

Case Study
(2-Minute Overview)

R&M's Spacemaster® SX Electric Wire Rope Hoists and Components in a Magnet Crane Application



Features/Benefits Provided:

- Smooth starts and stops
- Fast, efficient handling
- Accurate load placement
- Protection against the elements

OVERVIEW: The project required a 40 ton capacity double girder top running crane with two (2) 20 ton capacity hoists equipped with magnets for use in a CMAA Class D Service steel plate handling application. This heavy-duty application also called for a high hoisting speed, high trolley travel speed and a high bridge travel speed. The location for this application was under a roof with the sides of the building open exposing the equipment to the elements.

“Engineering the components and features around the customer’s process was a critical factor in our success. From concept to start-up, R&M worked closely with all parties to ensure proper product application and total customer satisfaction.”

*Richard R. Kelps, President
Wolverine Crane & Service, Inc.*



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SOLUTION: R&M provided a QX Modular Crane Package utilizing the Spacemaster® SX electric wire rope hoist and SHR series end trucks. To meet the heavy-duty high-speed requirement the two (2) 20-ton capacity hoists were ASME H4 duty rated with a maximum hoist speed of 25 fpm and a maximum trolley speed of 100 fpm. The hoist motors included encoders for closed loop inverter hoist control. The bridge travel speed was 200 fpm maximum. Infinitely variable speed inverter controls were utilized in all three functions providing smooth acceleration and deceleration, minimal load swing, fast efficient handling and accurate load placement.* For protection against the elements the hoist and trolley motors were provided with standby heating and IP66 protection. The crane controls were provided in a heated & air-conditioned enclosure. An electromechanical load limit switch and an upper travel hoist limit switch were provided for additional safety.

WRAP UP: The R&M QX Modular Crane Package combined with the addition of the closed loop inverter dual hoist control and other options provided the customer with reliable crane components to meet the high speed heavy-duty specifications and also provide protection against the elements.

* Controls provided by Drivecon, Inc.

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