

# PRODUCT NEWS

**A**ramine has unveiled its latest innovation: the L440B battery-powered loader for underground mining. Designed to revolutionise the mining industry, the L440B demonstrates Aramine's commitment to sustainability, efficiency, and operator safety.

Following the success of its first battery-powered machine, the L140B mini loader, in 2016, it was an obvious choice to expand the range by developing a machine with a much greater capacity but with the same promises: a significant reduction in CO<sub>2</sub> emissions, improved working conditions for the same output, and, above all, all without the need for a permanent installation in the mine.

The L440B boasts a robust payload capacity of 4.6 t, making it capable of handling heavy-duty tasks in underground mining operations. Its powerful electric motor delivers ample torque and horsepower, ensuring efficient and productive performance in various mining conditions.

Aramine has designed an innovative battery system that has proved its worth on the L140B: a fully detachable energy module at the rear of the machine with integrated batteries and charger. With an autonomy time equal to the charging time (four hours), a machine with two energy modules operates without interruption. Not to mention the fact that the electric motor requires less maintenance than a diesel engine. These two advantages mean that the machine can operate with minimum downtime, offering optimum productivity. Furthermore, the machine's compact design and excellent manoeuvrability make it ideal for working in tight spaces.

Safety is essential in the mining industry, and the L440B has been designed with this in mind. The loader features a spacious, ergonomic cab that provides excellent visibility and operator comfort. In addition, the L440B's electric transmission eliminates

the risk of fuel spillage and fire, making it a safer choice for underground operations.

Opting for a battery-powered machine considerably reduces CO<sub>2</sub> emissions in the mine: according to the European Union's ADEME CO<sub>2</sub> emissions factor, over 8000 hours of use, compared with its diesel equivalent, each L440B saves 438 t of CO<sub>2</sub>e (i.e. a reduction of 17 kg of CO<sub>2</sub>e per hour of use).

The environmental benefits of the L440B extend beyond reduced emissions. By eliminating the need for ventilation systems to remove diesel fumes, mines can significantly reduce their energy consumption. Additionally, the L440B's long service life and minimal maintenance requirements contribute to a smaller overall environmental footprint.

The Aramine's L440B represents a milestone in the evolution of underground mining equipment. By combining cutting-edge technology with a focus on sustainability and safety, Aramine has created a machine that is poised to redefine industry standards. As the mining industry continues to seek more sustainable and efficient solutions, the L440B is well placed to become a leading choice for operators worldwide.

And this is just the beginning for Aramine, whose engineers are already working on the mining machines of tomorrow, to expand the range of battery-powered machines. With the L140B loader (capacity: 1.3 t), the L440B loader (4.6 t), and soon a mining truck, the French manufacturer will, in the near future, be able to offer mining companies a complete fleet of battery-powered machines that significantly reduce CO<sub>2</sub> emissions.

At MINExpo in Las Vegas, Aramine will be showcasing its latest version of the popular L140B, featuring a new energy module (Booth 11745 – West Hall). It incorporates more energy in the same space, improved software to optimise smooth operation and

battery consumption, an enhanced data collection system for better fleet maintenance and monitoring, and a number of other mechanical innovations.

This will of course be an opportunity to present the L440B, the first examples of which are due to be delivered to customers around the world in the coming months. **GMR**



Figure 1. An L440B loader – the latest example of battery-powered mining equipment from Aramine.