Rubber sealing rings and gaskets prevent fluid leakage. By using high-quality elastomers, we ensure maximum sealing.

The challenge of electrifying compact track loaders

The electrification of CTLs presents a fresh set of challenges. Ensuring optimal energy efficiency, while also ensuring safety and durability, is paramount.

Rubber components must be able to withstand temperature variations, vibrations and heavy loads. In addition, energy storage, heat management and overload resistance are key concerns in the transition to electric.

As a result, rubber components need to be more durable than ever.

The solutions lie in the hands of experienced engineers and the science of rubber. Rubber can resolve any number of issues. Both resistant and flexible, it's the ideal material to adapt to this new era of the electrification of construction vehicles and other engine equipment.

Soucy Baron: Your partner for customized solutions

The importance of a trusted relationship with an experienced rubber parts manufacturer can't be overstated. Expertise in rubber chemistry, the ability to perform rigorous testing and simulate different operational conditions are essential to meet the specific requirements of CTLs.

These partnerships have many advantages:

- **Technical expertise:** A deep understanding of the properties of elastomers allows us to design parts that precisely meet the requirements of electrified and non-electrified CTLs.
- **Rigorous testing:** With state-of-the-art facilities and specially designed simulation software, we're able to simulate various operational conditions, ensuring that every part will perform as intended.
- **Continuous research:** Our chemists are continuously researching and developing new compounds to meet ever-increasing challenges.

In sum, CTLs are a crucial part of the future of construction, and rubber is at the foundation of their efficiency and durability. By working closely with elastomer experts, CTL manufacturers can feel confident they're offering strong, long-lasting products to their users.

At Soucy Baron, quality is in our DNA. Our chemists and engineers work together to develop customized solutions that perfectly fit the needs of each manufacturer.

The benefits for our customers are clear: high-quality, rigorously tested products and expertise that pushes the boundaries of rubber.

Dive deeper into the world of elastomer innovation with Soucy Baron.
Discover our solutions here.