

Autonomous Haulage Systems & Beyond



The Future of Mining Truck Technology



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Electric and hybrid power



As the demand for more sustainable mining practices grows, there is an increasing focus on electric and hybrid-powered mining trucks. These trucks could reduce emissions and operating costs while providing similar or greater power and performance.

Advanced materials



The use of advanced materials like carbon fiber, aluminum, and titanium could reduce the weight of mining trucks while maintaining or improving their strength and durability. This could improve fuel efficiency and reduce operating costs.

Machine to machine integration



Trucks should be able to work autonomously with shovels, excavators, drills, jumbos, loaders, draglines, ancillary equipment such as graders, water carts, fuel trucks, dozers, light vehicles etc.

Real-time data analytics



Mining trucks could be equipped with sensors and data analytics tools to monitor their performance and provide real-time feedback to operators. This could improve maintenance scheduling, reduce downtime, and increase efficiency.

Artificial intelligence



AI could be used to optimize mining truck routes, improve fuel efficiency, and reduce environmental impacts. AI-powered predictive maintenance could also reduce downtime and improve safety.

Autonomous driving



Autonomous driving technology is already being used in some mining operations, but there is potential for further development and expansion. Fully autonomous mining trucks could increase safety, reduce operator fatigue, and improve productivity.