

HEALTH AND SAFETY ADVISORY

Tower Crane Hoist Brakes

Hazard

Recent incidents investigated by Ontario's Ministry of Labour, Training and Skills Development (MLTSD) found that tower cranes were not completely holding their loads when the hoist brakes were engaged. **If the brakes of a tower crane hoist fail to hold a load, it can result in injury to workers and the general public, as well as property damage.**

Manufacturer instructions are very specific regarding the procedure required to test new brake components. These procedures must be followed to ensure that brakes get an adequate contact pattern of the friction surface and reach full brake application.

Controls

Follow the safe work practices below:

- The tower crane must be maintained in a condition that does not endanger a worker.
- Manufacturer's instructions must be followed to test new brake linings before putting the tower crane into service.
- The tower crane must be inspected by a competent worker to determine whether it can handle the rated capacity of the load and to identify any defects or hazardous conditions.
- Every replacement part for the tower crane must have at least the same safety factor as the part it is replacing.
- The owner of the tower crane must keep a permanent record of all inspections and tests performed on the crane as well as all repairs and modifications made to the crane.



Location & Sectors

Tower cranes are utilized throughout Ontario's Residential Highrise sector and in many Industrial, Commercial, and Institutional (ICI) construction projects.

Regulatory Requirements

Sections 93, 94, 95, 152, and 154 of the Construction Projects regulation (O. Reg. 213/91) under the *Occupational Health and Safety Act* (OHSA) outline the regulatory requirements for equipment in general and cranes in particular.

A publication of the Highrise Forming Labour-Management Health and Safety Committee
in partnership with the Infrastructure Health & Safety Association