



CHALLENGE: ENHANCING SAFETY IN A HAZARDOUS QUARRY ENVIRONMENT

Operators working near heavy machinery faced safety risks from falling debris. A remote control solution was needed to improve safety without compromising efficiency.

SOLUTION: REMOTE CONTROL SYSTEM WITH PARKER IQAN TECHNOLOGY

Rotec Hydraulics installed a Parker IQAN-based remote control system, enabling safe vehicle operation, real-time monitoring, fail-safe circuits, and improved communication.

BENEFITS: INCREASED SAFETY, EFFICIENCY & RELIABILITY

The system reduced risks, enhanced productivity, improved communication, and lowered maintenance costs, ensuring a safer and more efficient quarry operation.

ROTEC HYDRAULICS

PARKER CERTIFIED DISTRIBUTOR SPECIALISING IN PROVIDING QUALITY DESIGN, BUILD, INSTALLATION AND MAINTENANCE OF HYDRAULIC, PNEUMATIC AND ELECTRICAL MECHANICAL SYSTEMS.

ENHANCING QUARRY SAFETY & EFFICIENCY

A leading UK building materials supplier needed to improve operator safety and efficiency at a limestone quarry, where workers were exposed to hazardous conditions near heavy machinery. Partnering with Rotec Hydraulics Ltd, a trusted Parker distributor, the company implemented a remote control system using Parker IQAN technology.

“ This project is an example of another pioneering Parker IQAN project we have completed at Rotec Hydraulics.

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Paul Prouse, Managing Director of Rotec Hydraulics Ltd.

Rotec Hydraulics Enhances Quarry Safety and Efficiency with Remote Control System

A major UK building materials supplier faced a critical safety concern at one of their South West England limestone quarries.

Two tracked vehicles responsible for maneuvering a large conveyor system required operators to work in close proximity to the moving equipment, exposing them to the risk of falling debris.

The Parker Distributor Solution

To mitigate these risks, Rotec Hydraulics designed and installed a cutting-edge remote control system. Utilising Parker IQAN technology, the system enables operators to control the vehicles from a safe distance, significantly improving on-site safety.

Key Features of the Solution:

• Enhanced Safety:

- Remote operation minimises operator exposure to hazards.
- Dual-channel fail-safe circuits with emergency stops on the remote control ensure maximum safety and bringing the equipment up to modern safety standards.
- Integrated engine monitoring system provides real-time alerts, preventing equipment malfunctions.
- Backup electronic joysticks have been installed locally on the vehicle if the remote control was ever to become damaged during use, eliminating the risk of the vehicle becoming stranded in this rare scenario.
- New control system integrates with existing engine controller to



allow warning messages to be displayed on screen, providing the operator with ultimate feedback if any engine faults develop during use.

• Improved Efficiency:

- Allows for synchronised tandem lift operation of both vehicles, increasing efficiency and productivity.
- Eliminates the need for multiple banks-persons/hand signals and improves communication between operators as they can now stand next to each other.

• Advanced Technology:

- Utilises Parker IQAN technology for reliable and safe control.
- Existing manually operated valves were exchanged for electronic proportional control, allowing the operator to drive all the hydraulic functions remotely that were previously only available using hydraulic levers locally on the vehicle.

- Bluetooth connectivity enables remote system monitoring, diagnostics, and software updates.
- Customisable features, including remote control branding and switch configurations, cater to specific client needs.

Results & Benefits

The new system delivered measurable improvements:

- Significantly improved safety, keeping operators out of harm's way.
- Increased efficiency through synchronised tandem lift operation of both vehicles.
- Enhanced communication, eliminating the need for hand signals or multiple banks-persons.
- Improved equipment reliability with proactive monitoring, reducing maintenance costs and downtime.

Strengthening Partnership Through Innovation

With its expertise in hydraulics and control systems, Rotec Hydraulics Ltd successfully implemented a robust and user-friendly solution tailored to the customer's needs. The project showcased how Parker IQAN technology enhances safety, boosts efficiency, and delivers advanced system monitoring.

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Parker Iqan technology offers immense value to our customers. By utilising this innovative solution range, we can enhance safety, boost efficiency, optimise performance, and provide robust system monitoring capabilities to our clients.

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Paul Prouse, Managing Director of Rotec Hydraulics Ltd.