

5 July 2018



All Suppliers, Owners and Users of Material Hoist Authorised Examiners, WSH Officers and Other Interested Parties

SAFETY CIRCULAR ON SAFE USE OF MATERIAL HOIST FOR THE CARRYING OF GOODS WITHOUT PERSONS FROM ONE DEFINED LEVEL TO ANOTHER

This circular serves as a reminder to stake-holders of their statutory duties under the Workplace Safety and Health Act (WSH Act) with regard to ensuring the safe use of goods or material hoist (hereafter named as material hoist) at workplaces. A material hoist has a cage or platform that travels within a hoistway and its direction of travel is restricted by guide(s). Such equipment is permanently installed in a workplace to raise or lower materials from one level to another in a fixed vertical direction. These material hoists are either suspended by ropes/chains or by winch/electric powered hoist or on fixed platform raised and lowered by other means such as hydraulic system.

Design Requirement

- 2. The Occupier of the workplace where such material hoist is used is required to engage a Professional Engineer (PE) to conduct a thorough review of the adequacy of the design of the said hoist including its supporting structure to ensure that the design is in accordance with the manufacturer's specifications and safe for its intended use. Thereafter, the Occupier has to ensure that the hoist is erected or installed in accordance with the design and is safe for its intended use.
- 3. Every such material hoist and every enclosure shall be constructed such that it prevents any part of any person or any goods carried in the hoist being trapped between any part of the hoist and any fixed structure; or the counterbalance weight and any other moving part of the hoist.

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4. Under Regulation 19(1) of the WSH (General Provisions) Regulations, the Occupier of the workplace where such material hoists are used are required to ensure the hoist is tested and examined by an Authorised Examiners (AE), and issued with signed certificates of test and examination, prior to use. The hoist shall be tested and examined by an AE at least once every 6 months. All AEs shall note that the "hoist" should be classified under the classification code of either 201 Hoist - Lifted by ropes, 202 Hoist - Rack & Pinion, 203 Hoist - Hydraulic, or 209 Hoist - not elsewhere classified.

Safety Devices

- 5. Regulation 19(4) and 19(5) of the WSH (General Provisions) Regulations, requires the Occupier to ensure the hoist-way which the hoist travels, is protected by substantial enclosure fitted with gates that will, when the gates are shut, prevent any person from falling down the way or coming into contact with any moving part of the hoist. In addition, the gate shall be fitted with efficient interlocking or other devices to ensure that (a) the gate cannot be opened except when the cage or platform is at the landing; and (b) the cage or platform cannot be moved away from the landing until the gate is closed.
- 6. Occupiers of the workplace where such material hoists are used, are to ensure all safety devices provided by manufacturers and suppliers are in good working order and that they are properly maintained to ensure its continual operability and effectiveness. In addition, for periodic statutory inspection, AEs are required to test, examine and certify that all the said safety devices are in place and that they are in good working order.
- 7. MOM reminds all Occupiers and personnel engaged in the use of such material hoist that it is an offence under the WSHA to by-pass or remove such safety devices installed or fitted to the hoists. MOM will not hesitate to take stringent enforcement action against any person who wilfully bypass or remove such safety devices from the hoists.

Safe Work Procedure and Emergency Response

8. Occupier shall also develop and implement a safe work procedure to ensure the material hoist are used safely. Occupier shall also ensure that personnel engaged in the use of such hoist shall also be made aware of the actions to take in the event of emergency such as malfunction of hoist, or unintended movement of hoist.

Reminders to AEs on Carrying Out Testing and Examination

9. AEs are reminded that during the conduct of testing and examination of the hoist, they must exercise due diligence and not accept an inadequate or unsafe design of the hoist. AEs shall also carry out such test and examination personally and the appointment of a proxy / another person to conduct inspection on behalf is not allowed. AEs are also reminded that all certificates of test and examination for hoist must be issued via the Ministry of Manpower's iOSH system.

Report to MOM on any Unsafe Material Hoist

- 10. The Ministry would like to invite all stakeholders to report to us upon discovery of any unsafe material hoist found without proper certification by an AE. Such reports could be directed to Ms Lee Guek Hoon at email: Lee_Guek_Hoon@mom.gov.sg or tel: 66925080. You could also contact Ms Lee for any feedback or clarification needed on this matter.
- 11. The relevant statutory duties with respect to the safe use of the hoist are summarised in \underline{Annex}

12. The above requirements are for your immediate compliance.

ER. TAN KEE CHONG

FOR COMMISSIONER FOR WORKPLACE SAFETY AND HEALTH

OCCUPATIONAL SAFETY AND HEALTH DIVISION

MINISTRY OF MANPOWER

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ANNEX A

WORKPLACE SAFETY AND HEALTH (GENERAL PROVISIONS) REGULATIONS

Hoists and lifts

- 19.—(1) No hoist or lift shall be used in a workplace unless an authorised examiner has
 - (a) tested and examined the hoist or lift after its installation; and
 - (b) issued and signed a certificate of test and examination, specifying the safe working load of the hoist or lift.
- (2) The certificate of test and examination referred to in paragraph (1)(b) shall be kept available for inspection.
- (3) Subject to paragraph (10)(c), every hoist or lift used in a workplace shall be thoroughly examined by an authorised examiner at least once every 6 months or at such other intervals as the Commissioner may determine.
- (4) Every hoistway or liftway used in a workplace shall be efficiently protected by a substantial enclosure fitted with gates that will, when the gates are shut, prevent any person from falling down the way or coming into contact with any moving part of the hoist or lift.
- (5) Subject to paragraph (10)(b), any gate referred to in paragraph (4) shall be fitted with efficient interlocking or other devices to ensure that
 - (a) the gate cannot be opened except when the cage or platform is at the landing; and
 - (b) the cage or platform cannot be moved away from the landing until the gate is closed.
- (6) Every hoist or lift and every enclosure referred to in <u>paragraph (4)</u> shall be so constructed as to prevent any part of any person or any goods carried in the hoist or lift being trapped between
 - (a) any part of the hoist or lift and any fixed structure; or
 - (b) the counterbalance weight and any other moving part of the hoist or lift.
- (7) Every hoist or lift shall be marked conspicuously with the maximum working load which it can safely carry.
- (8) No hoist or lift shall be used in a workplace to carry a load exceeding its maximum working load.
- (9) The following additional requirements shall apply to lifts used in a workplace:
 - (a) efficient automatic devices shall be provided and maintained to prevent the cage or platform from over-running;
 - (b) every cage shall, on each side from which access is afforded to a landing, be fitted with a gate with efficient devices to ensure that, when persons or goods are in the cage, the cage
 - (i) cannot be raised or lowered unless all the gates are closed; and
 - (ii) will come to rest when a gate is opened; and

- (c) where the cage or platform of the lift is suspended by rope or chain
 - (i) the cage or platform shall be separately connected with at least 2 ropes or chains, each rope or chain and its attachments being capable of carrying the whole weight of the cage or platform and its maximum working load; and
 - (ii) efficient devices shall be provided and maintained which will support the cage or platform with its maximum working load in the event of a breakage of the ropes or chains or any of their attachments.
- (10) In the case of a hoist or lift used in a workplace which is not powered with mechanical power
 - (a) paragraph (9) shall not apply;
 - (b) the gate referred to in <u>paragraph (4)</u> shall be kept closed and fastened except when the cage or platform is at rest at the landing; and
 - (c) a thorough examination of the hoist or lift shall be carried out at least once every year by an authorised examiner.
- (11) Where a hoistway or liftway inside a workplace passes through 2 or more floors
 - (a) the hoistway or liftway shall be completely enclosed with fire-resisting materials, except that the top shall be enclosed only by some material easily broken in case of fire, or be provided with a vent; and
 - (b) all means of access to the hoist or lift shall be fitted with doors of fire-resisting materials.
- (12) It shall be the duty of the occupier of a workplace in which a hoist or lift is used to comply with paragraphs (1) to (11).
- (13) It shall be the duty of an authorised examiner to
 - (a) issue and sign a certificate, in a form determined by the Commissioner, of the result of the examination referred to in paragraph (3);
 - (b) provide the certificate referred to in <u>sub-paragraph</u> (a) to the occupier of the workplace;
 - (c) inform the Commissioner
 - (i) as soon as is reasonably practicable, if the examination shows that the hoist or lift cannot continue to be used safely unless repairs are made; or
 - (ii) in any other case, within 28 days of the completion of the examination, of the results of the examination in a manner acceptable to the Commissioner; and
 - (d) exercise all due diligence in making any certification or in conducting any test or examination of any hoist or lift under this regulation.
- (14) For the purposes of this regulation, no lifting machine or appliance shall be considered to be a hoist or lift unless it has a cage or platform and the direction of movement of the cage or platform is restricted by a guide or guides.
- (15) This regulation shall not apply to any lift which has been inspected and tested under the Building Maintenance and Strata Management (Lift and Building Maintenance) Regulations 2005 (G.N. No. S 194/2005) and for which a Certificate of Lift Maintenance and Testing has been lodged with the Commissioner of Buildings