



FLEET OF FOOT

NB Industries is leading the collaboration with mining industries across Australia by lending its technical expertise and knowledge of the hardware, machinery and the rugged conditions that fleet management systems are installed on.

Queensland-based NB Industries is one of a unique group of approved installers for Original Equipment Manufacturers (OEM) of fleet management systems, with a focus on size, reach and experience.

The company provides turnkey solutions for the installation and maintenance of fleet management systems across any application Australia-wide.

Installing a fleet management system (FMS) is an enormous investment for mining companies and a quality fleet management system is critical.

The systems provide real time data that continually monitors the health of a machine and supplies warnings designed to prevent costly component failure. Driver behaviour can also be monitored.

Preventative maintenance and hazard avoidance mechanisms significantly reduce the chance of unscheduled downtime of machinery and equipment and this can result in large savings to companies by limiting production losses.

The company has an experienced team that can deliver FMS installation projects to a quality OEM standard.

Installations are tailored to the specific equipment type and provide an end solution that is both easy to maintain and hardened to reduce machine failure.

This maximises the life of the hardware and improves the overall return on investment.

NB Industries' TQ auto electricians have comprehensive experience working with heavy mining machinery and have been conducting end to end tier 1 FMS installations since 2016.

This year NB also embarked on BMA's first Komatsu FrontRunner ancillary installations for the Goonyella Riverside mine's automation system.

According to NB Industries managing director Michael Selby, these projects have equipped the company with a distinguished understanding and experience with this new technology.

"Being involved with the first deployments of autonomous haulage awareness systems on the east coast of Australia, has really put us at the forefront of this game changing technology," he said.

"It has equipped us with unique experience and knowledge that very few companies in Australia can offer."

The company's strengths include its size, reach and highly tailored expertise that has literally been developed at the coalface, responding and adapting to the challenges that face mining companies and finding answers to problems.

"With a full complement of multi-skilled tradespeople, we are able to pull a lot of moving parts together including customised solutions for fabrication, auto-electrics, communications, commissioning and deployment," Mr Selby said.

NB Industries right now is leading the collaboration with mining industries across Australia by lending its technical expertise and knowledge of the hardware, machinery and the rugged conditions that FMS's are installed on.

The company's expertise is being sought by major mining companies such as BHP, Glencore, Downer and Thiess to ensure that their entire fleets meet specific standards and they can be certain that safety guidelines are adhered to.

The company designs and fabricates mounting equipment that provides stable and secure platforms for the installation of sensors and remote communication hardware.

NB Industries business development manager Simon Plant said that when running an autonomous fleet of dump trucks, all the ancillary vehicles that enter the autonomous zone also need to be fitted out with the appropriate sensory hardware.

"If this is not done, the driverless vehicles (trucks) are unaware they are in the vicinity and safety is compromised," he said.

Because of this, an investment in remote controlled or autonomous vehicles does not just involve the equipping of the trucks themselves, but also the careful placing of computerised awareness hardware on the entire ancillary mining fleet.

This fleet can include loaders, excavators, utility vehicles and every other machine that enters the autonomous zone.

"The requirements set out to implement these installations are the highest in the industry," Mr Plant said.

The company can also produce and supply as-built, commissioning, and quality check documentation that detail the installation process alongside capturing critical data that can prevent inefficiencies down the track.

Customised Mounting Equipment

NB Industries' unique service for fleet management installation and maintenance includes fabrication of customised solutions to a mining company's particular need.

When installed hardware faces conditions that were not anticipated by the OEM, NB Industries uses its knowledge of both the environment and the machinery to design and fabricate specific mounting apparatus to suit each client's machinery.

"This is the advantage offered by a local and well-established firm, with strong roots in the Bowen Basin and Mackay," Mr Selby said.

OEMs generally come in kit-form to be applied to generic machinery and may not be adequate in the field.

NB Industries is assisting clients by designing and fabricating more sturdy solutions, adding screens or other parts that create a more durable platform for the sensors to run off.

The company's experienced technicians anticipate hazards and environmental challenges and use their knowledge to manufacture mounting devices that will minimise any potential damage.

It finds solutions to the multiple challenges that they are encountering in the field including excessive heat, vibrations, dust and failing equipment.

"A solution to improving the performance of wireless radio communication on heavy vehicles is to design, install, and commission every machine to the highest standard and in a manner that provides maximum visibility between the vehicle antennas and

the site infrastructure," Mr Plant said.

"However, in some cases when you install antennas for maximum visibility, the hardware is then further exposed to detrimental external conditions.

"Understanding how heavy vehicles are used in the field, allows us to design and install communication components in an optimal location for the best coverage and reliability."

Maintaining the System

As a major investment, the outlay committed to by a company to a fleet management system needs to be backed up by the confidence that it will work reliably and continuously.

"If any key hardware fails or is damaged, the machine effectively disappears from the control room monitors and becomes what is called a ghost machine," Mr Plant said.

NB Industries will follow up its expert installation with on-going maintenance of all hardware, keeping the system working and allowing real-time monitoring.

As a locally-based company, it has an experienced and responsive workforce that can visit sites quickly and are available 24/7.

Heritage

Originally established in Northern Beaches, NB is Queensland-owned and operated and grew from a small auto-electrical and air-conditioning company to become a major player to mining companies across the region.

It is now in a position to complete a project from end to end, supplying all technical staff for customers, and saving the need to hire multiple contractors.

The company employs a local workforce that receives strong support and development opportunities and employees are encouraged to be community-minded. **AMR**

