



UTILITIES CASE STUDY

SAPA POLE PRODUCTS

Sapa Pole Products recently opened a new facility in the Midlands for the storage of stock aluminium lamp posts. The depot would hold stock to enable them to offer a “trade counter” supply to the local utilities companies. Whilst being ideal for their space requirements, the building housed some heavy duty Demag double girder overhead cranes, which were quite antiquated for the requirements of the company. Sapa needed to lift long lengths of product, preferably on two points to ensure safe and level control of the load and accurate alignment when being stacked.

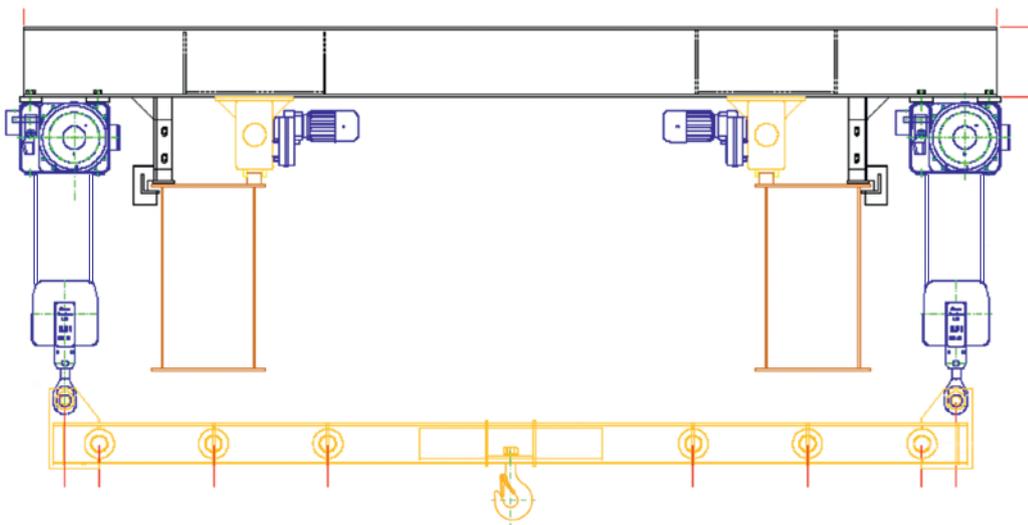
The brief

Provide a safe and efficient method of lifting long lengths, preferably with a tandem lift, whilst minimising the project cost by utilising the existing cranes.

Ensure the cranes could be returned to their original condition in the future.

The solution

Utilising the existing structures, we removed the existing foot mounted hoist units, created a new mounting frame with two new hoists positioned to the outside of the existing crane box girders, which provided a tandem lift at increased lifting centres. This allowed for greater control of the product being lifted. The hoists were high speed wire rope hoists, which were permanently attached to a purpose designed lifting beam. This incorporated multiple slinging positions for different lengths of product and a central lifting hook for general duties.



During the risk assessment of the project, we identified the possibility of one hoist being accidentally overloaded which could cause an overturning moment on the crab, lifting one side up. To counteract this, we fitted the crab with physical lift stops, electronic anti-tilt switches which inhibit the hoist function if tilt occurs, and sufficient counter balance between the beams to overcome the turning moment. Finally, on installation we carried out a proof load of each hoist to ensure that the opposing hoist did not lift.



Both cranes were fitted with Flex radio control to allow either "Hoist A", "Hoist B" or "Hoists A and B" to be operated, allowing the operator to adjust an uneven load if required.

To further help improve the control of the load, frequency inverters were fitted to the existing cross travel function, to give a gentle acceleration and deceleration of the motion, helping to reduce load swing, protect the motors and minimise brake wear.

The result

This project was an excellent example of recycling in action, and a great saving for the customer in comparison to the additional cost for new equipment.



The system worked exceptionally well due to the stability of the lifting beam and the ease of slinging to the designated points along the beam, loads can be slung and transported by a single operator in a controlled and safe manner.

**For all your lifting and crane service enquiries
contact Sales on 01384 370318**