



MINISTRY OF
MANPOWER

Date: 4 March 2013

**All Suppliers, Owners and Users of Gantry Cranes
Authorised Examiners (Lifting Equipment), and
Other Interested Parties**

SAFETY CIRCULAR ON SAFE OPERATION OF GANTRY CRANES AT WORKPLACES

On 23 Oct 2012, a worker was trapped and crushed to death between a moving gantry crane and a stack of prefab concrete slabs at a precast yard. The gantry crane was operated by an operator using a remote control to lift a pre-cast column onto a trailer. Preliminary findings revealed that there was not enough safety clearance between the gantry crane and the stack of concrete slabs. This created a hazardous zone for the trapping and crushing of persons. This circular serves as a reminder to duty-holders of the key safety requirements with respect to the safe operation of gantry cranes at workplaces.

Design Requirements for Gantry Cranes

2. All gantry cranes to be used in the workplace shall comply with the Approved Code of Practice, **SS497:2011 Code of Practice for Design, safe use and maintenance of gantry cranes, overhead travelling cranes and monorail hoists** or other internationally acceptable design codes or standards. This would include ensuring that the gantry cranes are equipped with all the required safety devices (e.g. Overload Limiter, Hoisting and Lowering Motion-Limiters, Working Space Limiters, Crane to Crane Motion-Limiters etc).

Occupational Safety and Health Division

1500 Bendemeer Road

Singapore 339964

Tel : (65) 64385122

Facsimile : (65) 6535 6726

Website : <http://www.mom.gov.sg/oshd/>

Email : mom_oshd@mom.gov.sg



Layout Requirements for Installation of Gantry Cranes

3. In addition, with respect to layout requirements and considerations for the installation of gantry cranes, Occupiers are also reminded to comply with **SS567:2011 Code of Practice for Factory Layout – Safety, Health and Welfare Consideration**. In particular, the Occupier has to take reasonable practicable measures to ensure the safe means of access to or egress from every place of work at or near the gantry crane. Also, the said workplace shall not be congested with machinery, materials or products so as to cause risk of injury to persons. Adequate space shall be allocated for storage of materials or products. Further details on the requirements can be found in section 2.11 - Bridge, gantry and overhead travelling cranes of SS567:2011.

Safety Clearance Requirements for Gantry Crane's Tracks

4 To address the risk of trapping or crushing of persons working at or near the tracks of a gantry crane, an unobstructed passageway of at least 750mm in width on each side of each rail, shall be maintained parallel to and extending the entire length of the tracks upon which any gantry crane is operated. This requirement is clearly stated in clause 15.3.1 of SS497:2011 and clause 2.11.11 of SS567:2011. **Authorised Examiners are reminded to check the compliance of the above requirement during the commissioning of the gantry crane as well as during the subsequent periodic statutory examinations.**

Implementation of Lifting Plan for lifting operations using Gantry Cranes

5. MOM would like to reiterate the requirement on establishment and implementation of a proper Lifting Plan for lifting operation carried out using gantry cranes. Regulation 4 of the WSH (Operations of Cranes) Regulations 2011 states that where any lifting operation involving the use of any crane is carried out in a workplace by a crane operator, it shall be the duty of the responsible person to establish and implement a Lifting Plan which shall be in accordance with the generally accepted principles of safe and sound practice. For reference, Occupiers and responsible persons are advised to refer to the Code of Practice on Safe Lifting Operations in the Workplace for further practical guidance on the implementation of the Lifting Plan. The Code is available for download at <https://www.wshc.sg/cms/CraneResources>.

6. The above requirements are for your immediate compliance.

Yours faithfully,



ER. MOHD ISMADI
FOR COMMISSIONER FOR WORKPLACE SAFETY AND HEALTH
OCCUPATIONAL SAFETY AND HEALTH DIVISION
MINISTRY OF MANPOWER

Date of issue:	Classification:	Circular No:
4 March 2013	Overhead & Gantry Cranes	OSHD/SPECS/ESB/LE/01-2013