

BRAKESAFE WHEEL END BRAKES

Your Fail-Safe Solution
for Hilux Underground





OVERVIEW

Light vehicles, such as the Toyota Hilux, hold importance in mining operations due to their reliability, off-road capability, durability, versatility, and efficiency. Their performance in challenging environments, coupled with their adaptability and ease of servicing, have contributed to their widespread use in numerous mining regions globally.

It's the rigorous conditions of underground mining where a robust brake system becomes critical. Explore how ABT's new **BrakeSAFE Wheel End Brakes for Hilux** optimise safety and efficiency whilst minimising cost and emissions for the Hilux in underground settings.

BrakeSAFE Wheel End Brakes

Equipped with a **Spring Applied Hydraulic Release (SAHR)** fail-safe component and optional interlocks, the integrated Park and Service Brake system automatically activates upon pressing the E-Stop button, turning off the engine key, or opening a vehicle door. These failsafe features eliminate the risk of unintended vehicle movement, ensuring an unprecedented level of safety for operators and site personnel. The mandated use of this technology in specific mining jurisdictions attests to its effectiveness.



ABT's BrakeSAFE braking system is adaptable to vehicles equipped with either disc brakes or drum brakes. Our brakes feature a single brake rotor and distinctive grooved brake pads. Enclosed within an oil-filled, sealed casing, the brake system is shielded from foreign abrasives and corrosive materials, ensuring reliability. This complete seal reduces vehicle maintenance needs and improves vehicle availability, making it a more cost-effective brake system.

Navigating Mining Challenges: ABT's BrakeSAFE Wheel End Brakes Offer Solutions

Mining operations have demanding environments that make a dependable brake system imperative for vehicles like the Toyota Hilux. A reliable brake system ensures immediate and secure stopping during emergencies, this is critical given the traffic mix of heavy machinery and personnel at underground mining operations. Moreover, the brake system must provide effective stopping power to prevent accidents and ensure control. Frequent stops and starts, and the steep declines inherent in underground mining operations, necessitate a reliable brake system to respond promptly and efficiently to changing operational conditions.

Navigating the rugged terrain of mining sites demands more than just a brake system—it requires precision and reliability.

Explore how ABT BrakeSAFE solutions enhance brake performance in these mining conditions:

Brake Issues



Unintended vehicle movement due to steep inclines and declines, Hard Rock Walls and Stop/Start frequent alighting vehicles



Overheating and Inadequate cooling, and hydraulic system failure



Component wear and tear



Brake material and design



Contaminants



Inadequate maintenance



Air filtration represents a significant investment for underground operators

BrakeSAFE Solutions

- ABT BrakeSAFE brakes provide backup activation methods designed to support the operating environment and vehicle operator activities.
- BrakeSAFE brakes provide optimal thermal performance.
- Sealed ABT brakes prevent wear and tear in harsh rugged operating environments. ABT brakes offer superior brake pad life.
- Specifically designed for mine gradients over prolonged distances.
- Sealed Brakes prevent intrusion of contaminants.
- SIBS offers superior Service Cycles.
- Our brakes prevent 100% of Brake Dust Particulates from emitting into the environment where clean air is critical.

How It Works

The **BrakeSAFE System** works by extending the brake caliper to enclose the disc, forming a split housing. The inner housing is mounted to the axle end, and after installing the pads, disc, and hub, the outer housing completes the assembly.

Our patented cooling fluid, a specially selected oil, is added to the housing, facilitating heat transfer from the brake disc to the housing. This allows the heat to be rejected to the surrounding air, effectively controlling the operating temperature of the braking system.

BrakeSAFE technology

emerges as a versatile solution that covers both service and park brakes, adapting seamlessly to diverse operational conditions.

