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O'Hare & McGovern-West End Lane, West Hampstead, London, NW6 Block E
Method Statement Installation Procedure

- 1) Deliver hoist
- 2) Off load, position & build up base unit
- 3) Start to erect mast
- 4) Erect super structure, ties & mast
- 5) Fit landing gates / run- offs
- 6) Fit inter-lock systems
- 7) Carry out final safety checks
- 8) Carry out drop test & SWL test
- 9) Thorough Examination / hand over hoist to site

The hoist being installed is a 20/32 Single Cage goods/passenger hoist 2000kgs SWL

- 1) **Deliver hoist;** Delivery will be via the pre determined site wide access route. Entering site delivery entrance, Agree offloading plan with Site Appointed Person/ Banksman.
- 2) **Off load, position & build up base unit;**
 - a) Set up & manage exclusion zone around hoist location, consider interface with other trades. Determine size and suitable area with Site Management, display exclusion zone with suitable signage
 - b) For accessing the bed of the lorry for slinging, adopt the following;

Place Outriggers of lorry on 500mm x500mm pads, Unfold lorry Loader and attach a fall arrest inertia reel, attach tag line to the inertia reel hook. The lorry loader will be positioned over the hoist cage on the bed of the lorry. Instruct Lorry loader operator not to operate the lorry loader and to await further instructions. Use Hand signals if necessary. Pull the Tag line to release the inertia reel, connect to safety harness of the slinger. Use footed ladder to access the lorry bed.

c) Connect lorry loader lifting slings to lifting point on hoist. Dismount Lorry bed and disconnect inertia reel. When safe to do so, slinger signaller to instruct lorry loader operator to take slack up on lifting chains. Release transport straps from hoist. Lift hoist from bed of lorry and position, remove lifting chains. Re-position lorry loader over lorry bed, re-connect inertia reel to harness and access lorry bed. Sling mast sections, dismount and disconnect inertia reel. When safe to do so, slinger signaller to instruct lorry loader operator to take slack up on lifting chains. Release transport straps. Lift mast sections from bed of lorry and position on the ground adjacent to the hoist location. Repeat until all mast sections and ancillary equipment is offloaded and correctly positioned.

e) Lorry to de-rig, traffic marshall to guide lorry off site.

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3) Start to erect mast

a) Site to provide 1 xamp, 415 volt 3 phase power supply's to local isolator's within 3mtrs of hoist position. Site to provide a qualified electrician is to connect site supply to hoist base panel.

b) Check hoist for correct functionality.

Lift erecting jib through roof escape hatch, locate into carriage jib post on roof of hoist. Inspect prior to use.

c) 1) Use of erecting jib;

Lower erecting jib hook off the side of the hoist, sling mast section and connect to lifting jib hook. Lift mast section over handrails, rotate jib and lower mast section onto hoist roof. Repeat and position (max 6no mast sections onto hoist roof. Use erecting jib, sling and lift a mast section onto the base mast. Secure with 4 no mast bolts and tighten to correct torque. Release sling. Drive hoist up until top hoist cage is level with the top of the previously fitted mast section, fit next mast section as previously described. Continue to fit mast sections until a maximum of 6no are fitted in total.(including those in the base section)

d) Drive hoist down, 1no operative exit hoist cage. 2nd operative release base gate mechanism, drive hoist up mast approx 5ft deploy emergency stop button, Turn off power to hoist. 2nd operative remove access panel in hoist cage and expose mast rack, bolt chock block to rack to prevent hoist from falling. 1st operative access hoist chassis under chocked cage; use 110v electro-pneumatic drill. Drill 25mm holes through pre determined fixing holes in hoist chassis into concrete foundation slab. Fix pre cut lengths of M16 H.T 8.8 Grade studding into M16 Rawlbolt Anchors, insert through hoist chassis into concrete foundation, Fit nuts & Washers and tighten to correct torque 120Nm. Exit hoist chassis location, close gates, and turn on power. Alert 2nd operative to drive hoist down when safe to do so.

e) Repeat 3 c1, until mast is at 1st tie position

4) Install Mast, Ties, & over-run mast

a) Load hoist cage with superstructure tubes, spigots, 2 x heavy Y frames, fixing components, 3" x 3" structural couplers.

b) From hoist roof, fit spigots to superstructure starter tubes in base x 3, lift superstructure tubes onto spigots and tighten clamp bolts,(repeat for fitting tubes on top of each other) lift and secure light Y frame to mast and centre superstructure tubes, lift and secure landing beams across superstructure tubes. Repeat until level with tie position, do not fit light Y frame at the tie point, fit and secure heavy Y frame.

c) Fix ties (Type 2 configuration, Refer to Drawing LHNT042-E for tie locations)

Work from Scaffolding and hoist roof, Exit hoist onto scaffold run off. Position purpose made tie bracket to the face of the slab and mark location of fixing holes. Use 110v electro pneumatic drill and drill in the exposed floor slab face. Clean Holes to remove excess dust. Insert M16 rawlbolt anchors fitted with pre-cut lengths of 16mm studding into the holes. Fit tie bracket over studding and secure with M16 nuts and washers. Repeat for all tie brackets. Bolt Hoist tie tubes to tie bracket, tighten and secure. Connect Tie tubes to hoist tie assembly using 3" x 3" structural couplers. Inspect the complete tie arrangement prior to proceeding to add additional mast sections.

d) Repeat 3 c1, 4 a, b, c, until desired height is achieved

Fit ultimate and top limit ramps to top mast section and remove the last rack section from the top mast section above the ultimate and top limit ramps. Maintain a MINIMUM final mast over-run of 1500mm from the top of the hoist cage unit, to the top of the highest mast section.

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5) Fit Landing Gates , (Hoistway Protection Panels & Infills (if supplied by London Hoist)

- a) Load landing gates onto hoist roof with erecting jib, drive hoist to 1st landing location, lift gate with jib and swivel into position. Fix scaffold tube across superstructure with 3" x 2" clips, fit top landing gate clips to scaffold tube, secure gate clips and repeat for bottom of gate. Repeat for all gates.
- b) Load hoistway protection panels into hoist. Drive the hoist to 1st landing location, Unload 3 no panels onto landing. Fit 2no 3" u-bolts onto each panel and secure around superstructure tubes. Fit 1no panel to each side of landing gate and 1 panel between centre superstructure tubes.
- c) Load Landing infill plates into hoist. Drive hoist to 1st landing location. Secure infill plate to bottom of each landing gate threshold with 2 no M10 Bolts nuts & washers. Tighten & secure

6) Fit inter-lock systems;

Plug in gate circuit commando plug (gate circuit is connected in series, each gate lead is connected to proceeding gate) repeat for all gates, secure gate circuit cables to superstructure with cable ties or insulation tape. On Final gate fit dummy plug to complete the circuit. Check functionality of gates and electrical switch circuit. Ensure hoist does not operate when a gate is open; ensure gates do not open when hoist is not at landing.

7) Carry out final safety checks;

Once the hoist is erected to the full height and all landing gates have been fitted, a full visual inspection will be carried out on all foundation bolts, structure, ties and tie anchorages to ensure security. The cage will then be travelled over the full operating distance to check the functioning of the controls, brakes and limits.

8) Carry out drop test & SWL test

Load cage with measured test weights equal to that of the payload capacity of the hoist. Drive hoist up and down checking that the carriage stops automatically and in the correct position at its top and bottom terminal levels. The load is gradually increased to 25% overload of the Safe Working Load of the hoist. Access the hoist control panel; plug in drop test hand-pod. Drive hoist up to 2nd landing. Activate drop test button to fire safety device. Drive hoist up approx 1.5m, activate down button on hand-pod to edge hoist down at 1/3 of operating speed. Re-set safety device to release brakes; Un-plug hand-pod, check normal use of hoist.

9) Thorough Examination / hand over hoist to site

On completion of the above tests (section 8), the hoist will be fitted with all necessary signage (stating the Safe Working Load and the number of allowed passengers), Carry out Thorough Examination and complete Record of Thorough Examination & Test Certificate, the Site Register will be signed and the hoist handed over for use.

Erectors must ensure that the hoist or hoists for a twin, is isolated whenever they leave the hoist from the base panel of the car.

During the hoist erection the hoist should not be used in winds of excess of 28 mph



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Installation to be carried in accordance with the manufacturers' recommendations and to be fully compliant with BS7212, EN12159