

MAGNETEK ENGINEERED SYSTEMS

John Taylor Crane Services Ltd.



Project — John Taylor Crane Services Ltd.

Application — Tracked Carrier Platform Control Replacement

Location — Bedfordshire, United Kingdom

Products Used

- Flex Pro™ Transmitter
- MHR Radio Controller

CHALLENGE

- Provide a flexible wireless solution with capacity for future enhancements
- Increase manoeuvrability for safety of lifted loads
- Allow operators to better control carrier speed
- Replace existing wireless controls with compact alternatives

SOLUTION

- Magnetek designed custom 8-button handheld wireless controls
- Improved directional accuracy using buttons configured with proportional control
- Incorporated four modes of adjustable speed settings for precision control
- Supplied a transmitter and receiver package to occupy limited space on equipment



As a family firm of crane specialists, JT Cranes has developed an innovative tracked platform intended to reduce the need for manual handling. The D40 Tracked Carrier is designed to operate where forklifts and other machinery cannot manoeuvre.

Mounted on continuous tracks and positioned low to the ground, the D40 can easily move across rough indoor or outdoor terrains and traverse ramps up to 40 degrees.

The D40 is able to carry loads up to four tons despite its compact design. Its load-carrying platform can rotate 360 degrees, allowing for enhanced manoeuvrability compared to traditional crane systems. JT Cranes looked to incorporate flexible and precise wireless controls into their carrier systems to enhance the D40's versatility. The D40 required the highest levels of manoeuvrability for lifting in small spaces in order to move forward and backward, around tight corners, and fit through standard doorways.

While JT Cranes originally considered a larger bellybox transmitter for the application, they discovered a more compact, versatile option best suited to the D40's requirements: Magnetek's 8-button Flex Pro transmitter. The Flex Pro incorporates the latest in proportional control technology in a lightweight, comfortably contoured, yet durable case. Flex Pro offers precise management and smooth control of all functions.

The Flex Pro transmitter was customized by Magnetek to meet the carrier's exact needs, providing adjustable speed control in a four mode setting to deliver 25, 50, 75, or 100 percent output for precise machine movement. Smooth movements are essential for successful carrier operation, particularly when moving fragile loads, such as art pieces. Additionally, the stepless variable speed control ensures that operators have an enhanced level of control over the carrier.

ADVANTAGES OF USING MAGNETEK'S RADIO CONTROLS GROUP

- Experts in providing innovative, cost-effective, custom-engineered wireless communication products
- Meet application specifications to reduce internal engineering, improve time to market, and enhance performance
- Customized application software
- Aftermarket service and support

The Flex Pro transmitter is paired with Magnetek's patented MHR radio controller, which combines the components of a radio receiver and up to 16 hydraulic proportional valve controllers into a single convenient unit, reducing costs and freeing up valuable space on equipment. The MHR utilizes an informative graphic display to easily view system settings and machine functions. Two-way feedback provides operators with precise information about equipment performance. The MHR's rugged, waterproof design makes it ideal for outdoor use and harsh environments.

Magnetek's transmitter and receiver system improved the level of control operators had over the tracked carrier. Proportional control provided smooth movements for the safety of lifted loads and greater spatial control for manoeuvring the D40 in tight spaces. The Flex Pro and MHR integrated so easily with the D40 that JT Cranes plans to install the system on additional tracked carriers. The systems' flexibility also makes future enhancements, such as engine start-up buttons, a simple modification.

