

Personnel and material hoists

This Safety Alert highlights the importance of thorough inspections and maintenance and the dangers of hoist component failure.

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Background

There have been a number of recent near-miss incidents where components have failed or fallen from hoists. Each incident had potential to cause death or serious injury.

The following examples of component failure show how thorough inspection and maintenance programs can prevent or significantly reduce the risk of serious incidents.

Example 1

The pictures below show a wind guide cable retainer (rubber flippers) in good condition and retaining the cable, followed by the same wind guide where the worn or broken flippers will allow the cable to escape and become 'snagged' when the car next travels.

The third picture shows a 10 kg wind guide that was torn from a mast and fell 15 metres narrowly missing a worker on the ground below.



Example 2

A bolt securing the top roller set to a car bracket at a high rise construction site failed, causing the roller set to separate from the bracket and fall several floors. The poor condition of the roller set and bolt was not detected during inspection or maintenance.

Example 3

Loose 'J' bolts securing the upper limit bracket to a hoist tower mast caused the bracket to dislodge, damaging a junction box on the top motor and then falling about 40 floors. The loose 'J' bolts were not detected during inspection or maintenance.

Example 4

A top roller set wheel was worn out internally, causing vibrational disturbance during operation. The fault was not detected during inspection or maintenance. Fortunately the fault was detected due to the vibration and repaired, preventing further damage.

Control measures

WorkSafe expects the following controls are implemented when using hoists:

- ensure a regular and thorough maintenance program is in place
- obtain documentary evidence of compliance with the manufacturer specifications from contractors installing and/or servicing hoists
- ensure operators are familiar with functions and manufacturer specified pre-operational checks for each specific model of hoist in use
- when servicing hoists, ensure contractors provide evidence of the components serviced and the acceptance specifications of these components
- where practicable, consider extending over-head protection in proximity of hoist access/egress points beyond minimum specifications or 'no-go zones' implemented.

Further information

- Manufacturer /supplier specifications.
- Australian Standards:
 - AS 2550.7 (1996) - *Cranes - Safe use - Builders' hoists and associated equipment.*
 - AS 1418.07 (1999) - *Cranes (including hoists and winches) - Builders' hoists and associated equipment.*

Contact details

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For more information on occupational health and safety, go to WorkSafe's website: worksafe.vic.gov.au

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