PRESS RELEASE HAW12

Hoist & Winch is pillar of support in overhead crane project

The design and installation by Hoist & Winch Ltd of replacement end carriages for two overhead cranes reached its conclusion recently with the end user expressing complete satisfaction in the outcome. Previously, the 2-ton swl (safe working load) manual overhead cranes were suffering from potentially dangerous crabbing problems due to the original design of the end carriages. Hoist & Winch thus had a responsibility to work expediently and professionally, with the aim of bringing this concerning issue to a safe resolution.

Alongside the supply, installation, hire and load testing of hoist units/cranes for all types of industries, Hoist & Winch also offers lifting equipment refurbishment and rectification services. With each project of this type presenting its own set of challenges, the company comes to the fore in tackling work that competitors often prefer to avoid.

For this project, the relatively high-temperature working conditions and access requirements were a factor due to the basement location of the manual cranes in a large, ageing building in central London. The cranes work over two large gas-fired piston engines that provide heat to neighbouring buildings.

The core objective was to design and install replacement end carriages for the cranes that in the first instance would eliminate the potentially dangerous crabbing issues. Due to this problem, the cranes had not performed correctly since initial installation.

Crabbing occurred because the original end carriage wheelbase was insufficient for the crane span, exacerbated by insufficient tread depth on the crane wheels. During long travel motion, the end carriage wheels would try and ride up (crab) on to the crane rails, a situation that can potentially lead to crane derailment.

With a solution required urgently, Hoist & Winch performed a detailed site dimensional survey to gather important design information and check the alignment of the existing crane rails. The company then set about designing replacement end carriages with a longer wheelbase and new crane wheels featuring deeper tread. Side-acting crane rail guide rollers at each extent of the end carriages were a further important part of the new design.

Working closely with the customer's on-site scaffold team, Hoist & Winch carried out a comprehensive installation survey. For the rectification work, the scaffolders agreed to build a temporary tube and board scaffold below each crane, providing both general access and jacking positions to raise and lower the cranes when replacing the end carriages.

Hoist & Winch submitted a Risk Assessment Method Statement (RAMS) for approval by the customer. The RAMS detailed the installation procedure, the required equipment, and the hazards and risks associated with the various tasks and how appropriate actions would mitigate accordingly.

Following a five-week period to manufacture the replacement end carriages, installation took place over four days for both cranes. The work included dynamic load and 125% proof load testing with a certified roller test load for each crane. A series of lifting beams helped to move the test load into the

basement area via the use of temporary manual hoist units.

Hoist & Winch issued a Thorough Examination report in accordance with LOLER (Lifting Operations and Lifting Equipment) regulations.

"The new replacement end carriages served to eliminate the crabbing issues exhibited by the original crane design," confirms Hoist & Winch Director Andy Allen. *"Our customer was very satisfied as they could carry out essential maintenance work on the gas-fired piston engines that was previously delayed. The successful conclusion of this task is yet another example of how Hoist & Winch works with its customers in a professional way to overcome challenging issues and bring genuine added-value to lifting projects."*

Visit www.hoistandwinch.co.uk for further information and to view recent case studies.

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