

## **1.2.20 Lifting Equipment**

### **1.2.20.1 Overhead Travelling Cranes**

- A. Where overhead travelling cranes are specified, the installation shall be to the following minimum standard.
- B. The cranes shall be designed in accordance with BS2573.
- C. Runway beams shall comply with the requirements of BS 2853. Cranes with electrically powered motions shall comply with BS466: Class 2 Medium duty operation unless otherwise specified in the particular specification. The term 'crane' shall be deemed to include gantry rails, access maintenance platform, power collection, end stops and all other items required for a complete installation.
- D. Operation shall be from ground floor level or from the level of the lowest item of the plant. Hand chains shall loop 600mm above operating floor level, and shall not require a force greater than 25kg to operate at maximum load. Electrical control shall be by pendant push-button and shall be electrically and mechanically interlocked to prevent inadvertent operation of opposing controls. Wired pendants shall be supported independently of the electric cable. The control voltage shall be low/safe. Inching facilities on all motions shall be provided where accurate positioning of equipment is required.

Consideration shall be given to the provision of an emergency stop to be included on the pendant.

- E. Cranes shall be fitted with limit switches, and mechanical end stops to prevent excess travel over hoisting/over lowering.
  - Overload switches and/or slipping clutches shall be fitted to prevent overloading.
  - Electrical motions shall have limit switches on all motions.
  - All motors shall be of quick reversing type with electro-mechanical brakes suitably sized for operation under the design conditions.
- F. Festoon cables shall be used for all motions unless the downshop distance is greater than 20m or usage is high, when a set of four shrouded conductors shall be used. In that case, the power collection equipment shall have renewable contact pieces. Should the operating environment be particularly aggressive,